

BISHOP MODRE COLLEGE MAVELIKARA, KERALA, INDIA-690110



SELF STUDY REPORT

Re-accreditation Cycle-III

Sumitted to NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL BANGALORE April, 2016



Bishop Moore College

KALLUMALA P. O., MAVELIKARA, KERALA, INDIA, 690110

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(Established in 1964)

(Affiliated to the University of Kerala, Thiruvananthapuram)

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Bangalore 560 072, India

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PREFACE

Bishop Moore College, Mavelikara is immensely glad to present before the National Assessment and Accreditation Council its Self Study Report, as part of the preparation for its third cycle of reaccreditation.

The College is owned and managed by the Madhya Kerala Diocese of the Church of South India (CSI). The Management of the College inherits the rich legacy of the Anglican Missionaries who established the first College in India (CMS College), printed the first magazine (Njananikshepam) and the first grammar book in Malayalam and started the first school for girl children. They also took education to the remotest parts of the land thereby liberating the bonded laborers with the torch of education. Their contribution was instrumental in bringing about the high social and human development in this part of the land. The Bishop Moore College was another step in this direction to redeem the masses seeped in ignorance in to the knowledge of the Truth.

Established in 1964, the College has always been a living and vibrant memorial to Rt. Rev. Edward Alfred Livingstone Moore, a missionary bishop from England whose life of simplicity and principles of sacrifice are worth emulating. He came to Travancore (as this part of Kerala was then known) as Bishop of the Travancore- Cochin Anglican Diocese, which is the forerunner of the present Management of the College. He was a visionary with practical wisdom, who toiled for the uplift of the downtrodden through the channels of education and medical care.

Ever since its inception, the institution upholds its vision to be a centre of excellence and a catalyst in facilitating a holistic development of youth with international standards, edified with the sanctity of truth, equipped to serve, grounded on Christian ideals. From a humble beginning, the College has witnessed scintillating growth, emerging as top notch institution in the realms of higher education. The social commitment and success of the institution is evident from the off-shoots that have sprouted from its branch viz. the Bishop Moore



Vidyapeeths (Higher Secondary Schools) at Kallumala, Kayankulam and Cherthala. The Bishop Moore College for the Hearing Impaired at Adoor is the latest endeavor to provide learning opportunities to the physically challenged and marginalized.

The college is registered under 2(f) and 12(B) of the UGC Act. The National Commission for Minority Educational Institutions of the Government of India has declared the college as Minority Educational Institution, covered under section 2g of the NCM EI Act 2004 in 2010. It is affiliated to the University of Kerala and is a grant-in-aid institution from the Government of Kerala.

This Self Study Report (third cycle) collates the academic, administrative, extra-curricular and co-curricular activities conducted in the college during the period 2010-2016. The activities are classified as per the 7 elements of Criteria stipulated by NAAC. We have put in our best efforts, facilitated by the IQAC, to consistently and continuously improve in all aspects emphasized by NAAC. This is a collective, dedicated and concerted effort of the institution. At this juncture we gratefully acknowledge the National Assessment and Accreditation Council for giving us an opportunity to delve in to our merits and demerits, strengths and weaknesses, opportunities and challenges and to ultimately strive for excellence in all efforts.

Dr. Sabu George PRINCIPAL



B. EXECUTIVE SUMMARY

Criterion I: Curricular Aspects

Bishop Moore College affiliated to the University of Kerala offers 11 Under Graduate and 4 Post Graduate programmes, besides research programmes in Chemistry and Physics. The Choice based Credit and Semster System (CBCSS) is followed for all the Under Graduate programmes and Semester System is followed for all the Post Graduate programmes. The University designs and modifies the curriculum for all the UG and PG programmes, however, the College designs the syllabus for the Add on Courses and Certificate Courses. The College participates in the Syllabus Revision and Curriculum Planning and Implementation through its faculty members who are members of Statutory bodies of the Six members of the faculty are on the various Boards of Studies of the University. In the initial stages of implementation of CBCSS by the University, the faculty of the College put in remarkable contribution by participating in workshops and setting up patterns of evaluation and documentation. The introduction of CBCSS in 2010 by the University offers the College greater flexibility in offering Elective and Open Courses at Under Graduate level. The respective Departments decide on the electives that need to be included in the Under Graduate and Post Graduate programmes. All programmes are offered in the modular form. The College introduced MSc in Botany (2013) and BCom -Computer Application (2014) and four Add on Courses during the last five years in Polymer Nanocomposites, Diploma Course in Web Designing and Office Automation, Certificate Course in Journalism and Mass Communication and Certificate Course on Medical Lab Technology. Besides this, Additional Skills Acquisition Program (ASAP), a skill development initiative undertaken by the College in collaboration with the Government of Kerala, enables students to acquire job oriented skills. The institution has always fostered interaction with the University, research bodies and industry for curriculum enrichment. The College has a formal mechanism of obtaining feedback. The system is developed and modified by the IQAC.



Criterion II: Teaching – Learning and Evaluation

The enrolment in to the College for all UG and PG programmes is based on the Centrallised Allotment Process of the University of Kerala. The College strictly adheres to the Government and University norms in matters of admission. Seats are reserved for the Scheduled Caste, Scheduled Tribe, Minority Communities, Persons with Disability, and Sports persons. Special weightage is given for Children of Service Personnel, and for service in the NCC and NSS. Transparency is ensured in the admission process at all stages. The social, economic and geographical profile of the applicants is considered in admissions to seats under community merit and management quota. The College follows the University Calendar and the teaching Plan is completed within the time frame. Seminars, retreats and training sessions are arranged for teachers. They are also encouraged to participate in Orientation and Refresher Courses to update and refresh their knowledge levels. Teaching methods are adapted as per the needs of the students. The SSP (Scholar Support Programme) offers remedial classes for slow learners, the WWS (Walk With the Scholar) Programme caters to the advanced learners to help them reach the zenith of their dreams. Coaching facilities are provided for the NET, JRF, Civil Services and other competitive examinations. Infrastructural support like smart classrooms, well-equipped laboratories, well-stacked library with reading space, computer lab with internet connectivity make learning more student friendly. Regular mentoring and counselling help students to improve their academic performance and psycho-social levels. 57 faculty members serve the College, 25 of them have PhD as their highest Degree and 13 have M. Phil. The current teacher-student ratio is 1:6.5 at the post graduate level and 1:20 at the undergraduate level. Evaluation of academic performance is two-fold: formative, conducted internally, and summative, conducted by the University. Scores at the formative level account for 20% in the case of UG programmes and 25% in the case of PG programmes. Summative accounts for 80% and 75 % respectively for UG and PG programmes. The components of formative evaluation are attendance, seminars, assignments and written examinations. The summative evaluation is based on written examinations conducted by the University, practicals, student projects and viva-voce too form part of this level. The results obtained for all of the programmes are above the



University average. The College focuses on its learning outcomes by designing strategies to achieve optimum outcome in academic excellence, social concern, environmental consciousness, critical thinking and ethical values. Student performance and learning outcome are assessed through feedback from students, parents and alumni. Internal Academic audit is conducted on a regular basis by the Management.

Criterion III: Research, Consultancy and Extension

Rapid strides were made in the field of research during the assessment period. About 90% of the faculty are engaged in research either in the capacity of Research Guides, PhD Scholars or as Principal Investigators. Six major research Projects and 29 Minor research projects were undertaken during the period. A total of Rs.1,48,53,857 was received as research grants from various agencies. Our Research output consist of 83 International publications, 71 National publications and 65 papers in International/National proceedings. The institution organised 3 International Conferences and 14 National Seminars/Conferences during the review period and 12 International/National proceedings have been published. The College has 8 Research Guides and 14 scholars pursuing research under them. The central library, research laboratories, computer center, e-learning rooms and INFLIBNET are the chief facilities open for researchers. Tie-ups with various agencies promote collaborative research.

The Department of Physics and the Department of Chemistry are recognized research centres of the University of Kerala. They are also recognized as DST-FIST sponsored departments eligible for a grant of Rs.1 crore from the Government of India for the development of research facilities. The Department of Chemistry came into international prominence when Dr. Laly A. Pothan was conferred the FRSC (Fellow of the Royal Society of Chemistry) in 2012. She was also awarded the Emeritus Fellowship by the UGC in 2013. A National patent for the preparation of nanofibres titled 'process for synthesis of nanofibrils of natural fibres by steam explosion' was another major recognition for the Department. Dr. Laly A. Pothan also received the Vasudev Award for the best research work among projects funded by Kerala State Council for Science, Technology and Environment

(KSCSTE) in 2010. Dr. D. Sajan received the **DST – Young Scientist Award** in 2013. The Departments of Physics and Chemistry have research collaboration with the University of Antwerp, Charles University in Prague, University of Helsinki, Bhabha Atomic Research Centre, Mangalore University, Raman Research Laboratory, Lulea University of Technology, Sweden, Agro Paris Tech, France and Hebrew University, Israel.

The College has two NSS and two NCC units. The College became a **Training Partner Institution of the State Government's ASAP** to offer training in communication skills and soft skills for graduates and postgraduates from all over the State. Students are trained in good citizenship through organizations like NCC, NSS and extension activities of various clubs. The NSS unit of the College received the Indira Gandhi National NSS award for the year 2012-2013.

Criterion IV: Infrastructure and Learning Resources

The College has 19 acres of land in its possession. The edifice of the College houses the administrative offices, 67 class rooms, 10 department rooms, 15 laboratories, 3 computer labs, one media room, 3 IT enabled seminar halls, an auditorium, central library, 2 Women's Hostel, Women's Centre, Canteen, Gymnasium and Chapel. Sports facilities include Basket Ball court, Volley ballcourt, shuttle court, Playground with stadium.

The College offers infrastructure facilities for curricular and extracurricular activities. The College has in its possession land area of nearly 19 acres. The main structure has administrative offices, 67 class rooms, 15 laboratories, 3 computer labs, one media room, three IT enabled Seminar Halls, an Auditorium., a Central Library, Basket Ball Court, and Women's Hostel (PG&UG). PG Womens Hostel was constructed during the review period utilising the UGC fund. During the last five years, the College has expanded its physical infrastructure as per the needs of its academic growth. New block for Commerce and a computer lab, lab-cum-classrooms for newly sanctioned M.Sc. Botany, Golden Jubilee Gate, Chapel, Parking Space and Volley Ball Court include the notable additions and the renovations included Research Centre in Physics, Staff rooms, IQAC room, smart classrooms etc. A noteworthy investment in infrastructure was the installation of a generator in the



campus. Regular maintenance and upgradation ensure smooth and effective functioning of equipments/ instruments. The needs of the differently-abled are met, ramp and hand rails, a separate toilet and adequate wheel chair facility are provided. New toilets and hand wash area was constructed near Women's Centre and a new incinerator was installed. Men's toilets are renovated and a new hand wash area was constructed near the auditorium.

Criterion V: Student Support and Progression

The College Calendar and Handbook and the College website provides the basic information about support services in the College to all its stake holders. The College is situated in a rural area and caters to the academic requirements of the socially and economically backward communities. The College supports the SC, ST, OBC, OEC and financially poor students with scholarships, stipend and lump-sum grant. Another 50 scholarships are available for the meritorious and deserving students. The College has instituted a Noon-meal Scheme for the students coming from poor and destitute families. The mentoring system provides consistent psycho-social support for the mentees under a stipulated mentor. The Career Guidance and Placement Cell provides opportunities for campus placement and training to face competitive examinations and interviews. The Grievance Redressal Cell addresses the grievances of the students and staff. The Entrepreneurship Development Club provides motivation to become budding entrepreneurs. The Alumni Association, Parent-Teachers Association, Retired Teachers Association are strong supporting bodies working for the interest of the respective stakeholders. The NCC instills Nationalism and patriotism and the NSS promotes social and community involvement. One of our NCC Cadet was selected for the Youth Exchange Programme in Russia (2015) and two of them participated in the Republic Day Camp at Delhi. Arts and cultural activities are promoted through Arts festivals and cultural activities organized in the campus. The College bagged the first (2014) and second (2013) place in the University Drama Fest and Vinayak.P and Fabian Fernandez won the best actor awards in 2013 and 2014 repsctively. The College conducts the Annual Sports day with great fervor and promotes Athletics, Judo, Softball, Volleyball and Basketball. We have been the University



level winners for Judo and Softball for many years. The Multipoint Gymnasium provide facilities for health and physical fitness.

Our results are above the University average with a pass percentage of 70-80% across all the programmes on an average. 40-50% of the UG students and 3-5% of the PG students go for higher studies. The Career Guidance and Placement Cell provides opportunities to the students to get placements in reputed firms.

Criterion VI: Governance Leadership and Management

The College was established with emphatically stated vision, mission and objectives. It strives to mould young men and women for excellence in every field of life for the good of the society based on Christian ideals. The College is managed and governed by the CSI Madhya Kerala Diocese. The Management Board consists of 11 members and the Bishop is the ex-officio chairman of the Board. All policy decisions are taken by the Management Board. The Principal, being the secretary of the Management Board, implements the decisions of the Management Board. The Bursar manages the finance of the College. The Staff Council consisting of the Vice-Principal and Heads of Departments and two elected members advise the Principal on all curricular and extracurricular activities of the College. General Staff meetings are held regularly to discuss, plan and implement the programmes. Various committees are entrusted with the responsibility of overseeing and implementing the plans and programmes of various clubs and activities. Discussions at the grassroot level ensure democratic planning and implementation. The administrative mechanism ensures transparency, flexibility and innovation in keeping with the changing needs and contexts. Coordination among the various committees and their involvement in the administration process groom leadership at various levels. Academic Audits evaluate the progress made and perspective plans are prepared in programmes like Vision 2030. The IQAC facilitates the development of quality consciousness among the stake holders. IQAC coordinates, implements and monitors the quality improvement initiatives. The teachers are given opportunities to avail Faculty Development Programmes. The Management supports quality improvement strategies by promoting infrastructure development, IT enabled teaching,



opportunities to participate in Orientation and Refresher Courses. The important source of financial resources is from the Management, PTA, UGC, State Government and the Department of Science and Technology. All expenditure statements are audited by duly appointed auditors and submitted to the respective agency. Feedbacks are collected from students and other stake holders to evaluate the efficacy of the programmes and services provided by the College.

Criterion VII: Environment Consciousness Innovations and Best Practices

Environment consciousness is engrained in the being of the College. The college maintains its campus eco-friendly. It has a wealth of trees belonging to many rare species. The rare and endangered plants are preserved. Conscious efforts are taken to sustain the campus as a natural ecosystem. The initiative includes planting of saplings and installing rain-water harvesting. A Green Audit was undertaken and an effort was made to prepare a directory of the plants and trees in the campus

Innovations:

Three avenues of innovation are to be noted:

(i) Effective teaching through exhibitions, quiz competitions and dramas, thereby interacting with students from neighbouring schools and colleges. (ii) An effort to strengthen the Malayalam Wikipidea by updating and enlarging the existing stock of knowledge by the scholarly contributions of students and faculty in various spheres of knowledge (iii) The Publication Committee of the College brings out a College Handbook and a college newsletter every year. A Golden Jubilee Souvenir was also published.

Best Practices:

The college follows several practices such as a morning prayer song and a prayer in the Principal's office, a weekly worship service by the college chaplain, a good teacher-student relationship, student-centred learning, Mentoring programme, Academic Review and



Workshop, Cultural programmes like celebrating Onam and Christmas, provision of free internet access to

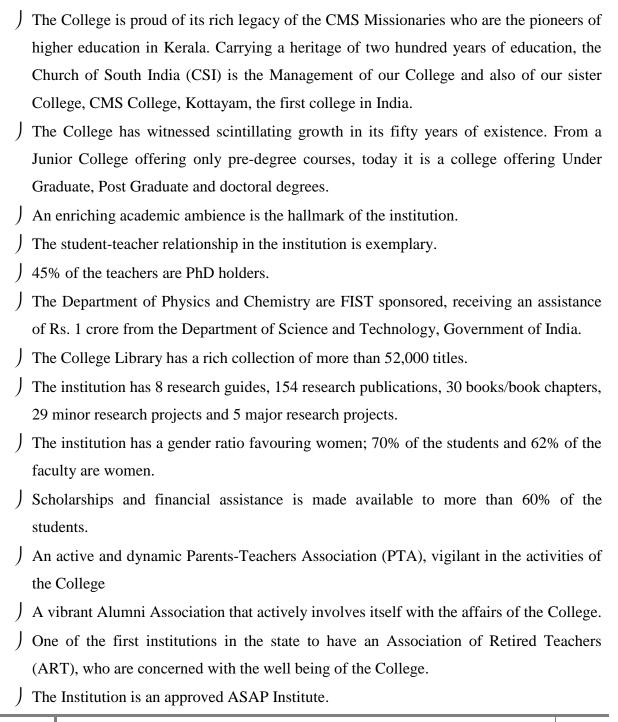
students, optimal use of ICT facilities, maintaining a learner friendly campus ambience and network with alumni.

The two specific best practices are (1) Mentoring for Holistic Growth under which a group of students meet periodically under a faculty advisor and discuss various issues and (2) Student Aid Fund (SAF) collected through the contributions from the teachers, provide free lunch, study materials, medical help, financial help for study tours and other need based assistance to students.



C. SWOC ANALYSIS OF THE COLLEGE

Strengths:



J	One of the few Colleges in the University where presidential form of election is
	permitted.
J	The institution is environment friendly, harbouring systems like water harvesting, biogas
	plant, solar energy harvesting and maintaining a green house.
J	There is a substantial green cover in the campus.
J	Well endowed with good well water, fresh air, and clean atmosphere, the College
	provides a healthy learning atmosphere.
J	The values for which the College was established do not permit rampant
	commercialization of education.
J	Road and rail proximity is an added advantage.

Weaknesses:

- The College has to adhere to the Academic Calendar framed by the University thereby limiting the academic freedom to innovate.
- The College does not have the complete authority to revise or design the curriculum.
- Collaborations with national/international research institutes and interface with industry and commercial houses is to be explored.

Opportunities:

- The College serves as a transformative and educational platform to the students who come from a low socio-economic background, thereby inculcating a change in the society.
- The College has ample infrastructural resources and manpower to offer new programmes in biochemistry, microbiology and bioinformatics.
- The UG Departments have the capability to upgrade to PG and Research Departments.
- There is tremendous scope for increasing the facilities in sports, especially establishing sports hostel for volleyball and softball.
- The tapping of renewable energy sources could be modernized and updated.

The Counselling Centre can offer more programmes to the community.

Challenges:

- The policy of the State Government to liberally sanction courses in self financing private Colleges can turn out to be an important challenge in future.
- The delay in the sanctioning of posts of faculty and staff in the newly started courses has forced the institution to rely on temporary teachers.
- The mushrooming of Professional Colleges has eroded the quality of students seeking admissions in Arts and Science Colleges.
- The shift from annual scheme to CBCSS pattern has raised many challenges.

Future Plans:

-) Construction of a new building to shift the administrative block and two other departments.
- J Starting PG courses in Zoology, Malayalam, Economics and M.Phil course in Physics.
- Upgrading the Botany and English departments to research departments.
- Applying for more number of major and minor research projects. The SARD project of KSCSTE for Rs. 40 lakhs and a major research project of BRNS for Rs. 50 lakhs are under processing.
- Increasing the number of research collaborations and industry linkages.
- Full utilization of the DST-FIST fund.
-) Improving the facilities in the College canteen.



D. PROFILE OF THE COLLEGE

1. Name and Address of the College:

Name	Bishop Moore College			
Address:	Kallumala P.O., Mavelikara			
City: Alappuzha	Pin: 690110	State : Kerala		
Website:	www.bishopmoorecollege.org			

2. For communication:

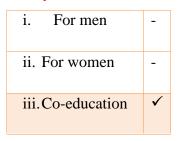
Designation	Name	Telephone with STD code	Mobile	Fax	Email
Principal	Dr. Sabu George	O: 0479- 2303260 R:0479- 2303445	9447895931	0479- 2303230	bpmoorecollege @gmail.com
Vice Principal	Dr. Jacob Chandy	0479- 2350075	9447430995	0479- 2303230	jacobchandy201 2@gmail.com
Steering Committee Co-ordinator	Dr. Ranjith Mathew Abraham	9447958509	9447958509	0479- 2303230	rnjthabraham@y ahoo.co.in

3. Status of the Institution:

Affiliated College	✓
Constituent College	-
Any other	-

4. Type of Institution:

a. By Gender



b. By Shift



5. It is a recognized minority institution?

Yes No

If yes specify the minority status (Religious/linguistic/ any other) and provide documentary evidence.

Christian Minority Institution managed by the CSI Madhya Kerala Diocese

6. Sources of funding:



- 7. a. Date of establishment of the college: 1964
 - b. University to which the college is affiliated /or which governs the college (If it is a constituent college)

 University of Kerala, Thiruvananthapuram
 - c. Details of UGC recognition:

Under Section	Date, Month & Year	Remarks(If any)
	(dd-mm-yyyy)	
i. 2 (f)		
ii. 12 (B)		

(Certificates of recognition u/s 2 (f) and 12 (B) of the UGC Act are enclosed)

d. Details of recognition/approval by statutory/regulatory bodies other than UGC (AICTE, NCTE, MCI, DCI, PCI, RCI etc.)

Under Section/ clause	Recognition/Approval details Institution/Department Programme	Day, Month and Year (dd-mm-yyyy)	Validity	Remarks
i.	N.A.	N.A.	N.A.	-
ii.	N.A.	N.A.	N.A.	-
iii.	N.A.	N.A.	N.A.	-
iv.	N.A.	N.A.	N.A.	-

8.	Does	the	affiliating	university	Act	provide	for	conferment	of	autonomy	(as
	recog	nized	l by the UG	C), on its af	ffiliat	ed college	es?				

Yes	\checkmark	No	

If yes, has the College applied for availing the autonomous status?

Yes	No	✓

- **9.** Is the college recognized:
 - a. by UGC as a College with Potential for Excellence (CPE)?

Yes	No	✓	

b.	for its	performance	by an	y other	governmental	l agency?
		1	•	•	0	0

Yes No

10. Location of the campus and area in sq.mts:

Location	Rural
Campus area in sq. mts.	76,890
Built up area in sq. mts.	8170

Facilities available on the campus (Tick the available facility and provide numbers or other details at appropriate places) or in case the institute has an agreement with other agencies in using any of the listed facilities provide information on the facilities covered under the agreement.

Auditorium/seminar complex with infrastructural facilities

Sports facilities:

Playground	✓
Swimming pool	-
Gymnasium	✓

Hostel

* Boys' hostel:

	i. Number of hostels	Nil
*	ii. Number of inmates	-
*	iii. Facilities	-

* Girls' hostel:

i. Number of hostels	2
ii. Number of inmates	117
iii. Facilities	55 rooms, 2 dormitories, 3 dining halls, recreational facilities, computer and internet facilities, first aid facilities, library, water purifiers, power back up facility.

* Working women's hostel:

i. Number of inmates	Nil
ii. Facilities	Nil

- Residential facilities for teaching and non-teaching staff (give numbers available cadre wise)
- Cafeteria The college has a canteen that caters to the needs of both the students and the staff by providing food and refreshments at an affordable and nominal rate.
- Health centre First aid, Inpatient, Outpatient, Emergency care facility, Ambulance......
 - A Sick room with one bed and first aid facilities is attached to the Physical Education Department
 - A registered medical practitioner's clinic functions at a distance of 500 metres from the college during 9.00 am to 8.30 pm. This is accessible to staff and students during working hours.
 - A sick Room with a care-taker is available for girl students.

Health centre staff:

Qualified doctor	Full Time	Nil	Part Time	Nil
Qualified nurse	Full Time	Nil	Part Time	Nil

Facilities like banking, post office, book shops –

A book stall is functioning in the college campus.

Transport facilities to cater to the needs of students and staff –

Nil

Animal House – Nil

Biogas plant at the canteen | Biological waste disposal -

Generator or other facility for management/regulation of electricity and voltage

Solid waste management facility



Waste water management

Water harvesting



12. Details of programmes offered by the college (Give data for current academic year) (2015-16)

Program me Level	Name of the Programme/Course	Dura tion	Entry Qualification	Medium of Instruction	Sanctioned/App roved Student Strength	No: of students admitted
	B.A. Malayalam			Malayalam	40	55
	B.A. English				40	54
	B.A. Economics		A Pass in		50	50
	B.Sc. Mathematics		Higher		40	38
	B.Sc. Physics	3	Secondary Examination		32	38
Under	B.Sc. Chemistry	years	of the state or		32	31
Graduate	B.Sc. Botany	/6 an Examination	English	32	36	
B.Sc. Zoology sters	sters	the University as equivalent thereto		32	38	
	B.Sc. Botany & as			24	28	
	B.Com. (Finance)				50	54
	B.Com. (Computer Applications)		40	43		
	M.A. English	2	Graduation in any programme		15	19
Post Graduate	M.Sc. Physics	years /4		English	10	13
Graduate	M.Sc. Analytical Seme Sters M.Sc. Botany		, •		10	10
		J		12	12	
Ph.D.	Ph.D. in Physics	5 years	UGC JRF/NET or pass in Ph.D.	English	16	8

	Ph.D. in Chemistry		entrance exam conducted by the registering University		24	16
	Add-on course on Web Designing and Office Automation	1 year		English		
Certifica te Courses	Add-on Course on Polymer nano composites	1 year		_		
	Certificate Course in Computerized Accounting	4 mont hs		English		
UG Diploma	Diploma in Web Designing and Office Automation	2 years		English		

13. Does the college offer self-financed Programmes?

Yes	No	✓
If ves. how many	?	

14. New programmes introduced in the college during the last five years if any?

Yes	✓	No	Number	2

List the departments: (respond if applicable only and do not list facilities like Library, Physical Education as departments, unless they are also offering academic degree awarding programmes. Similarly, do not list the departments



offering common compulsory subjects for all the programmes like English, regional languages etc.)

Faculty	Departments	UG	PG	Research
	Mathematics	1	-	-
	Physics	1	1	1
Science	Chemistry	1	1	1
	Botany & Biotechnology	2	1	-
	Zoology	1	-	-
	English	1	1	-
Arts	Malayalam	1	-	-
	Economics	1	-	-
Commerce	Commerce	2	-	-

16. Number of Programmes offered under (Programme means a degree course like BA, BSc, MA, M.Com...)

Annual System	-
Semester System	15
Trimester System	-

17. Number of Programmes with

Choice Based Credit System	11
Inter/Multidisciplinary Approach	0
Semester System (PG Programmes)	4

18.	Does the	college of	fer UG	and/or P	G prog	rammes in	Teacher	Education ?)
10.	Does me	COHCEC OF		and/or r	O PIUE		I Cachel	Laucanon.	,

Yes No

19. Does the college offer UG or PG programme in Physical Education?

Yes No

20. Number of teaching and non-teaching positions in the Institution.

	Teachin	ng Fa	culty				Non		Tech	nical
Positions	Profess	or	Associa Profess			Assistant Professor		teaching staff		
	M	F	M	F	M	F	M	F	M	F
Sanctioned by the UGC/University/State Government	-	-	20		44		2	5	3	}
Recruited	-	-	13	7	14	23	14	6	2	1
Yet to recruit	-	-	-		7		-	5	-	
Sanctioned by the Management/	-	_								
society or other authorized bodies										
Recruited	-	-								
Yet to recruit	-	-								

21. Qualifications of the teaching staff:

Highest qualification	Pro	ofessor		sociate ofessor		sistant ofessor	Total
_	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.			9	3	7	6	25
M.Phil.			4	4	2	2	12
PG			0	0	5	15	20
Temporary teacher	rs						
Ph.D.						1	1
M.Phil.						4	4
PG					2	11	13
Part-time teachers	S						
Ph.D.							
M.Phil.							
PG							

- 22. Number of Visiting Faculty /Guest Faculty engaged with the College: Nil
- 23. Furnish the number of the students admitted to the college during the last four academic years.

	Year 1 (2011-12)		Year 2 (2012-13)		Year 3 (2013-14)		Year 4 (2014-15)	
Categories	Male	Female	Male	Female	Male	Female	Male	Female
SC/ST	65	149	62	151	64	146	65	162
OBC	19	48	19	42	20	49	27	63
General	140	600	205	589	250	625	245	579
Others	72	28	27	65	23	58	29	73

24. Details on students enrollment in the college during the current academic year:

Type of students	UG	PG	M. Phil.	Ph.D.	Total
Students from the same state where the college is located	450	54	-	-	504
Students from other states of India	15	-	-	-	15
NRI students	-	-	-	-	-
Foreign students	-	-	-	-	-
Total	465	54			519

25. Dropout rate in UG and PG (average of the last two batches)

UG 5% PG 0%

26. Unit Cost of Education

(Unit cost = total annual recurring expenditure (actual) divided by total number of students enrolled)

 $(a) \ including \ the \ salary \ component$

Rs.54,282.31

(b) excluding the salary component

Rs. 5449.00

27. Does the college offer any programme/s in distance education mode (DEP)?

Yes No

28. Provide Teacher-student ratio for each of the programme/course offered

Sl. No.	Programme/Course	Teacher- student ratio
1	BA English	15 : 1
2	BA Malayalam	20:1
3	BA Economics	28:1
4	B.Sc. Mathematics	30:1
5	B.Sc. Physics	12:1
6	B.Sc. Chemistry	15 : 1
7	B.Sc. Botany	32:1
8	B.Sc. Zoology	9:1
9	B.Sc. Botany & Biotechnology	14:1
10	B. Com (Finance)	16:1
11	B. Com (Computer Applications)	13:1
12	M.Sc. Physics	4:1
13	M.Sc. Analytical Chemistry	4:1
14	M.Sc. Botany	4:1
15	M.A. English	3:1

29. Is the college applying fo

Accreditation: Cycle 1	Cycle 2	Cycle 3	Cycle 4
Accreditation. Cycle 1	Cycle 2	Cycle 3	Cycle 4
Ro-Accocoment.			

30. **Date of accreditation*** (applicable for Cycle 2, Cycle 3, Cycle 4 and re-assessment only)

Cycle 1: **2005** Accreditation Outcome/Result **B++**

Cycle 2: <u>27/032010</u> Accreditation Outcome/Result <u>B (CGPA-2.81)</u>

- * Kindly enclose copy of accreditation certificate(s) and peer team report(s) as an annexure.
- 31. Number of working days during the last academic year.

180

32. Number of teaching days during the last academic year

(Teaching days means days on which lectures were engaged excluding the examination days)

180

33. Details regarding submission of Annual Quality Assurance Reports (AQAR) to NAAC.

- i. AQAR 2014-15 (16/11/2015)
- ii. AQAR 2013-14 (09/11/2015)
- iii. AQAR 2012-13 (10/12/2013)
- iv. AQAR 2011-12 (30/09/2012)
- v. AQAR 2010-11 (30/10/2011)

E. CRITERION-WISE ANALYTICAL REPORT

CRITERION I: CURRICULAR ASPECTS

1.1 Curriculum Planning and Implementation

1.1.1 State the vision, mission and objectives of the institution, and describe how these are communicated to the students, teachers, staff and other stakeholders.

Vision: To be a centre of excellence and a catalyst in facilitating holistic development of youth with international standards, edified with the sanctity of truth, equipped to serve, grounded on Christian ideals.

Mission: To nurture the enquiring mind to be liberated by truth, empowered by knowledge, committed to service and communal harmony, championing the cause of women and the marginalized and to create a sustainable environment.

Objectives:

J	To cultivate a creative learning environment
J	To apply innovative and student centred pedagogy
J	To promote advanced alliance with academic institutions
J	To update and create new knowledge through research
J	To aid students through mentoring
J	To address the concerns of the marginalized
J	To champion the cause of women
J	To strengthen stake holder relationships
J	To sustain an eco-friendly campus
J	To create a congenial atmosphere for secularism to flourish
Th	e vision, mission and objectives of the College are communicated to students,
tea	chers and other stakeholders through the following means:
J	College website <u>www.bishopmooreCollege.org</u>

- College Handbook and Calendar, Newsletter and the College Magazine which are distributed to all stakeholders
- The official publication of the CSI Madhya Kerala Diocese 'Jnana Nikshepam'
- Displayed prominently at strategic locations in the College campus
- The induction programme for the first year students
- General staff meetings discuss the role of teachers in fulfilling the vision, mission and objectives of the College
- These are communicated to the parents in PTA meetings

1.1.2 How does the institution develop and deploy action plans for effective implementation of the curriculum? Give details of the process and substantiate through specific examples.

The University develops the curriculum and also the action plans for its effective implementation of the curriculum. As the first stage for deployment of the action plan, the Principal of the College convenes the College Level Monitoring Committee (CLMC) comprising the Heads of all the Departments and the elected members of the Council. The Committee discusses the ways and means to effectively implement the Curriculum, keeping in mind the exam schedule, the schedule for co-curricular activities, in accordance with the rules and regulations stipulated by the University.

In the next stage, the Heads of all Departments meet their respective members in Department Level Monitoring Committee (DLMC) and action plan for the semester is charted out. Course Coordinators are selected and entrusted with the task of overseeing the proper implementation of the curriculum by setting a semester plan, wherein the syllabus is distributed evenly within a semester.

For example: It was suggested in a CLMC meeting in 2013-14 that the curriculum prescribed by the University should be supplemented by innovative teaching methods and conducting seminars, invited lectures, workshops, exhibitions and quiz programmes. The Departments have implemented this and since then, a total of 13

seminars, 28 invited lectures, 11 workshops, several quiz programmes and exhibitions have been organised.

1.1.3 What type of support (procedural and practical) do the teachers receive (from the University and / or institution) for effectively translating the curriculum and improving teaching practices?

- The University publishes an Academic Calendar for effectively translating the curriculum.
- The teachers are provided with the syllabus, which contains the modules to be covered in each course and the books to be referred.
- The University conducts orientation programmes, refresher courses, workshops and training programmes for teachers.
- The College arranges invited lectures and orientation programmes for improving teaching practices.
- The Academic Audit is conducted annually, in which the Manager and external experts give suggestions for improvement.
- The IQAC conducted a NAAC sponsored National Seminar on 'Emerging Dimensions of Quality in Higher Education' in which Shri. T. P. Srinivasan, Former Ambassador and Chairman of the Kerala State Higher Education Council, delivered the Keynote address. NAAC Deputy Director Dr. M. S. Shyamasundar addressed the participants in which he stressed on the emerging quality parameters in the field of Higher education. Various papers were presented to improve the teaching practices.
- Details of participation of faculty in Curriculum Revision and Semesterisation programmes

Year	No. of faculty participated	Organised by
2010-11	12	University of Kerala
2011-12	02	University of Kerala
2012-13	00	University of Kerala



2013-14	00	University of Kerala
2014-15	01	University of Kerala

Name of faculty	Programme	Date	Venue
Ms. Nirmala Kumari	Orientation programme in	26-27	ASC, University of
	semesterisation in Mathematics	July, 2010	Kerala
Dr. Susamma Jacob	Orientation programme in	26-27	ASC, University of
	semesterisation in Mathematics	July, 2010	Kerala
Ms. Simili Abraham	Orientation programme in	26-27	ASC, University of
	semesterisation in Mathematics	July, 2010	Kerala
Ms. Reena Koshy	Orientation programme in	2-3 Sep,	ASC, University of
	semesterisation in Botany	2010	Kerala
Mr. Dinesh Raj R	Orientation programme in	2-3 Sep,	ASC, University of
	semesterisation in Botany	2010	Kerala
Ms. Anu Mathews	Orientation programme in	2-3 Sep,	ASC, University of
	semesterisation in History	2010	Kerala
Maj. Samson Paul	Orientation programme in	26-27	ASC, University of
James	semesterisation in Commerce	July, 2010	Kerala
Dr. Sajeeve V. P.	Orientation programme in	26-27	ASC, University of
	semesterisation in Commerce	July, 2010	Kerala
Dr. Leelamma George	Orientation programme in	26-27	ASC, University of
	semesterisation in Malayalam	July, 2010	Kerala
Mr. R. Harichandran	Orientation programme in	26-27	ASC, University of
Achari	semesterisation in Malayalam	July, 2010	Kerala
Mr. Jacob Chandy	Orientation programme in	8-9 Sep,	ASC, University of
	semesterisation in Zoology	2010	Kerala
Mr. Vijo Thomas	Orientation programme in	8-9 Sep,	ASC, University of
Kurien	semesterisation in Zoology	2010	Kerala
Mrs. Prabha Alice	One day workshop on syllabus	10 Dec,	PG Board of studies,
Varkey	revision	2012	University of Kerala
Dr. Anne Angeline	One day workshop on syllabus	10 Dec,	PG Board of studies,
Abraham	revision	2012	University of Kerala
Dr. Nair Anup Chandrashekharan	One day workshop on syllabus revision	16 Nov 2015	University of Kerala

1.1.4 Specify the initiatives taken up or contribution made by the institution for effective curriculum delivery and transaction on the Curriculum provided by the affiliating University or other statutory agency.

The College strives to provide a perfect academic ambience for curriculum delivery and transaction of the curriculum.

- Provision of good infrastructural facilities like library, projector enabled classrooms, laboratories and internet connectivity for the effective curriculum transaction
- Recruitment of quality teachers
- The College arranges programmes for the teachers on the practical use of technology in the process of teaching; especially IT enabled teaching.
- Maintaining good student teacher relationship
- Conducts orientation on the Curriculum delivery for all students and parents on the first day of the Academic year. The orientation is a power point presentation which includes the number of exams a student has to write/assignments/extension work/project work that has to be completed within the stipulated time.
- Assigning topics of contemporary relevance for assignments and seminars.
- Organising a number of seminars and conferences every year on issues and themes related to the curriculum and at the same time having contemporary relevance and importance. Besides their participation, students play an active role in the organisation and conduct of these seminars.
- All the Departments undertake field visits and study tours supplementing the curriculum.

1.1.5 How does the institution network and interact with beneficiaries such as industry, research bodies and University in effective operationalisation of the curriculum?

All the programmes offered by the institution are tailor made to the requirement of the industry. As part of the operationalisation of the curriculum, the Departments



interact with the industry and other beneficiaries through laboratory visits and study visits to research centres.

Date of the Visit	Industry/Researchbody/Institutions/ University	Purpose of the visit
19 Nov, 2010	Bharat Petroleum Corporation Ltd., Kochi	As part of ENCON Club Orientation Programme
2 -18 Dec, 2010	Wayanad Wild Life Sanctuary, Bandipur National Park, Muthumala Wild life Sanctuary	Study Tour (B Sc Botany and Biotechnology students)
8 Aug, 2011	Cochin University of Science and Technology (CUSAT), Kochi	Laboratory Visit (B Sc Physics Students)
6 Oct, 2012	Vikram Sarabhai Space Centre (VSSC), Thumba, Thiruvananthapuram	Space week (B Sc Physics Students)
28 Dec , 2012	District Co-operative Bank, Mavelikara	Project Work (BA Economics students)
4 Jan, 2013	Birla Planetorium, Hyderabad	Study Visit (B Sc Physics Degree students)
13 Jan, 2013	Sangrose Pharmaceuticals, Kochalumoodu	Industrial Visit (B Sc Chemistry students)
29 Jan, 2013	Central Products Dairy, Alappuzha	Factory Visit (B Sc Chemistry students)
31 Jan, 2013	Doddabetta Tea Factory	Industrial Visit (B Sc Chemistry students)
13 Mar, 2013	Kerala University Library, Palayam, Thiruvananthapuram	Project Reference (BA Economics students)
21 Dec, 2013	Rajiv Gandhi Centre for Biotechnology(RGCB), Thiruvananthapuram	Institution Visit (B Sc Botany and Biotechnology students)
18 Dec, 2013	Thazhakkara Grama Panchayath	Project Work (BA Economics students)
3 Jan, 2014	Kerala Minerals and Metals Limited (KMML), Chavara	Project Work (BA Economics students)
3-7 Feb, 2014	Kerala Forest Research Institute (KFRI) Sub centre, Nilambur Government Botanic Garden, Ooty	Study Tour (B Sc Botany and Biotechnology students)
21 May, 2014	Vikram Sarabhai Space Centre (VSSC), Thumba, Thiruvananthapuram	Rocket Launching (B Sc Physics Students)
28 May, 2014	Calicut University Herbarium and Botanic Garden, Indian Institute for Spice Research (IISR), Calicut, M S Swaminathan Research	Study Tour (B Sc Botany and Biotechnology students)

	Foundation (MSSRF), Wayanad	
25 I 2014	Vikram Sarabhai Space Centre (VSSC),	Laboratory Visit
25 Jun, 2014	Thumba, Thiruvananthapuram	(B Sc Chemistry students)
4 Aug, 2014	Kudankulam Nuclear Power Plant, Tamil Nadu	Study Visit (M Sc Physics Students)
Sep, 2014	Krishnapuram Palace, Kayamkulam	To study the Kerala Culture (BA Malayalam students)
24 Dec, 2014	Chettikulangara Panchayath	Project Work (BA Economics students)
29 Dec, 2014	Clappana Panchayath	Project Work (BA Economics students)
30 Dec, 2014	Veekesy, Wayanad	Industrial Visit (B Sc Chemistry students)
7 Jan, 2015	Thekkekara Grama Panchayath	Project Work (BA Economics students)
8 Jan, 2015	Kerala Minerals and Metals Limited (KMML), Chavara	Project Work (BA Economics students)
10 Jan, 2015	Kerala Fishermen's Welfare Fund Board, Ernakulam	Project Work (BA Economics students)
11 Jan, 2015	Indian Rare Earth Limited (IREL), Chavara	Project Work (BA Economics students)
16 Jan, 2015	Mavelikara Municipality	Project Work (BA Economics students)
18 Jan, 2015	Coir Industry, Alappuzha	Project Work (BA Economics students)
20 Jan, 2015	Doddabetta Tea Factory	Industrial Visit (B Sc Chemistry students)
24 Jan, 2015	Jawaharlal Nehru Tropical Botanic Garden and Research Institute (JNTBGRI), Palode, Thiruvananthapuram	Institution Visit (B Sc Botany and Biotechnology students)
13 Feb, 2015	Library, Dept. of Economics, Kariavattom	Project Reference (BA Economics students)
14 Mar, 2015	English and Foreign Language University (EFLU), Hyderabad	Library visit (MA English students)
15 Mar, 2015	Osmania University Centre for International Programmes (OUCIP), Hyderabad	Library visit (MA English students)
24- 28 Apr, 2015	University of Calicut	To attend SPEED Programme of KSCSTE, Kerala (Faculty members of Botany Department)
6-7 May, 2015	Raman Research Institute, Bangalore	Characterization of samples (Faculty members of Physics and Chemistry)



7-12 May, 2015	Kudankulam Nuclear Power Plant, Tamil Nadu	Project work (M.Sc. Physics Students)
9-15 May, 2015	Metereological Department of India,	Project work
7-13 May, 2013	Thiruvananthapuram	(M.Sc. Physics Students)
		Midyear annual meet of
3-4 July, 2015	Indian Institute of Science, Bangalore	Indian Academy
		(Faculty member of Physics)
22 – 26 Sep,	Wayanad Wild Life Sanctuary, Government	Study Tour
22 – 20 Sep, 2015	Botanic Garden, Ooty, Sims Park Conoor,	(B Sc Botany and
2013	Ooty, Tea Factory, Ooty	Biotechnology)
11 Oct, 2015	Art College and Massaure Thimses and house	Study Tour
11 Oct, 2013	Art Gallery and Museum, Thiruvananthapuram	(BA Malayalam students)

1.1.6 What are the contributions of the institution and / or its staff members to the development of the curriculum by the University? (Number of staff members / Departments represented on the Board of Studies, student feedback, teacher feedback, stakeholder feedback provided, specific suggestions etc.

The College has contributed immensely to the development of the curriculum by the University through its representation in the Board of Studies and other statutory Academic bodies. Three of our faculty are members of Board of Studies and one has been a special invitee to the Board of Studies in the Syllabus revision of the BA Economics Course. The members attending Board of Studies meeting obtain feedback from their respective Departments and present it in the Board of Studies. The detailed list of the faculty who are members of academic bodies is given below:

Name of Faculty	Board in which member	Department
Giggy P. Koshy	UG Board of Studies (2014-17)	English
Dr. Ranjith Mathew Abraham	UG Board of Studies (2014-17)	Economics
Dr. P. K. Varghese	UG Board of studies (2014-17) Special Invitee	Economics
V. I. Johnson	Faculty of Oriental Studies (2014-17)	Oriental Subjects
Dr. Prakash Williams	UG Board of Studies (2014-17)	Bio-technology
Dr. Santhi W. S.	Academic Council (2014-17)	University of Kerala
Dr. Sajan D.	Senate Member (2014-17)	University of Kerala



Dr. P. K.Varghese	UG Board of Studies (2011-14)	Economics
Dr. Saiful Islam	Faculty of Social Sciences (2011-14)	Social Sciences

1.1.7 Does the institution develop curriculum for any of the courses offered (other than those under the purview of the affiliating university) by it? If 'yes', give details on the process (Needs Assessment, design, development and planning) and the courses for which the curriculum has been developed.

Yes, the College has developed the curriculum for the following UGC Sponsored Add-on Courses:

Name of the Course	Curriculum
	Developed
Course in Polymer Nanocomposites	Yes
Diploma Course in Web Designing and Office Automation	Yes
Course in Journalism and Mass Communication	Yes
Course in Medical Lab Technology	Yes

The concerned faculty teamed with the experts in the field to prepare the curriculum customizing it to the needs of the students and the stated goals of the programme.

- 1.1.8 How does institution analyze / ensure that the stated objectives of curriculum are achieved in the course of implementation?
 - Healthy discussion in the classrooms
 - Analysis of results of Internal Examination and End Semester Examination
 - Interaction with PTA after the declaration of the result
 - Feedback received from students and parents
 - J Through mentor-mentee interaction
 - Monitoring the regularity of student attendance

1.2 Academic Flexibility

1.2.1 Specifying the goals and objectives give details of the certificate / diploma / skill development courses etc., offered by the institution.

The College offers a range of certificate courses sponsored by the UGC. The list is given below:

Name of the Course	Goals and Objectives	Agency	Period
Certificate Course in Computerized Accounting Tally (1 year)	To master office accounting procedures	University of Kerala	2015, 2012, 2011
Diploma in Computer Applications (6 months)	To impart basic knowledge in computer	University of Kerala	2015
Certificate Course in Web Designing and Office Automation (1 year)	To impart basic knowledge in web designing and office automation	UGC Career Oriented Course	2014-15
Diploma in Web Designing and office Automation (2 years)	To impart knowledge in web designing and office automation	UGC Career Oriented Course	2014-16
Advanced Diploma in Web Designing and Office Automation (3 years)	To impart advanced knowledge in web designing and office automation	UGC Career Oriented Course	2014-17
Course in Polymer Nano composites (1year)	To give an introduction to Nanocomposites	UGC Career Oriented Course	2014-15
ASAP TPS (21 days)	To identify and train soft skill trainers	Kerala State Higher Education Department	2013-14 – two batches 2014-15 – one batch 2015-16 -three batches
ASAP Skill Development Programme	To impart job oriented skills	Kerala State Higher Education Department	2014-15 2015-16
Course in Journalism and Mass Communication (3 years)	To develop a flair for writing and reporting	UGC Sponsored Add-on Course	2010-13
Certificate Course in Medical Laboratory Technology (3 years)	To develop the skill in medical lab techniques.	UGC Sponsored Add-on Course	2010-13

1.2.2 Does the institution offer programmes that facilitate twinning / dual degree? If 'yes', give details.

No

- 1.2.3 Give details on the various institutional provisions with reference to academic flexibility and how it has been helpful to students in terms of skills development, academic mobility, progression to higher studies and improved potential for employability. Issues may cover the following and beyond:
 - Range of Core/Elective options offered by the University and those opted by the College

Core Course	Elective Option		
3 Year B A Degree Programme			
Malayalam Language and Literature	 Sanskrit Kerala Culture 		
English Language and Literature	 History of English Literature Political Science 		
Economics	 Political Science History of Modern India 		
3 Year B Sc	Degree Programme		
Mathematics	 Physics Statistics 		
Physics	 Mathematics Chemistry 		
Chemistry	 Physics Mathematics 		
Botany	 Chemistry Zoology 		
Zoology	 Chemistry Botany 		
3 Year Career related B Sc Degree Programme			
Botany and Biotechnology (Vocational Core)	1. Bio chemistry		
B.Com Finance	 Taxation law and practice Computer Application 		



	3. Co-operation	
B.Com Computer Application	Computer Application	
Two year M A Degree Programme		
English English Language and Literature		
Two year M Sc Degree Programme		
Physics	Materials Science	
Chemistry	Analytical Chemistry	
Botany Biotechnology		
PhD Programme		
Physics	Interdisciplinary	
Chemistry	Interdisciplinary	

Choice Based Credit and Semester System and range of subject options

The College offers a range of subject options as open courses which a student can select from under the CBCSS. The subjects offered are given below

Sl No	Subject Options	Department under which offered
No.		022020
1	Keraleeya Kalakal	Malayalam Language and
		Literature
2	Communicative Applications in English	English Language and
		Literature
3	Human Resources Management	Economics
4	Business Mathematics	Mathematics
5	Astrophysics and Astronomy	Physics
6	Essentials of Chemistry	Chemistry
7	Horticulture	Botany
8	Public Health and Hygiene	Zoology
9	Fundamentals of Financial Accounting	Commerce
10	Health and fitness Education	Physical Education
11	Food and Dairy Biotechnology	Biotechnology

Courses offered in modular form:

All the UG and PG courses are offered in the modular form.

Credit transfer and accumulation facility:

On successful completion of each course (may vary from 30-38 courses) credits are transferred depending on the credits assigned for each course. The student is required to accumulate a minimum of 120 credits for successful completion of the BA/B Sc/B.Com Degree Programme.

Minimum Credits required for successful completion	No. of Credits	
William Credits required for successful completion	BA/B Sc	B Com
Language Courses	33	22
Foundation Courses	5	5
Core Courses including Dissertation	50-56	61
Complementary Course	22 -28	12
Open Courses/Elective Courses	4	20
Social Service/Extension Activity	1	1

Lateral and vertical mobility within and across programmes and courses

- Lateral mobility is offered through the complementary and open courses.
- Students doing a Degree programme are required to study two complementary courses in allied subjects offered by another Department. For example BSc Chemistry with Mathematics and Physics as complementary or BA Economics with History and Political Science as complementary etc.
- The open courses also facilitate lateral mobility across courses. For example a student of Economics can study a course offered by the Physics or Mathematics Department. Similarly a student of Physics Department can opt for a course in the Commerce or Economics Department.
- The elective course facilitates lateral mobility across courses. For example a student of Economics can do a course on Agricultural Economics or Mathematical Economics.
- Certificate and Add on courses facilitate lateral mobility across courses. For example, a student of Chemistry Department can opt for a course in Medical Laboratory Technology.



On securing the minimum attendance for a course, the student moves to the next semester. The College provides opportunity to pursue a programme upto the PhD level in Physics and Chemistry and upto PG in Botany and English.

Enrichment courses

Enrichment programmes are conducted for the holistic development of the students. The list of such programmes is given below:

Enrichment Programme	Session handled	Designation
Psychology of Learning	Dr. Justin Padamadan	Clinical Psychologist
Patheyam	Dr. George Samuel	Nuclear Scientist
Orientation for Ist Sem Students	Prof. M. K.Cheriyan	Former Principal, Bishop Moore College
The Joy of Ethical Living	Rev. Joseph Thomas	College Chaplain
Personality Development	Rev. Thomas Abraham	Vicar, Marthoma Church, Thazhakkara
The Blossoming of the Personality	Dr. George Behanan	Professional Counsellor
Orientation for 1 st semester students	Dr. Nelson P. Abraham	Associate Professor, St. Thomas College, Kozhencherry
Orientation for 1 st semester students	Prof. George M. Cherian	Former Faculty, Bishop Moore College
Orientation for 1 st semester students	Dr. Ruble raj	Principal, Marian College, Kuttikkanam
Prakruthi Jeevanam	Mr. Hilal H	Environmentalist
Wings to win	Mr. Siju Thomas	Wings to Win Changanachery
How to become Heroes	Mrs. Grace Lal	Professional Counsellor
Personality Development	Dr. Varghese Thomas	Professional Counsellor
Basic Tips for success in Life	Prof. P. J. Oommen	State President, YMCA
Orientation for Ist semester students	Dr. T. O. Paulose	Professional Counsellor
The Joy of Christian Living	Rev. Binu Philip	College Chaplain
How to Succeed in Life	Dr. Leelamma George	Former Principal , Bishop Moore College



Time Management	Prof. Chandraprasad Sreedhar	Institute of Management in Government, Thiruvananthapuram
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1.2.4 Does the institution offer self-financed programmes? If 'yes', list them and indicate how they differ from other programmes, with reference to admission, curriculum, fee structure, teacher qualification, salary etc.

No

1.2.5 Does the College provide additional skill oriented programmes, relevant to regional and global employment markets? If 'yes' provide details of such programme and the beneficiaries.

Yes

Name of the Programme	Details	Beneficiary
ASAP (Additional Skill Acquisition Programme) TPS (21 day training)	To impart soft skills, interview skills, communication skills required for the flourishing corporate world	Final year UG and PG students
ASAP Institution	To impart job oriented skills	SC/ST, Minorities are given free training and general candidates
Tally	To impart computer skills required to meet the increasing demand for data entry operators and computerised accounting	All students can join the course
Medical Lab Technology	To develop the skill in Medical Lab Techniques	Students from Science background
Journalism and Mass Communication	To develop skills required by journalists	Students from all courses
Web designing and Office Automation	To develop computer skills for office jobs	Students from all courses
Entry into Service	To develop analytical skills, mathematical skills and general knowledge	Students from all courses
Tailoring	To impart tailoring skills as a source of self employment	Women students of the College
Fish Culture	To impart the method of fish	Zoology students

	culture as a source of income	
Mushroom culture	To impart the method of mushroom culture as a source of income	Botany and Biotechnology students
Apiculture	To impart the method of apiculture as a source of income	Zoology students
Professional Diploma in Network Engineering with Laptop Chip Level Technology (Keltron Course)	To provide training on servicing of laptop, palmtop, wireless technology, networking, Wi-Fi connectivity	Those having SSLC and above qualification

1.2.6 Does the University provide for the flexibility of combining the conventional face-to- face and Distance Mode of Education for students to choose the courses / combination of their choice. If 'yes', how does the institution take advantage of such provision for the benefit of students?

No, the University offers no such provision.

1.3 Curriculum Enrichment

- 1.3.1 Describe the efforts made by the institution to supplement the University's Curriculum to ensure that the academic programmes and Institution's goals and objectives are integrated?
 - The College has always believed that its teachers are its most valuable asset, and without good teachers there cannot be good rendering of the University's Curriculum. The Management has recruited outstanding teachers to fulfill its goal of making the College a centre of excellence.
 - There are Associations in Departments to foster and supplement the curriculum. Invited talks are arranged by the Departments in relevant areas. Bishop M. M. John Memorial Lecture, Prof. P.U. Jacob Memorial Lecture, Rev. K. C. Mathew Endowment Lecture, Prof. Elizabeth Mathew Memorial Quiz Competition, Rev.

George Mathen Memorial Lecture, Prof. Johnson Memorial Quiz competition are organised every year.

- National Seminars, exhibitions, quiz competitions, and orientation programmes are arranged to supplement the University's curriculum.
- J Industrial visits, field trips and educational tours enrich the practical experience of the students.
-) Social responsibility of the students is inculcated through NSS by conducting social awareness programmes, social service camps, blood donation camps etc.
- Nationalistic feeling is kindled through the activities of the NCC.
- A full-fledged library with a rich collection of titles supplements the University curriculum.
- Various clubs such as the Debate Club, Performing Arts Club, Bhoomithrasena, Womens Study Unit, Environment Club, Literary Club, Nature Club and Science Club organise programmes to intellectually stimulate and tap the latent potentials of the students. Sports, games and cultural activities are organised which along with the academic activities facilitate the holistic development of youth.
- Morning Prayer, Chapel prayer, retreats and worship integrate the Christian ideal of sanctity and truth into the curriculum.

1.3.2 What are the efforts made by the institution to enrich and organise the curriculum to enhance the experiences of the students so as to cope with the needs of the dynamic employment market?

The details of the various additional skill oriented programmes provided by the College are provided in section 1.2.5.

In addition to this, mentoring system, Scholar Support Programme and Walk With a Scholar Programme, guide and groom the students to plan for their future.



1.3.3 Enumerate the efforts made by the institution to integrate the cross cutting issues such as Gender, Climate Change, Environmental Education, Human rights, ICT etc., into the curriculum?

J Gender:

- > Women's Writing is a part of the syllabi for BA English students.
- > There is a Women's Study Unit functioning in the College under the guidance of a lady faculty. It organises awareness programmes on 'women's health' and 'legal awareness' for the benefit of women students and encourages them to develop skills like painting, dress making, jewellery making etc. The stall 'Pennoram' arranged during the College exhibition in 2014 helped in the sale of these articles.
- > Tailoring and stitching classes are conducted for women.
- > There is a Women's Centre in the College which caters to the needs of the women students.
- > A training programme on "Human Rights of Women and Girl Child" in association with NHRC was organised on 22 March 2014.
- A talk on "Shree Suraksha" was delivered by Smt. Prameela Devi (Vanitha Commission Member) on 12th January 2016.

Climate Change:

- > The campus had a pulsating ecumenical celebration for Climate justice- a programme organised in connection with the Coppenhagen Summit.
- A three day International Conference was organised by the College on 'Climate Change and Food Security' from 3 -5 March 2011. Scientists, environmentalists, academicians and research scholars from different parts of India and abroad met and discussed the impact of climate change and food security. 48 research papers on Climate Change and Food Security were published.

2016

- Ozone day is celebrated every year by organising Inter-departmental power point presentation competition, Inter-collegiate PowerPoint presentation competition, talk on "Importance of Protecting the Ozone Layer". A documentary on the importance of protecting the Ozone layer, directed by final year Degree students, as well as a skit on the same, were shown in two schools in 2015.
- > The College has a Nature club, Environment Club and Bhoomitrasena to safeguard the interest of the nature lovers. The teachers in charge of these clubs make sure that regular programmes are conducted throughout the year and important days are observed.

Environmental Education:

Even though environmental education is a part of the curriculum, the College has always been in the forefront of environmental education. The Archbishops from Canada Most Rev. Dr. Collin Johnson and Rev. Dr. Philip Poli appreciated the rain water harvesting methods implemented in the campus during their visit. The Water Harvesting System, Rain Pits and the green campus are good models through which we exhibit the message of environment education. The Bhoomithrasena, Environment Club, NCC and NSS organise programmes in connection with important days associated with the environment.

Date	Programme	Organised by
5 June, 2014	World Environment Day Celebration	Department of Zoology.
18 November, 2014	Talk on "Conservation of Biodiversity with special reference to Western Ghats"	Department of Botany and Bio technology.
23 July, 2014	Talk on "Conservation of Mangrove Ecosystem"	Department of Zoology
18-19 November, 2014	Photo exhibition on "Floristic diversity of	Department of Botany and Biotechnology

	Western Ghats"	
1 September, 2014	Training workshop on Common Bird monitoring	Nature Club
24 October 2014.	Installation of Ornamental fish culture	Department of Zoology
23 October, 2014	Plastic free Mavelikara awareness campaign for school students	Department of Chemistry

> Environment audit was conducted in the College.

Human Rights

- A one day Training Programme on Human Rights of Women and Girl Child was organised in association with NHRC, New Delhi to orient the students on issues of Human Rights. The programme was inaugurated by the Honourable First Class Judicial Magistrate, A. Badhurudheen.
- A National Seminar on Human Rights Perspective on Development and Displacement' was organised on 22 February 2016.
- Legal Rights Awareness classes were organised by the Legal Literacy Club under the aegis of the NSS in association with the District Legal Services Authority.
- > The College strictly adheres to the rules and regulations of the University of Kerala, Government of Kerala, UGC and Central Government regarding prohibition of ragging in the campus.

J ICT:

- > The students are given free access to internet and computers in the computer centre.
- > Informatics is part of the curriculum for all programmes. All students receive practical and theoretical knowledge on information and communication technology through this course.

- We also have a B. Com course with Computer Application, which integrates ICT into the curriculum.
- > The teachers adopt suitable pedagogy methodologies which are complemented with powerpoint presentations, educational CDs, videos and softwares to enhance the experience of the teaching learning process.

1.3.4 What are the various value-added courses/enrichment programmes offered to ensure holistic development of students?

The list of Add-on courses are given in 1.2.1. The various enrichment programmes conducted in the College are given in 1.2.3.

Moral and ethical values

As the saying goes 'values are not taught, they are caught', the institution has been able to uphold the highest degree of moral and ethical values in its functioning. The transparency in admission, evaluation, teaching and the general functioning of the College uphold the highest degree of values. Specifically Christian values are imparted through the Chapel Service organised every Wednesday. Every week begins with the College prayer at 9.15 a.m. The normal work day in College commences with a short prayer at 9.20 a.m.

Employable and life skills

- The Career Guidance and Placement Cell of the College organises workshops and coaching classes to train and guide the students to realize their ambition and to equip them for various competitive examinations conducted by the Central and State Governments. It also ensures to give necessary and relevant information and technical assistance for placements.
- The Entrepreneurship Development Club imparts entrepreneurial skills in students through its various programmes. Entrepreneurial Development Motivation Campaign was organised in association with the MSME Thiruvalla, to motivate students to become entrepreneurs.



ASAP provides soft skills and communication skills required to make the students employable in the expanding employment market.

Better career options

Coaching is organised to equip the students to gain entry into Government and other services. The College has a vibrant Career Guidance and Placement Cell to expose the students for better career options in life. The PG Departments conduct coaching classes for UGC/CSIR-JRF/NET. The two NCC units in the College encourage the cadets to join the various defence forces of the nation.

Community orientation

- A Community Development programme was organised to combat the increasing psychological pressures in daily life, the mindless violence, increasing suicides, incompatability among the peers and to create a better tomorrow by making people cope with their emotional burdens. Dr. George M. Cherian and Mr. George Behanan, specialists in the field of counselling were a part of this programme.
- Through the skit "Your Attention Please", the NSS unit of the College took the message of environment consciousness from the campus to various schools in the vicinity of Mavelikara.
- J Interest in agriculture was generated through tapioca cultivation in the campus.
- Cleanliness drive, AIDS awareness rally, blood donation camps, natural calamity relief activities, observing National days etc. instill community orientation in the students.
- Study materials were distributed to the CMS Lower Primary School as part of the NSS extension programme.
- Community living is fostered through residential camps of the NCC and NSS. It is mandatory for every NSS Volunteer to participate in atleast one residential camp of seven days.

1.3.5 Citing a few examples enumerate on the extent of use of the feedback from stakeholders in enriching the curriculum?

The curriculum is developed by the University, and the College asserts its influence in enriching the curriculum by conveying its feedback to the Board of Studies through its members. The teachers collect feedbacks from the students and ensure that the points proposed by the students to improve the teaching and learning process are appreciated in the right spirit. The feedback from the students and teachers reflected the need of ICT-based teaching and learning infrastructure to be implemented in the College. Accordingly, one classroom in each Department was provided with permanent LCD projector.

1.3.6 How does the institution monitor and evaluate the quality of its enrichment programmes?

Feedback forms are collected after each programme to evaluate the success of the programme. The DLMC help in the assessment of the quality of programmes offered by the respective Departments. Staff Council meetings involving the Principal, all Heads of the Departments and elected members also monitor the quality of enrichment programmes offered by the institution.

1.4 Feedback System

1.4.1 What are the contributions of the institution in the design and development of the curriculum prepared by the University?

The institution contributes to the design and development of the curriculum by the University through its teachers who are members of the Academic Council and Board of Studies who can directly take part in the design and development of the Curriculum. The list is given in 1.1.6. Our teachers have participated in the syllabus revision workshops organised by the University (list is furnished in 1.1.3). If there are members of the Board of studies/ Academic Council/ Syllabus revision Committees within the Department, they are informed of the suggestions during faculty meetings, otherwise the Heads of the Departments inform the Chairman,



Board of Studies about the requirements from the side of the faculty as well as the students.

1.4.2 Is there a formal mechanism to obtain feedback from students and stakeholders on Curriculum? If 'yes', how is it communicated to the University and made use internally for curriculum enrichment and introducing changes / new programmes?

Yes. Feedbacks from students are obtained through mentor-mentee meetings and Department-wise PTA meetings are held twice a year. The feedbacks thus collected from various stakeholders are brought for discussion at different levels in the institution – Department, Staff Council, IQAC, CLMC, general staff meetings and in certain cases before the Management. The proposed revisions are communicated to the University by the faculty who are members of the Board of Studies, Academic Council and Senate and also during syllabus revision workshops. Any modification/revision in the curriculum prescribed by the University is implemented in the College immediately.

1.4.3 How many new programmes/ Courses were introduced by the institution during the last four years? What was the rationale for introducing new courses / programmes?

The College introduced one PG, one UG programme and 7 certificate/diploma courses during the last four years.

Sl. No	New Course Introduced	Year of Introduction	Rationale
1.	B Com with Computer Applications (2014)	2014	Increased demand for B Com
2.	Certificate course in Web Designing and Computer Application	2014	Job oriented
3.	Diploma course in Web Designing and Computer Application	2014	Job oriented
4.	Advanced Diploma in Web Designing and Computer	2014	Job oriented



	Application		
5.	Certificate course in Nano composites	2014	Scope for research
6.	PG programme in MSc Botany	2013	Increased demand
7.	Certificate Course in Computerised Accounting	2013	Job oriented
8.	Certificate Course in Journalism and Mass Communication	2010	Job oriented
9.	Medical Laboratory Technology Course	2010	Job oriented

Keeping in tune with the vision and mission of the Institution new courses and programmes are introduced. As the College is situated in rural area and many of the students come from socially and economically backward communities, it is the only place to gain knowledge with a nominal fee structure. The increased demand for job oriented courses forced the College to start the B Com with Computer Application Programme. Moreover the Department of Commerce has excellent academic credentials and achievements to its credit. Since the Department of Botany and Biotechnology already has two UG programmes (B Sc Botany and B Sc Botany and Biotechnology) there has been an increased demand for PG course in Botany from within, further the Department has the potential to rise to a Research Department in the near future.



CRITERION II: TEACHING - LEARNING AND EVALUATION

2.1. Student Enrollment and Profile

2.1.1 How does the College ensure publicity and transparency in the admission process?

The College follows the schedule decided by the University of Kerala which is announced in the major newspapers and also in the University website. The admission is done as per Centralized Allotment Process (CAP). The University receives application for various online. Α separate website courses (www.admissions.keralauniversity.ac.in) is maintained by the University for this purpose, which contains links for online registration, brochure, details of Colleges under the University, courses offered etc. In addition to this, the College website www.bishopmoorecollege.org has a link to the University website. The web content gives timely exposure to admission rules and process.

Even though there is no need for publicity in the centralized admission process, the College has taken the following steps:

The details of courses offered, sanctioned strength, admission guidelines, Department profile and contact details are published in the College website
 The prospectus for admission is made available at College office
 Separate notice board is maintained in front of the main entrance for publishing all the instructions for admission
 An admission help desk functions throughout the admission process
 Gives news in the leading newspaper about the date and time of the interview.

20% percent of the seats in affiliated Colleges belonging to the minority communities can be filled by the respective College Management. The College follows all the instructions from the University for management quota admission. While giving admission under management quota the College gives importance to the merit, and subsequently prefers the students belonging to the marginalized sections and also the local candidates.



2.1.2 Explain in detail the criteria adopted and process of admission (Ex. (i) merit (ii) common admission test conducted by state agencies and national agencies (iii) combination of merit and entrance test or merit, entrance test and interview (iv) any other) to various programmes of the Institution.

For B.A., B. Sc and B Com, a 40% in the qualifying examination is the cut off at the entry level while the same for the PG programmes is 50%. For SC, ST, OBC and OEC students there is relaxation of 5% in the cut-off marks. The College follows University norms in the admission process. The major criteria for admission include:

J Admission Category

Sl. No	Category	Percentage of Seats
1	Open Merit	50
2	Scheduled Caste	15
3	Scheduled Tribe	5
4	Community Quota	10
5	Management Quota	20

J Eligibility for Admission

Eligibility criteria for the selection of students are governed by the rules prescribed by the Government from time to time. For the last four years a pass in Higher Secondary Examination/Vocational Higher Secondary Examination of the Government of Kerala or an Examination accepted by the Academic Council as equivalent thereto was the minimum criteria for getting an admission in the College.

Modes of Ranking

Students are ranked according to the eligibility criteria and index marks are calculated as follows:

Sl.	Name of the	Eligibility for Admission	Calculation of Index
No	Programme	-	Mark
1	B Sc Physics	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto with Physics as one of the subjects	Total marks secured for Higher Secondary + Marks secured for Physics
2	B Sc Chemistry	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto with Chemistry as one of the subjects	Total marks secured for Higher Secondary + Marks secured for Chemistry
3	B Sc Mathematics	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto with Mathematics as one of the subject	Total marks secured for Higher Secondary + Marks secured for Mathematics
4	B Sc Botany	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto with Biology as one of the subject	Total marks secured for Higher Secondary + Marks secured for Biology
5	B Sc Botany and Biotechnology	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto with as one of the subjects	Total marks in Higher Secondary + Marks secured for Biology
6	B Sc Zoology	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto with Biology as one of the subjects under science group	Total marks secured for Higher Secondary + Marks secured for Biology
7	B A English	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto.	Total marks for Higher Secondary/ equivalent (1200) + double the percentage of marks for General English
8	B A Malayalam	A Pass in Higher Secondary Examination of the State or an Examination accepted by the University as equivalent thereto.	Total marks in Higher Secondary + the Marks secured in the language under Part III + 50% of marks scored in Part II



			C11
			Second Language.
		A Pass in Higher Secondary	Total marks in Higher
9	B A Economics	Examination of the State or an	Secondary + Marks
	B 11 Leonomies	Examination accepted by the	scored for Economics
		University as equivalent thereto.	
		A Pass in Higher Secondary	Total marks in Higher
		Examination of the State or an	Secondary + Marks
		Examination accepted by the	scored for Accountancy
10	D C	University as equivalent thereto	+
10	B Com	provided candidates coming from	15% of marks scored
		Non-	for Business Studies
		Commerce group should have at	
		least 45% of the aggregate marks.	
		BA English as Core course securing	In ranking, a weightage
		not less than 1.8 CGPA(S) out of 4	of 5% will be added to
		or graduation in any programme in	candidates who have
		the faculties of Arts, Social Science,	studied English as Core
		Oriental Studies and Fine Arts	Course and this
11	M A English	securing not less than 2 CGPA out	weightage will be
		of 4 for English	added to their
		01 1 101 Ziigiioii	percentage of marks in
			English Language or
			CGPA(S)
12	M Sc Physics	BSc in the respective core subject	The candidates will be
13	M Sc Chemistry	with not less than 2.2 CGPA(S) out	ranked on the basis of
13	w se Chemistry	of 4	
14	M Sc Botany	01 4	the CGPA(S) plus the CGPA of the core.
			CGPA of the core.

2.1.3 Give the minimum and maximum percentage of marks for admission at entry level for each of the programmes offered by the College and provide a comparison with other Colleges of the affiliating University within the city/district.



U.G. (2015-2016)

	Marks obtained in the qualifying examination	
Course		
	Minimum	Maximum
B Sc Chemistry	60	95.58
B Sc Physics	58	97
B Sc Mathematics	57	97.7
B Sc Botany	65	89.6
B Sc Botany and	55	92
Biotechnology		
B Sc Zoology	60.9	94
B A English	70	92
B A Malayalam	50.6	82
B A Economics	51	85
B Com	56	99.9

P.G (2015-2016)

Programme	Marks Obtained in the qualifying examination Min Max	
M Sc Chemistry	65	92
M Sc Physics	85	95
M Sc Botany	64	87
M A English	61	94

2.1.4 Is there a mechanism in the institution to review the admission process and student profiles annually? If 'yes', what is the outcome of such an effort and how has it contributed to the improvement of the process?



- The Admission Committee oversees the admission process. It fine tunes the process at the College level and at the Department level.
- Management quota admission policy is formulated by the Management Committee.
- Periodical reporting and daily uploading of the College level admission is done promptly under the leadership of the Principal and the Faculty-in-charge of the admission.
- 2.1.5 Reflecting on the strategies adopted to increase/improve access for following categories of students, enumerate on how the admission policy of the institution and its student profiles demonstrate/reflect the National commitment to diversity and inclusion.

Student profile reflects the composition of the student community representing different socio-economic and learner background.

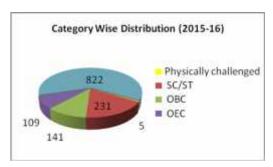
- SC/ST, OBC and OEC: As per the existing Government rules, 15% reservation is provided to SC candidates and 5% to ST. If eligible candidates of SC/ST are absent to fill the seats, the students from other eligible communities (OEC) and other backward communities (OBC) are considered after notifying the vacancy three times in newspapers. They also avail fee concession and many scholarships and stipends.
- Women: Gender equity in admission procedure is ensured. The recruitment and admission processes and policies are free from gender discrimination. Access and equity issues are considered while setting course entry requirements by the University. 60-70% of the available seats of the College are generally filled by women students.
- **Differently-abled**: The programmes and strategies adopted by the institution cater to the needs of adifferently-abled students. One seat for PG and one seat from each Degree course is reserved for the differently abled.

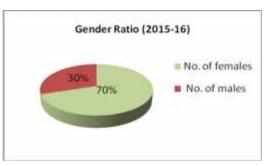


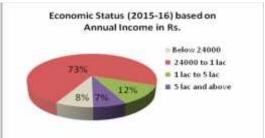
- Economically weaker sections: The College is situated in rural area and provides ample opportunities for the economically weaker students. The College has good road and rail proximity and the students get the benefit of fee concession from authorities on producing necessary documents.
- Minority community: 10% of the seats are reserved for Christian CSI students.
- Any other-sports Personnel: Two seats per programme. At the time of admission due importance is given to the students with excellent sports record.
- Cultural Quota: One seat per programme.

Student Profile:

Year	Male	Female	SC/ST	OBC	OEC	Minority	Others	Total
2015-16	393	915	231	141	109	125	822	1308
2014-15	366	877	227	90	102	128	696	1243
2013-14	357	878	210	69	81	126	749	1235
2012-13	313	847	213	61	92	115	679	1160
2011-12	296	825	214	67	100	107	633	1121
2010-11	302	828	213	61	111	105	640	1130









It may be observed that majority of the students belong to low and middle income group. 81% of them belong to families with annual income below ₹1,00,000 and only 19% of them are with annual income above ₹1,00,000.

2.1.6. Provide the following details for various programmes offered by institution during the last four years and comment on the trend i.e. reason for increase / decrease and actions initiated for improvement.

Programmes	Number of Applications				Number of Students Admitted				Demand Ratio			
	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16	2012-13	2013-14	2014-15	2015-16
B Sc Physics	1829	2294	2013	2505	31	37	33	38	59	62	61	66
B Sc Chemistry	2278	2040	2380	2434	34	30	34	31	67	68	70	79
B Sc Maths	1517	1521	1440	1472	41	39	36	38	37	39	40	39
B Sc Botany	1650	1537	1664	1981	33	29	32	36	50	53	52	55
B Sc Botany and Biotechnology	560	570	805	962	20	19	23	28	28	30	35	34
B Sc Zoology	1394	1400	1734	2126	34	28	34	38	41	50	51	56
B A English	1720	2256	2173	3240	43	48	41	54	40	47	53	60
B A Malayalam	805	1323	1026	1618	35	49	38	55	23	27	27	29
B A Economics	1640	2508	2256	2305	41	57	48	50	40	44	47	46
B Com	4154	4158	5280	6633	62	66	88	97	67	63	60	68

^{*}Details of PG Courses not available at University Website (Centralized Admission Process)

2.2 Catering to Student Diversity

2.2.1 How does the institution cater to the needs of differently-abled students and ensure adherence to government policies in this regard?

Based on the nature of disability, the institution helps the differently-abled students avail the benefits as per University/Government norms.

Classes are arranged after considering the special needs of the differently-abled students. No discrimination is allowed and students are sensitised to treat them with special care.

Special arrangements like scribes and extra time are provided for writing University examinations.

In the hostel, students with locomotive disabilities are allotted rooms on the ground floor. The College provides ramp, handrails and toilet for the differently-abled.

2.2.2 Does the institution assess the students' needs in terms of knowledge and skills before the commencement of the programme? If 'yes', give details on the process.

Keeping in mind the marks scored by the students in the qualifying exams, the variegated nature of the courses and the unique requirements of each, myriad assessment strategies are adopted:

- In Science subjects problem solving skills are assessed using simple tests.
- J In Language and Literature courses their linguistic and literary abilities are tested through written and oral presentations.
-) In Commerce and Economics their critical thinking is evaluated through the discussion of various case studies.
- 2.2.3 What are the strategies adopted by the institution to bridge the knowledge gap of the enrolled students (Bridge/Remedial/ Add-on/Enrichment Courses, etc.) to enable them to cope with the programme of their choice?
 - A formal orientation programme is conducted for students and parents wherein they are informed in detail about the CBCSS and other aspects of higher education.

- All Departments provide detailed information about the nature of subjects at Under Graduate level before they start the syllabus.
- An innovative 'Scholar Support Programme' is designed and implemented, to aid the slow learners, wherein the teachers put in extra hours with them.
- Meritorious students are enrolled into 'Walk With a Scholar' programmme to help them make better choices for their future.
- Remedial classes are conducted for slow learners to overcome their deficiencies and come at par with the rest of the class.
- Career oriented courses are offered as additional courses to the students.
- The College has implemented CBCSS in its UG programme which gives an opportunity to the students to choose appropriate open courses.
- Difficult theoretical concepts are explained with clarity using smart classrooms.

2.2.4 How does the College sensitize its staff and students on issues such as gender, inclusion, environment etc.?

Various programmes are organised by the College to make staff and students sensitive to the issues such as gender, environment, inclusion etc.

Gender Sensitization Programmes

- The College, being a co-educational institution, ensures equality among students irrespective of gender, caste and creed.
- 71% of the students of the College are women. Hence the institution gives prime importance to develop and empower the women students.
- A Women's Study Unit functions in the College under the guidance of a lady teacher to create awareness, instill values and develop the personality and leadership quality of women students.
- Classes on medical health, legal issues faced by women, income generating activity such as painting, terracotta making, tailoring etc. have been organised by the Women's Cell.

- A one day training programme on "Human Rights of Women and Girl Child" was organised in association with the NHRC, New Delhi to orient the students on issues of Human Rights.
- Every year, the College Union includes women representatives who are elected through College elections conducted in a democratic manner.
- There is a Women's Centre in the College which caters to the needs of women students.

Programmes aimed at Inclusion

- The College follows a policy of inclusion in all its activities including appointment of teaching and non-teaching staff, admission of students etc. This is evident in the adequate representation based on gender, religion, region and socio-economic backgrounds.
- The College infrastructure has been made friendly for differently-abled students.
- The Students Aid Fund is a scheme funded by the Staff which provides noon meal to needy students.
- An Equal Opportunity Cell functions in the College to ensure that students from underprivileged and vulnerable sections of the society are cared for.
- Financial support from the Government as well as fee concession for University exams are made available to SC, ST and OBC (non-creamy layer) students through the College office.
- The College is an ASAP institution. Students from SC, ST, OBC and BPL background are given free job oriented training to enhance their employability quotient.
- The commemoration and celebration of important days such as World Environment day, Independence day, Teachers' day, World Aids day, and cultural festivals such as Onam and Christmas generate a sense of inclusion among students.
- The following sensitisation programmes were aimed at achieving the objective of inclusion:

- ➤ "THANALEKIYAVARKU THANALAKAM" Programme which honoured the aged people in Mavelikara
- Donation to orphanages and old age homes in Mavelikara
- ➤ Distributed nearly 500 food packets to the poor and needy people in Ochira and Mavelikara in connection with World Food Day.
- Financial Assistance was given to Vishnu, S4 Malayalam student, who met with an accident.
- NSS volunteers opened a food court during Arts Day Celebration and collected 10000. The amount was handed over to an 18 year boy who was suffering from kidney failure and was undergoing dialysis at Kottayam Medical College.
- ➤ Blood Donation Camps and AIDS Awareness Programme
- Awareness programme (eg. anti drug campaign) by means of Road Shows

Eco – Sensitisation Programmes:

- Environmental awareness programmes are organised through Nature Club, Environment Club, ENCON Club, Bhoomithrasena, NSS, and Science Club to sensitise the students and staff members on issues like environmental pollution, ozone depletion, deforestation, global warming etc.
- All measures are adopted to maintain the campus green, clean and eco-friendly. The NSS unit actively participates in afforestation and greening programmes in the campus and community which also promotes their social responsibility.
- As part of sensitizing the students on environmental issues, the following programmes were organised by the College:
 - ➤ A three day International Conference on 'Climate Change and Food Security' from 3-5 March, 2011.
 - ➤ Published a book by an International publisher containing 48 Research papers related to Climate Change and Food Security.
 - Environmental Awareness Camps were conducted on 7 June 2012, 6 June 2013, 6 June 2014 and 6 June 2015.

- One day camps on Plastic Free Campus on 18 February 2012, 13 July 2013, 11 July 2014 and 13 July 2015.
- ➤ Under the banner of Harithaparisaram, a street play was scripted and composed by NSS volunteers of Bishop Moore College, which was staged at various locations in and around Mavelikara on 9 March, 2013.
- A garden is maintained by the Bhoomithrasena in the Quadrangle of the Department of Botany and Biotechnology.
- ➤ Inter-Departmental Environmental poster competition was conducted by Bhoomithrasena on 1 November 2013.
- Inter-Departmental Environmental Quiz competition was conducted by Bhoomithra Sena in November 2013 and February 2014.
- ➤ Bhoomithrasena members had an environmental study trip to Western Ghats, Wagamon Hills, and Pine forest, Parunthumpara hills of Idukki on 8 March, 2014 and to Ponthenpuzha Forest on 21 February 2015.
- Seminar on "Environment and Western Ghats Conservation" was organised by the Environment Club on 27 March, 2014.
- Photo exhibition on "Floristic diversity of Western Ghats" was organised on 18-19 November, 2014.
- Common Bird Monitoring Programme was organised by Nature Club on 1 September, 2014.
- ➤ Plastic free Mavelikara awareness class was organised for school students on 23 October 2014.
- ➤ Talk on "Conservation of Bio-diversity with special reference to Western Ghats" on 18 November, 2014.
- > Talk on "Conservation of Mangrove Ecosystem" was organised on 23 July 2014.
- ➤ Inter-Department Environmental Collage competition was conducted by Bhoomithrasena on 3 October, 2014.
- Inter-Department Poetry Writing competition on the topic, "Iniyum Marikkatha Bhoomi" was organised by Bhoomithrasena on 9 March, 2015.
- Seminar on Environmental Conservation was organised on 28 March, 2015.

- As part of Ozone Day Celebrations 2015, Inter-Department Power Point Presentation Competition, Inter-collegiate Power Point Presentation Competition, and a talk on "Importance of Protecting the Ozone Layer" were conducted. A documentary and a skit on the importance of protecting the Ozone layer, directed by final year Degree students were shown in two schools.
- The water harvesting system, rain pits and the green campus are models through which the College imparts environment sensitivity.
- Environment audit is conducted.

2.2.5 How does the institution identify and respond to special educational/learning needs of advanced learners?

- The advanced learners are given opportunity to join the Career Oriented Course offered by the College.
-) 'Walk With a Scholar' is envisaged to provide necessary orientation, guidance and motivation to the promising students to enrich and nourish their talents for higher studies and better employment opportunities.
- The College Computer Centre and Library provides unlimited access to the journal repository of N-LIST.
- Faculty Advisors help the students obtain sufficient reading materials from the general and department libraries.
- Advanced learners are motivated to apply for National level tests and Entrance exams, and special coaching is provided for the same.
- Advanced learners are given ample opportunities to participate in inter collegiate and inter department quiz competitions, seminars, workshops etc.
- They are encouraged to exhibit their skills through various clubs like Science Club, Arts Club, Debate Club, Nature Club, Women's Club, NCC and NSS which helps them to instill leadership qualities and social concern.

- The College Magazine and other student publications provide ample opportunity to improve the creative writing skills of students.
 They are given opportunity to visit research institutions to develop scientific temper.
 Supervising teachers identify specific area of research of students desirous for research and guide them to carry out their project/research work.
 PSC coaching classes are provided for interested students.
- 2.2.6 How does the institute collect, analyze and use the data and information on the academic performance (through the programme duration) of the students at risk of drop out (students from the disadvantaged sections of society, physically challenged, slow learners, economically weaker sections etc. who may discontinue their studies if some sort of support is not provided)?
 -) Students from the disadvantaged/physically challenged/economically weaker sections of the society are identified during admission.
 - The class warden maintains a record of attendance and monitors the performance of the students who are slow learners/ irregular/ miss tests and examinations, through CE and inform the concerned parents.
 - The teachers and the parents jointly work out a solution to their problems.

2.3 Teaching-learning process

- 2.3.1 How does the College plan and organise the teaching, learning and evaluation schedules? (Academic calendar, teaching plan, evaluation blue print etc.)
 - The Staff Council and the CLMC meet regularly to organize the teaching, learning and evaluation schedules.
 - The College has an academic calendar/the College handbook and calendar which has the details of the faculty, the course structure, the fee structure and a year planner.

		Contige
		Teaching plan is prepared at the beginning of the semester. Students are evaluated by conducting internal examinations; schedule is given in advance to the students. PTA meetings are held wherein the parents are made aware of the progress made by students.
2.3.2	Н	ow does IQAC contribute to improve teaching-learning process?
		IQAC monitors the academic programme through its members. The IQAC recommends measures for the improvement of teaching learning process in the College. It conducts seminars/workshops for teachers regarding effective teaching and learning. It develops documentary frameworks for the sustenance and improvement of quality in teaching-learning process. The designing and modification of work plan, activity report, student feedback forms are done by the IQAC. Prepares the Annual Quality Assurance Report (AQAR). Makes effort to improve the quality and creates learner-centric environment.
2.3.3	st	How is learning made more students centric? Give details on the support ructures and systems available for teachers to develop skills like interactive arning, collaborative learning and independent learning among the students? Induction/Orientation programmes are conducted at the beginning of the course (College/ Department level) to motivate students to create an interest in the subject NSS, NCC and extension activities help in interactive and participatory learning. Students are encouraged to use the library independently in order to enhance self-

J Student seminars and discussions as part of curriculum enable interaction in the

learning

teaching-learning process

J	Infrastructural support like smart classrooms, well-equipped laboratories, well-
	stocked library with ample reading space, computer lab with internet connectivity
	make learning more students friendly

Educational tours are organised for holistic understanding of the subject concerned

2.3.4 How does the institution nurture critical thinking, creativity and scientific temper among the students to transform them into life-long learners and innovators?

- Exhibitions, Seminars, Debates and Invited Lectures help students to explore new ideas and to listen to expert views which enable them to think critically.
- Cultural programmes organised throughout the year, not only ensure student participation but also develops their organisational skills
- College Arts Festival *Kalasarith* helps the students to express their creativity
- *Vidyasarith*, the annual College Magazine and manuscripts prepared by various Departments are platforms for students to express their creativity through writing.
- The 'Science Club' conducts science related activities like quiz, seminars, invited talks etc. which help the students cultivate a scientific temper
- 2.3.5 What are the technologies and facilities available and used by faculty for effective teaching? (Eg: Virtual laboratories, e-learning-resources from national Programme on Technology Enhanced Learning (NPTEL) and national Mission on Education through Inforantion and Communication Technology (NME-ICT), open educational resources, mobile education etc.

J Educational Softwares

- Projector enabled classrooms
- e-learning classrooms
- Library with rich collection of books
- N LIST INFLIBNET

2.3.6 How are the students and faculty exposed to advanced level of knowledge and skills (blended learning, expert lectures, seminars, workshops etc)?
Seminars (International and National) organised by Departments (List given in 3.7.4)
J Invited talks, symposiums, workshops organised by Departments (List given in 3.1.6)
UG and PG students are assigned seminars and project work
) Student-teacher interaction
2.3.7 Detail (process and the number of students benefitted) on the academic, personal
and psycho-social support and guidance services (professional
counseling/mentoring/academic advice) provided to students?
) Each class has a warden/mentor (Teacher-in-Charge), who looks into the well
being of students of the class. He/She provides general academic/personal support
to his/her wards
WWS (Walk with a Scholar)-supports academically brilliant students.
Scholar Support Programme offers remedial classes for students who need special attention to improve their learning abilities.
Spiritual Empowerment Committee-Helps the students to nurture their inner self.
Women's Study Unit caters to the needs of the women students
ASAP provides job oriented skills to the students of the College
2.3.8 Provide details of innovative teaching approaches/ methods adopted by the faculty
during the last four years? What are the efforts made by the institution to
encourage the faculty to adopt new and innovative approaches and the impact of
such innovative practices on student learning?
) Computer-assisted audio-visual learning
J Interactive learning (debates, seminars, quiz etc.)
Project based learning for PG and Final Semester UG students

- While teaching Drama, students are encouraged to perform in class.
- Films related to course of study are exhibited
- In language classes, the class is divided into groups and each group is encouraged to perform tasks assigned to them

Efforts by the institution

- J Infrastructure: The College has a Seminar Hall, Smart classrooms, Computer Labs with internet connectivity and a Media Room.
- Seminars conducted by IQAC help teachers to adopt new teaching methods.
- The College provides computers, laptop and LCD facility to each Department to encourage the faculty to adopt new methods.

Impact on student learning

Learning has become more student-centric.

2.3.9 How are library resources used to augment the teaching –learning process?

- The Library has adequate number of reference books, text books, journals, newspapers and magazines.
- N-LIST journals can be accessed from the library.
- The Library remains open from 8.30 a.m. to 4.30 p.m. on working days and on Saturdays.
- Previous year question papers of University examinations are made available.
- Reprographic facility is available in the library.
- Apart from the College General Library, there are Department Libraries which are used by the students and teachers of the respective Departments for teaching/learning.

2.3.10 Does the institution face any challenges in completing the curriculum within the planned time frame and calendar? If 'yes', elaborate on the challenges encountered and the institutional approaches to overcome these?

The College follows the University Calendar. The curriculum prescribed by the University for each semester is completed by the faculty members within the time

frame. Occasionally classes are cancelled due to heavy rain, hartals or local holidays but these are compensated by conducting extra classes.

2.3.11 How does the institute monitor and evaluate the quality of teaching learning?

Interaction of the Principal with HoDs and teachers
 Assessment by the IQAC
 Feedback obtained from teachers at the end of each semester
 Feedback from students
 Final examination results are discussed in CLMC meetings.
 Through Academic Audit

2.4 Teacher Quality

2.4.1 Provide the following details and elaborate on the strategies adopted by the College in planning and management (recruitment and retention) of its human resource (qualified and competent teachers) to meet the changing recruitments of the curriculum.

Highest qualification	Pro	ofessor	Associate Professor		Assistant Professor		Total
1	Male	Female	Male	Female	Male	Female	
Permanent teachers							
D.Sc./D.Litt.							
Ph.D.			9	3	7	6	25
M.Phil.			4	4	2	2	12
PG			0	0	5	15	20
Temporary teacher	rs						
Ph.D.						1	1
M.Phil.						4	4
PG					2	11	13
Part-time teacher	Part-time teachers						
Ph.D.							
M.Phil.			·				
PG							

- The regular faculty members are selected as per the guidelines of the UGC through notification in newspapers.
- The teachers are encouraged to complete their Orientation and Refresher Course as per the UGC regulations.
- Teachers are encouraged to attend conferences/seminars/workshops relevant to their subjects, and also to fine-tune their knowledge skills in tune with the requirements of the curriculum.
- They are also motivated to make presentations /publications in their area of research.
- Teachers are also encouraged to participate in curriculum revision workshops conducted by the University.
- 2.4.2 How does the institution cope with the growing demand /scarcity of qualified senior faculty to teach new programmes/modern areas (emerging areas) of study being introduced (Biotechnology, IT, Bioinformatics etc.)? Provide details on the efforts made by the institution in this direction and the outcome during the last three years.
 - We have regular teachers with specialization in Biotechnology and Biochemistry, and there is no dearth of trained hands in emerging areas.
 - Teachers are encouraged to attend short term courses on new and emerging areas of study, thus keeping abreast with the demands of the curriculum.
 - The library is updated on a regular basis to meet the challenges of the changing curriculum.
- 2.4.3 Providing details on staff development programmes during the last four years. Elaborate on the strategies adopted by the institution in enhancing the teacher quality.

The institution encourages teachers to participate in faculty development programmes to equip themselves for the present requirements of the teaching-learning process.

a. Nomination to Staff Development Programmes

Academic Staff Development Programmes	No. of faculty nominated
Refresher Courses	19
HRD Programmes	1
Orientation Programmes	14
Staff training conducted by the University	6
Staff training conducted by other institutions	26
Summer / winter schools, workshops etc.	28

b. Faculty Training programmes organised by the institution to empower and enable the use of various tools and technology for improved teaching-learning.

***** Teaching learning methods / approaches:

- A National Seminar on "Emerging Dimensions of Quality in Higher Education" sponsored by NAAC was organised by IQAC during 25-26 March 2013.
- The College regularly organises Seminars, Conferences, Talks and Lectures to empower the teachers and students in teaching-learning. (Details given in 3.1.6 and 3.7.4)
- 20 teachers of the College underwent a 'FEEL teacher', Learning and Development Intervention Programme conducted by the 'College for Leadership and Human Resource Development' (CLHRD) during 25 – 27 April 2013 at C. M. S. College, Kottayam.
- A one day seminar for teachers on 'Psychological Aspects of Teaching and Learning' delivered by noted Clinical Psychologist Dr. Justin Padamadan.
- A retreat was led by Dr. Ruble Raj (Principal, Marian College of Engineering, Kuttikkanam) for teachers on 6 August, 2015.
- A Leadership Training Programme was organised by the College at the Christian Education Centre, Charalkkunnu on 14-15 August 2010

***** Handling new curriculum:

- An Orientation programme on CBCSS was organised for teachers at the College level.
- Fifteen faculty members attended training programme on semesterisation and syllabus revision (Details given in 1.1.3)
- Workshops/Lectures on the following topics were organised to equip the teachers and students to effectively implement the curriculum:

Topic of Workshop/Lecture	Date
Spectroscopic Techniques and Applications	11 - 13 November 2015
Non-linear dynamics and chaos	20 – 21 January 2015
Literary Theory	10 – 11 January 2015
Starch Nanocrystal Reinforced Bionanocomposites	28 February 2014
Artificial Intelligence	10 – 11 January 2014
Nanophotonics	6 December 2012
Linux and LaTeX programming	19 – 21 July 2012
Apiculture	30 October 2011
An Introduction to Photonics	26 November 2010
Diversity of dragon flies	13thOctober 2010

Content / knowledge management:

- "Science Academies' Refresher Course in Quantum Mechanics" was hosted by the College during 5–18 May 2014.
- Dr. Sajeeve V. P. attended a one week financial education training programme organised by SEBI in September 2010.
- Dr.Reeja Jose attended a training workshop on "Bioinformatics" organised by the Pushpagiri Research Centre during 25-26 September 2015.

Selection, development and use of enrichment materials:

A Computer Awareness Programme for the lady teachers and administrative staff was organised on 8 September, 2010

Cross cutting issues:

An invited lecture on "Mendeley software - A possible solution for our messed up bibliography" was delivered by Ms. Rubie M. Sam, Research Scholar, Agro Paris Tech, France.

Audio Visual Aids / Multimedia:

- Training programmes for teachers on e-content preparation was organised by the College on:
 - ➤ M.S Word 26th July 2012.
 - ➤ M. S. Excel 24th October 2012.
 - ➤ M. S. Powerpoint 5th December 2012.

c. Percentage of faculty

- Invited as resource persons in Workshops / Seminars / Conferences organised by external professional agencies: 25 30%
- Participated in external Workshops / Seminars / Conferences recognized by national / international professional bodies: 80 90%
- Presented papers in Workshops / Seminars / Conferences conducted or recognized by professional agencies: 60 - 70%
- 2.4.4. What policies/systems are in place to recharge teachers? (eg: providing research grants, study leave, support for research and academic publications, teaching experience in other national institutions and specialized programmes industrial engagement etc.)
 - The College encourages the faculty to pursue higher studies and research.
 - J 29 Minor Research Projects and 05 Major Research Projects have been sanctioned to the faculty members during the last five years.
 - The Teachers with Minor and Major Research Projects have full freedom to spend research grants as per the directives of the research funding agency.
 - Study Leave Teachers are permitted to avail Faculty Development Programme (FDP) leading to M.Phil and Ph.D.

- The College consistently organizes International/ National Seminars/ Conferences/ Workshops.
- The teachers get duty leave for attending Orientation and Refresher Courses conducted by UGC ASC and also for participating/presenting papers in seminars/symposiums/conferences in state/national/international level. They can avail TA/DA from State/Central agencies.
- Laboratory facilities are available for faculty engaged in research.
- 2.4.5. Give the number of faculty who received award/recognition at the state, national and international level for excellence in teaching during the last four years. Enunciate how the institutional culture and environment contributed to such performance/achievement of the faculty.
 - Dr. Laly A. Pothan received the Vasudev Award for the best research work among projects funded by Kerala State Council for Science, Technology and Environment (KSCSTE) in 2010.
 - Dr. Laly A. Pothan was conferred FRSC 'Fellow of the Royal Society of Chemistry' in 2011. She also became an 'Emeritus Professor' in 2013
 - Dr. D. Sajan was awarded the DST Young Scientist Award for best researcher.
 - Dr. Dinesh Raj R is a life member of Indian Association for Angiosperm Taxonomy (IAAT).
 - Dr. P. K. Varghese is a life member of the Kerala Economic Association.

The excellent teaching-learning ambience, research culture, academic freedom, significantly contributed to the achievement of the faculty.

- 2.4.6. Has the institution introduced evaluation of teachers by the students and external Peers? If yes, how is the evaluation used for improving the quality of the teaching-learning process?
 - Yes, feedback is obtained from students. Based on the feedback provided, the teachers adopt strategies to improve the quality of teaching.

The University has introduced the Academic Performance Indicator (API) as a mandatory requirement for promotion, where the External Peer Evaluation of teachers has to be carried out.

2.5 Evaluation Process and Reforms

2.5.1 How does the institution ensure that the stakeholders of the institution especially students and faculty are aware of the evaluation processes?

- The evaluative process is transparent and the rules of CBCSS are clearly stated in the College Handbook and Calendar and website, and reiterated in the orientation sessions at the beginning of the academic year.
- Parents are also kept informed about the nature of the courses and the evaluative processes on the day of the orientation sessions and during the PTA meeting which are held twice a year.
- University declares timetable of the examinations well in advance. It is displayed on University website, as well as on the students' notice board in the College.

2.5.2 What are the major evaluation reforms of the University that the institution has adopted and what are the reforms initiated by the institution on its own?

Evaluation Reforms by the University:

Introduction of CBCSS

➤ The reforms under the CBCSS were introduced by the University in 2010 and these reforms including syllabus change are followed by the College.

Continuous Assessment and End Semester Assessment:

- ➤ The evaluation scheme of the University for UG Courses suggests that 20% marks should be set apart for Continuous Evaluation (CE) and the remaining 80% for End Semester Evaluation (ESE).
- ➤ For Post Graduate courses, 25% of the marks are set apart for Continuous Evaluation (CE) and 75% for End Semester Evaluation (ESE).

- ➤ The CE includes marks for assignment, attendance, seminar and test papers.
- In order to ensure transparency in the CE marks have to be verified and signed by the students. There is a mechanism to raise clarifications if any with the faculty concerned. If their grievance is not resolved by the respective faculty, they can approach the HoD and finally the Principal. We strictly follow all the University guidelines in this regard.

Dissertation Assessment:

The University has specified the components for assessment pattern of dissertation and the College follows the University stipulations.

) Online Examination Management by the University:

The University has a system that enables the downloading of the application forms and hall tickets, the uploading of CE marks and the publication of results on the website.

Inputs are given regularly to the University through the faculty members who are members of the University Senate, Board of Studies, and Academic Council etc. which in turn helps the authorities to reshape the system.

Evaluation Reforms by the Institution:

- **Evaluation by Parents**: PTA meetings are organised once in every semester to discuss the concerns and performance of each student.
- **Staff Council Meeting**: During the staff council meeting, the members discuss the general performance of the students and arrive at concrete measures for improvement.
- Feedback system: Feedback is obtained from the students at the completion of the course. There are focused questions on the teaching-learning and the evaluative process in the College. Each student gives written feedback and it provides the institution the necessary insights on the evaluative process.
- **Feedback from the Alumni**: Informal feedback and suggestions are received from the alumni when they visit the College for alumni meets.

Mentees Chronicle: This is a new multi-criteria evaluation tool cum record maintained by the mentors to assess the mentee. The mentees' chronicle records the personal details, marks obtained in various semesters, details of meetings and other achievements of the mentees.

2.5.3 How does the institution ensure effective implementation of the evaluation reforms of the University and those initiated by the institution on its own?

- Detailed information about the evaluation methods and the examination schedule is given in the Prospectus at the time of admission and also in the Academic Calendar at the beginning of a course.
- The Staff Council, CLMC and DLMC constituted by the College regulate and guide the implementation of the evaluation processes.
- The Staff Council and CLMC comprise the Principal, Vice Principal, Senior Faculty members and elected members. The DLMC, at the Department level, comprises Teachers In-charge and other faculty members of the Department
- Evaluation reforms for internal and external evaluation are discussed in the Staff Council, CLMC and DLMC meetings and an examination cell is devised to ensure its fair and effective implementation.

2.5.4 Provide details on the formative and summative assessment approaches adopted to measure student achievement. Cite a few examples which have positively impacted the system.

The following formative and summative evaluation approaches are adopted at curricular, co-curricular and extra-curricular front to measure student achievement:

Curricular front:

Formative evaluation approaches:

Internal assessment scheme has been introduced by the University to improve the learning skills of the students. Under this scheme students are subjected to appear in internal exams and assignments/seminars for which they are awarded marks that are added to the marks obtained in the ESE.

Coaching classes for the CSIR-UGC JRF/NET exam are given to PG students at the Department levels.
 Parents are encouraged to make periodic visits to the College and Department to have an assessment of the performance of their wards.
 PTA meetings also discuss overall performance of the students and make policy decisions.
 Summative evaluation approaches:

 Internal assessment is done based on the marks obtained for attendance, assignment/seminar and test paper; which constitutes the CE marks.
 University Exams (ESE) are conducted according to the University schedules.
 Students are encouraged to participate in State and National level exams.

Co-curricular front:

Inter Department debates, quiz, elocution and power point presentation competitions are organised by various Departments.

Extra-curricular front (Cultural level):

Formative evaluation approaches:

The College youth festival is conducted every year under the name "Kalasarith" where students take part in performing arts and literary events, which are part of the University Youth festival.

Summative evaluation approaches:

The best-performing students in the College level co-curricular and extra-curricular activities are selected and trained, and are sent for inter-collegiate competitions and University youth festivals. Students obtaining 'A' grade in the University Youth Festival are awarded grace marks for the semester examinations.

Extra-curricular front (Sports level):

Formative evaluation approaches - Sports trials are conducted. Students selected in sports trials are trained.

Summative evaluation approaches- Students trained appear in competitions at district, state and national levels. Students obtaining positions in the University Sports Meet are awarded grace marks for the semester examinations.

A few examples which have positively impacted the system:

- J Shaiju S. S. (M. Sc. Physics student) qualified the UGC-JRF during his third semester of M. Sc.
- Our students have topped the University over the years.
- The Bishop Moore College team won the first place and second place in the Kerala University Drama Fest organised in 2014 and 2013 respectively. Our students, Fabien Fernandez and Vinayak P., bagged the best actor awards in these years.
- 2.5.5 Detail on the significant improvements made in ensuring rigor and transparency in the internal assessment during the last four years and weightages assigned for the overall development of students (weightage for behavioral aspects, independent learning, communication skills etc.).
 - The Continuous Evaluation (CE) marks are prepared by the concerned faculty advisor of the subject which is signed by the students. These are handed over to the warden/teacher-in-charge, who consolidates the CE marks of all subjects of a student and gets them signed by the students. The consolidated CE marks are uploaded in the low level (faculty advisor level) of the University portal and forwards it to the middle level (HoD level). The HoD then verifies these marks and forwards them to the high-level (Principal level) where the Principal verifies the marks and forwards them to the University. The final print out of the marks are also signed by the students.
 - For UG students, the Internal Assessment is a Continuous Evaluation process (CE) which includes 5 marks for assignment, 5 marks for attendance and 10 marks for test paper. Test papers and assignment evaluation is shown to the students to ensure fair evaluation and transparency.
 - Punctuality in submission is a criterion for assessment of assignments.

- The students are expected to be in the class within 10 minutes of commencement of an hour to be marked present. The student attendance is taken each hour in the attendance book.
- To improve the communication skills of students, seminar topics are given to them and they present them either by chalk and talk method or using power point presentations.
- The Internal Assessment for PG students include 5 marks for assignment, 5 marks for attendance, 5 marks for seminar and 10 marks for test paper.

2.5.6 What are the graduate attributes specified by the College/ affiliating University? How does the College ensure the attainment of these by the students?

All students who secure 40% marks for internal and external exams for all courses, with compulsory participation in an extension activity are declared pass by the University. Those students who do not clear some of the papers are allowed to reappear and clear the backlogs. An average minimum attendance of more than 75% is mandatory for all students to appear in the examination.

The graduate attributes specified and inculcated by the College are classified into social, personal, professional and academic. The College is particular in organising programmes that can impart and enhance these attributes in a learner. These attributes make a student unique in thinking, perception, interaction and intervention.

The important graduate attributes specified by the College include:

1. Social attributes

Social responsibility, empathy, solidarity and humaneness, openness to diversity, ethical behaviour, eco-sensitivity

Programmes to ensure attainment of social attributes: Value education programme, NSS camps, Training for NCC Cadets, Commemoration of important days, Bhoomitra sena, Nature club, out-reach programmes in schools.

2. Personal Attributes

Self-awareness and self-esteem, stress management, life skills, secular thinking, punctuality, civic sense.



Programmes to ensure attainment of personal attributes: Value education programme, NSS camps, community activities, commemoration of important days, internal and external mentoring sessions as part of WWS, seminars and workshops, celebration of major festivals like Onam and Christmas.

3. Professional Attributes

ICT skills, gender sensitivity, interpersonal skills, adaptability, legal awareness, communication skills, problem solving skills, resource mobilization skills, networking skills.

Programmes to ensure attainment of professional attributes: ASAP, organizing group activities and teamwork, organizing arts and sports, community activities, placement training and career guidance, Add-on courses offered by various Departments, Training in Media Room.

4. Academic Attributes

Research aptitude and skill, critical thinking, scientific temper, lifelong learning, presentation skills, theoretical depth, observation skills, monitoring skills, evaluation skills, analytical skills, conceptualization skills.

Programmes to ensure attainment of academic attributes: Classroom teaching, curriculum/syllabus revision, consistent learning and consistent assessment, practical classes, power point presentation competitions, evaluation and exams, field trips and study tours, seminars and workshops.

2.5.7 What are the mechanisms for redressal of grievances with reference to evaluation both at the College and University level?

- There are three levels of grievance redressal available to the students with regard to internal assessment at the faculty advisor level, at the HoD level and finally at the Principal level. Any student can approach these platforms to lodge their grievances regarding discrepancy in evaluation.
- There is a Grievance Redressal Cell in the College which can be approached by the students/faculty for the redressal of grievances.

At the University level, all answer scripts of the undergraduate ESE are evaluated by an Additional Examiner and a Chief Examiner at Central Evaluation camps. Students can also apply for re-evaluation of answer scripts if they are not satisfied by the original evaluation. The answer scripts of post graduate exams are sent for first valuation and second valuation to two separate centres. Answer scripts with a difference of more than eight marks are sent for third valuation.

2.6 Student performance and Learning Outcomes

2.6.1 Does the College have clearly stated learning outcomes? If 'yes' give details on how the students and staff are made aware of these?

Yes, the University syllabus for each course clearly specifies the learning outcomes expected of a student. Every Department maintains a copy of the syllabus for each course, which is communicated to the students at the beginning of each course.

2.6.2. Enumerate on how the institution monitors and communicates the progress and performance of students through the duration of the course/programme? Provide an analysis of the student's results/achievements (Programme/course wise for last four years) and explain the differences if any and patterns of achievement across the programmes/courses offered.

The students as well as their parents are explained of the progress and performance through various methods - discussion in the classrooms, through notice board, through PTA meetings and direct intimation to parents. The results of the University examinations are communicated through the University website.

The table shows the results of UG programmes for the last four years.

Year of passing	2011-2012	2012-2013	2013-2014	2014-2015
Malayalam	68	72.22	77.42	66.67
English	75	82.5	92.68	76.92
Economics	61.13	62.5	69.39	60.00

B Com	59	76.47	90.38	88.33
Mathematics	60	79.31	81.4	87.5
Chemistry	76.49	70	76	72.22
Botany	70.96	59.26	86.67	90
Botany and	100	94.74	91.67	88.89
Biotechnology				
Zoology	65	85.71	90.32	81.25
Physics	75.86	71.43	87.5	65.63

The results of all courses are commendable as most of these results are above the University average. Many students have bagged University top positions during this period, some of them are, in 2011-12, (1st positions in Zoology, Mathematics and Commerce), in 2012-13, (2nd position in English, 5th position in Zoology, 3rd and 5th in Botany and Biotechnology and 2nd in Commerce), in 2013-14 (1st in Zoology) and in 2014-15 (5th position in Physics and 1st in Commerce).

The table shows the results of PG courses for the last four years.

Year of passing	2010-2011	2011-2012	2012-2013	2013-2014	2014-15
English	75	92.31	100	100	75
Chemistry	50	77.78	81.82	12.5	90
Physics	42.86	41.18	41.18	71.43	81.81
Botany	-	-	-	-	83.34

University ranks for PG courses during the last five years:

-) 1st rank in M.Sc. Botany in 2014-15
- $\int 1^{st}$ and 7^{th} ranks in M.A. English in 2012-13
- 2nd rank in M.Sc. Chemistry in 2011-12
- 3rd rank in M.Sc. Chemistry in 2010-11

2.6.3. How are the teaching, learning and assessment strategies of the institution structured to facilitate the achievement of the intended learning outcomes?

- Soon after the reopening of the College, a general staff meeting is held to discuss and finalise the strategic plan related to teaching and learning that are to be implemented to facilitate the achievements of the intended learning outcome.
- All the teachers prepare teaching plan as per the University calendar. The strategy includes assignments, classroom seminars, performance in the internal tests and internal exams. Learner performance is assessed on the basis of the above parameters and required steps including remedial coaching classes are given to achieve the intended learning outcome. Toppers in every subject (core, complementary and language) are awarded with cash prize.
- Expert lectures are arranged in each subject.
- Students are also given soft skill training, personality development classes and training in fostering their talents and leadership traits through various clubs and organisations.

2.6.4. What are the measures/initiatives taken up by the institution to enhance the social and economic relevance (student placements, entrepreneurship, innovation and research aptitude developed among students etc.) of the courses offered?

- The institution has taken up many initiatives to enhance social and economic relevance of the courses offered. The students are given orientation programmes, career counselling classes and group discussion sessions to make their study economically and socially relevant.
- The College has established Placement Cell which has helped many students in getting placements.
- The College has an Entrepreneurship Development Club to encourage start-ups.
- The study tours, group discussions, classes by experts on various topics, national and international seminars conducted in the College all enhances the social and economic relevance of the various courses offered. Students are given opportunity

to visit different research institutes, which help the students to develop a practical knowledge about the courses and also help them to develop research aptitude. Project work carried out at the end of all courses also help to develop research aptitude.

Programmes conducted by Departments ensure social commitment among students. For eg. In the International Year of Chemistry (2012-13), teachers and students of the Department of Chemistry organised a lecture series for school children.

2.6.5. How does the institution collect and analyse data on student performance and learning outcomes and use it for planning and overcoming barriers of learning?

Student performance and learning outcomes are analysed based on the results of internal and University examinations. The results are communicated to the parents through PTA meetings. The analysis of the exam results helps to plan for further course of action to improve academic standards of poor learners. Academically weak students are given extra care through extra coaching, remedial coaching, student support programme and issue of study materials.

2.6.6. How does the institution monitor and ensure the achievement of learning outcomes?

- Outcome of the learners is continually assessed through the various examination procedures like class tests, internal examinations, seminars, assignments and practical examinations.
- The students are also assessed through their performances in assignments, presentations and student projects.
- The learners are informed about their performance and coached if necessary to improve on aspects of weakness found in their performance.
- Various internal committees like discipline committee, student affairs committee, library committee, career guidance cell, women's study unit and counselling cell also play a major role in ensuring the outcome of learners.

- The general performance of students is continuously analysed and discussed in DLMC meetings headed by the HoD/ DLMC convener.
- 2.6.7 Does the institution and individual teachers use assessment/evaluation outcomes as an indicator for evaluating student performance, achievement of learning objectives and planning? If 'yes' provide details on the process and cite a few examples.

Yes.

- Assessment is a continuous process, and is much helpful in planning effective strategies for the benefit of all concerned.
- Evaluation of all sorts enables us to categorize the students into advanced and slow learners.
- The advanced learners are facilitated to gain more competencies and exposure through WWS programme and also by deputing them to programmes outside the campus like seminars, workshops, presentation competitions etc.
- The slow learners are supported through different mechanisms like SSP and Remedial Coaching.
- The mentoring system is effectively utilised for helping the slow learners to overcome their hurdles.
- 2.6.8 Any other relevant information regarding Teaching-Learning and Evaluation which the College would like to include.

The College proposes to start

- PG programmes in Zoology, Malayalam and Commerce
- Research centres in English, Botany and Biotechnology
- M.Phil in Physics



CRITERION III: RESEARCH, CONSULTANCY AND EXTENSION

3.1. Promotion of Research

3.1.1. Does the institution have recognised research centre/s of the affiliating University or any other agency/organisation?

The institution has two recognised research centres affiliated to the University of Kerala-Department of Physics and Department of Chemistry.

3.1.2. Does the Institution have a research committee to monitor and address the issues of research? If so, what is its composition? Mention a few recommendations made by the committee for implementation and their impact.

The institution has an active Research Committee to monitor and address the issues of research. The Committee holds meetings in order to discuss various plans to promote research. Major recommendations made by the committee are follows:

- Inform the teachers about the various projects and fellowships available and help them to apply for the same
- Encourage the Departments to conduct workshops, seminars and conferences from time to time
- Monitor the progress of the research projects functioning in various Departments
- Provide ample support for the smooth functioning of the projects
- Provide necessary help to the interested faculty members to apply for research grants from different sponsoring agencies
- Provide guidelines to the faculty members for applying for PhD and other Faculty Development programmes according to UGC norms
- Encourage Research Publications

Impact (last five years)

- Participation of faculty members of the College, as resource persons/delegates in seminars and conferences increased
 Three International conferences were organised
 10 National Conferences/Seminars were organised
 60% of the permanent faculty members of the College have received funding for Research projects (Major, Minor and student projects) from UGC, Kerala State Council for Science, Technology and Environment (KSCSTE), Council of Scientific
- 11% of the faculty members availed Faculty Development Programme (FDP) to acquire PhD (List is given in 3.1.9)

and Industrial Research (CSIR) and DST-SERB. (Lists of major and minor projects

3.1.3. What are the measures taken by the institution to facilitate smooth progress and implementation of research schemes/projects?

The following measures are taken to facilitate the smooth progress and implementation of research schemes/projects:

- **Autonomy to the Principal Investigator (PI)**: Full autonomy to the PIs and timely release of resources facilitate the implementation and smooth progress of research projects.
- Timely availability or release of resources: The Institution makes all necessary arrangements for timely release of resources for smooth progress and implementation of research projects.
- load, special leave etc. to teachers: Adequate infrastructure is provided by the institution for smooth progress and implementation of research projects. Time-off and reduced teaching load are not provided, since University norms does not permit it at present. The College Management grants permission to the faculty (by issuing No-Objection Certificate) to pursue higher studies without hampering the normal

are given in 3.1.5)



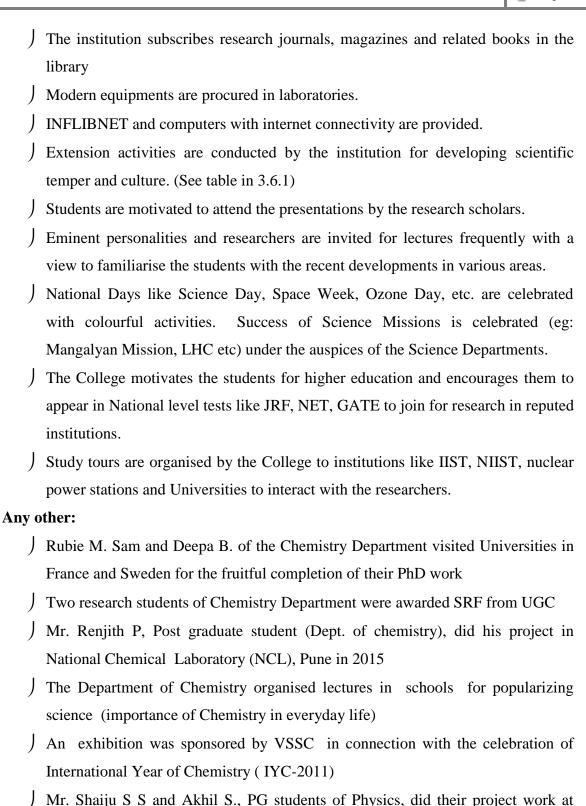
duties and classes. The teachers also get duty leave for participating/ presenting papers in seminars/symposiums/conferences at the State/National/International level.

- Support in terms of technology and information needs: The College has procured latest equipments and has provided computer and internet facilities for all Departments. Books and journals are purchased according to the needs of the faculty. Library facilities are updated and research journals subscribed. International/National conferences/seminars and Refresher courses for the benefit of researchers, students and faculty members are organised.
- Facilitate timely auditing and submission of utilization certificate to the funding authorities: The institution has a separate auditing section for the smooth running of the projects and it helps the Principal Investigator (PI) for the timely preparation and submission of the Utilization Certificate to the funding agency.
- **Any other:** The institution encourages and extends all the help possible to promote research activities among the students.

3.1.4. What are the efforts made by the institution in developing scientific temper and research culture and aptitude among students?

- The Science Departments encourage the students to participate actively in main stream research by availing student projects from KSCSTE, Thiruvananthapuram (List given in 3.2.3).
- Students are given opportunities to be part of Minor Research Projects run by the faculty members.
- The Departments organise conferences, seminars, workshops and lecture series which help the students to meet and interact with eminent scientists and personalities. This platform helps to familiarize the opportunities and challenges of research, especially at the inter/multidisciplinary level. (See table in 3.1.8)
- The students are encouraged and recommended to do Summer Projects in reputed institutions like Indian Institute of Sciences Bangalore, IIT, NIIST, NCL, CUSAT, Kudankulam Nuclear Power Plant etc.

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Kudankulam Nuclear Power plant, Tamil Nadu and Indian Meteorological

Department, Thiruvananthapuram respectively



3.1.5. Give details of the faculty involvement in active research (Guiding student research, leading Research Projects, engaged in individual/collaborative research activity etc.)

Most of the faculty members are involved in research, undertaking major and minor research projects from agencies like KSCSTE, UGC and DST.

Details	Number		
Research Guides	8		
Pursuing PhD	14		
	Ongoing - 3		
Major Research Projects	Completed - 3		
	Total - 6		
	Ongoing - 11		
Minor Research Projects	Completed – 18		
	Total - 29		

	DETAILS OF RESEARCH GUIDES (2010-2015)								
Sl. No.	Name of the Faculty	Department	Major areas of Research	No. of PhDs produced in last 5 years	No. of PhDs being guided				
1	Dr. Laly A. Pothan (Professor Emeritus)	Chemistry	Polymer composites	3	10				
2	Dr. K. Kurien Thomas (Retired from service in 2012)	Chemistry	Organic Synthesis	1	-				
3	Dr. Mathew Koshy (Retired from service in 2011)	Chemistry	Environmental Chemistry	3	-				
4	Dr. D. Sajan	Physics	Vibrational Spectroscopy,NLO, Computational Chemistry	1 submitted	10				
5	Dr. P. K. Varghese	Economics	Agricultural Economics and Plantation Economics	1	2				
6	Dr. Laly Jacob	Zoology	Eco-Physiology, Aquatic Biology and Fisheries	2	-				
7	Dr. Thomas Kuruvilla	Physics	Theoretical Physics,	-	-				



			Nonlinear Dynamics		
8	Dr. Sherely Annie Paul	Chemistry	Polymer Composites	-	-

DETAILS OF FACULTY DOING PhD (2012-2015)

Sl. No.	Name of the Faculty	Department	University Registered
1	Siji K. Mary	Chemistry	M. G. University, Kottayam
2	Rekha Rose Koshy	Chemistry	M. G. University, Kottayam
3	Deepa Thomas	Chemistry	University of Kerala, Thiruvananthapuram
4	Abha K.	Chemistry	University of Kerala, Thiruvananthapuram
5	Bessy Mary Philip	Chemistry	University of Kerala, Thiruvananthapuram
6	Jerin Susan John	Physics	University of Kerala, Thiruvananthapuram
8	Lynnette Joseph	Physics	M. G. University, Kottayam
7	Merin George	Physics	University of Kerala, Thiruvananthapuram
8	Giggy P. Koshy	English	M. G. University, Kottayam
9	Bhagyalakshmi Mohan	English	M. G. University, Kottayam
10	Anusha Das	English	University of Kerala, Thiruvananthapuram
11	ViduVijayan	English	University of Kerala, Thiruvananthapuram
12	Suma Alexander	English	University of Kerala, Thiruvananthapuram
13	Sajini Deena Mathew	Malayalam	University of Kerala, Thiruvananthapuram
14	Ashish P. Varughese	Commerce	M. G.University, Kottayam
15	Neethu Mary Philip	English	University of Kerala, Thiruvananthapuram

DETAILS OF FACULTY LEADING MAJOR RESEARCH PROJECTS (2010-2015)

(The list of projects is given in section 3.2.7)

Sl No.	Name of the Faculty	Department	No. of completed major projects	No. of ongoing major projects	
1	Dr. D. Sajan	Physics	-	3	
2	Dr. Sherely Annie Paul	Chemistry	1	-	
3	Dr. K. Kurien Thomas	Chemistry	1	-	
4	Dr. Laly Jacob	Zoology	1	-	

DETAILS OF FACULTY LEADING MINOR RESEARCH PROJECTS (2010-2015)

(The list of projects is given in section 3.2.7)

Sl No.	Name of the Faculty	Department	No. of completed minor projects	No. of ongoing minor projects
1	Dr. Reeja Jose	Zoology	-	1
2	Dr. Deepthi G.R.	Zoology	-	1
3	Linda E. Jacob	Chemistry	-	1
4	Siji K. Mary	Chemistry	-	1



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5	Rekha Rose Koshy	Chemistry	-	1
6	Divya S.	English	-	1
7	Premjith M. R.	English	-	1
8	Dr. Sajeeve V. P.	Commerce	-	1
9	Ashish Varughese	Commerce	-	1
10	Deepa Thomas	Chemistry	1	-
11	Abha K.	Chemistry	1	-
12	Merin George	Physics	1	-
13	Julie Thomas	English	-	1
14	Bhagyalakshmi Mohan	English	-	1
15	Anusha Das	English	1	
16	Dr. Asha Ramachandran	Botany	1	-
17	Jerin Susan John	Physics	1	-
18	Dr. Anne Angeline Abraham	English	1	-
19	Vidu Vijayan	English	1	-
20	Dr. D. Sajan	Physics	1	-
21	Lynnette Joseph	Physics	1	-
22	Jessy Anu Philip	Chemistry	1	-
23	Dr. Laly A. Pothan	Chemistry	1	-
24	Giggy P. Koshy	English	1	-
25	Dr. Nair Anup Chandrasekharan	English	1	-
26	Dr. Susamma Jacob	Mathematics	1	-
27	Dr. Harichandran Achari	Malayalam	1	-
28	Chandy N. George	Physics	1	-
29	George Mathew	Physics 1		-

3.1.6. Give details of workshops/ training programmes/ sensitization programmes conducted/organised by the institution with focus on capacity building in terms of research and imbibing research culture among the staff and students.

Seminars, workshops, conferences, invited talks, etc are organised by various Departments with focus on capacity building in terms of research and imbibing research culture among the staff and students.

Academic Year	No. of programmes					
Academic Tear	International	National	State	College level		
2015-16	0	4	9	6		
2014-15	0	3	11	5		
2013-14	1	3	13	1		



2012-13	1	4	10	0
2011-12	0	2	5	1
2010-11	1	0	8	3

	Academic Year: 2015-16						
Sl No.	Event and Date	Internati onal/Nat ional/Sta te	Торіс	Host Departme nt	Resource Person(s)		
1	Lecture Workshop 4-5 Mar. 2016	State	Statistical Mechanics	Physics	S.V. M. Sathanarayana (Pondicherry Central University) Joseph C Prabhakar (Loyola College, Chennai)		
2	Seminar 22-23 Feb. 2016	National	Human Rights Perspective on Development and Displacement	Economics, History and Political Science	Dr. J. Prahash (<i>University of Kerala</i>), Dr. S. P. Udhayakumar (<i>Convener, PMANE</i>), Dr. P. Sakthivel (<i>Annamalai University</i>)		
3	Workshop 16-17 Feb. 2016	National	Research Methodology and Data Analysis using SPSS	Economics	Dr. Manju S. Nair, Dr. A. Abdul Salim (University of Kerala, Thiruvananthapuram) Dr. V. Nagarajan Naidu (University College, Thiruvananthapuram)		
4	Invited Lecture 15 Feb. 2016	College Level	Higher Education Reforms in Kerala	Economics	Mr. T. P. Sreenivasan (Vice Chairman and Executive Head, Kerala State Higher Education Council)		
5	Invited Lecture 29 Jan. 2016	College Level	Materials for Renewable Energy	Chemistry	Dr. V. Manikantan Nair (Govt.Women's College, Thiruvananthapuram)		
6	Seminar 6-8 Jan. 2016	National	Experimental and Theoretical Approaches to Photonic Materials	Physics	Dr. Reji Philip (Raman Research Institute, Bangalore) Dr. Karunakaran Venugopal, Dr. Sinoy Thomas (CSIR-NIIST) Dr. M. K. Jayaraj(CUSAT), Dr. P.M. Aneesh (Central University Kasargod)		
7	Invited Talk 4 Jan. 2016	College Level	Graph Theory	Mathemati cs	Dr. Madhavan Nampoothiri (Govt. College, Nattakom)		
8	Seminar 28-29 Dec. 2015	National	Evolving Media in Post-Liberalisation India	English	Mr. Venkitesh Ramakrishnan (Senior Associate Editor, The Hindu/Frontline) Mr. Mohan Ramamoorthy (Asian College of Journalism, Chennai)		
9	Seminar 9 -11 Dec.	National	Malayala Vyakarana Padanam Vyathyastha	Malayalam	Dr. N. Sam (Rtd. Professor, University of Kerala,) Dr. A. N.		



	2015		Sameepanangal		Krishnan (Emeritus Fellow and Professor, Kerala Kalamandalam)
10	Lecture Workshop 11-13 Nov. 2015	State	Spectroscopic Techniques and Applications	Physics	Prof. Chandrabhas Narayana (JNCASR, Bangalore) Dr. Mahesh Hariharan Dr. Vinesh Vijayan (IISER, Thiruvananthapuram) Dr. Yoosaf Karuvath (CSIR-NIIST, Thiruvananthapuram)
11	Invited Lecture 11 Nov. 2015	College Level	How to make English Learning easy	English	Mr. Rajesh Mohan (Overseas Academy, Ernakulam)
12	Training Workshop 9 Oct. 2015	State	Apiculture	Zoology	Mr. B. Sunil (Assistant Engineer, Agroindustries, Kotarakkara)
13	Invited Lecture 30 Sep. 2015	State	Translation	English	Dr. P. Radhika (HoD, FMNC, Kollam)
14	Invited Lecture 18 Sep. 2015	State	World Cinema	English	Sri John Paul (Script Writer)
15	Invited Talk 16 Sep. 2015	College Level	Importance of Protecting the Ozone Layer	Physics	Dr. M. S. Bindu (Environment and Safeguard Specialist, Kerala Local Self Government)
16	Seminar 3 Sep. 2015	State	Sculpting Light – Holography and Applications	Physics	Dr. P.T. Ajith Kumar (President and Leading Scientist, Light Logics Holography and Optics)
17	Invited Talk 19 Aug. 2015	College Level	Green Nuclear Energy	Physics	Dr. P. J. Jojo (FMNC, Kollam)
18	Workshop 18 Aug. 2015	State	Theatre Workshop	English	Mr. Nooranad Suku (Drama Director)
19	Training Workshop 12 Aug. 2015	State	Onam bird count	Zoology	Mr. Harikumar (Nature Society, Kottayam)
			Academic Year	: 2014-15	
Sl No.	Event	Internati onal/Nat ional/Sta te	Topic	Host Department	Resource Person(s)
1	Invited Talk 11 Mar. 2015	State	Modern Literature and Life	English	Mr. Benyamin (Eminent Malayalam Writer)
2	Invited Talk	College	Polymer Nano	Chemistry	Dr. Soney C. George (Associate

	4 Mar. 2015	Level	Composites		Professor, Amal Jyothi College of Engineering, Kanjirapally)
3	Invited Lecture 4 Mar. 2015	State	Rapid Urbanisation in Debilitating the Kerala's Economy	Economics	Dr. D. Ratnaraj (Director, John Mathai Centre, University of Calicut)
4	Workshop 18 Feb. 2015	State	PYTHON Programming	Mathematics	Dr. Susamma Jacob (<i>Retd</i> . Asso.Prof, Bishop Moore College Mavelikara)
5	Conference 4 – 6 Feb. 2015	National	Materials Science and Technology (MSAT- 2015)	Physics	Dr. Ajayaghosh A. (Director, CSIR-NIIST, Thiruvananthapuram)
6	Lecture Workshop 21 – 22 Jan. 2015	State	Non-linear Dynamics and Chaos	Physics	Dr. M. Lakshmanan (Bharathidasan University) Dr. S. Rajashekhar (Bharathidasan University) Dr. G. Ambika (IISER, Pune)
7	Workshop 10-11 Jan. 2015	State	Literary Theory	English	Faculty Members of the Department of English, Bishop Moore College
8	Photo exhibition 18 Nov. 2014	College Level	Floristic diversity of Western Ghats	Botany and Biotech	Dr. Jomy Augustine (St. Thomas College, Pala)
9	Invited Lecture 31 Oct. 2014	State	Rocket Launching Technology	Physics	Shri Kiran K. P (ISRO Thiruvananthapuram)
10	Seminar 24 Oct. 2014	National	21 st Century English Classroom: Perspectives and Challenges	English	Dr. P. Bhaskaran Nair, Dr. Binu Zachariah (<i>Pondicherry Central</i> <i>University</i>) Dr. Lal C.A. (<i>Kerala University</i>)
11	Seminar 16 – 17 Oct. 2014	National	Recent Trends in General Chemistry	Chemistry	Dr. M. Padmanabhan (IISER, Thiruvananthapuram) Prof. Salahuddinkunju (University College, Thiruvananthapuram)
12	Invited Lecture 23 Sep. 2014	State	The Magic of Words: The Allure of Literature	English	Prof. Khyrunnisa A. (Assoc. Professor, All Saints College, Tvpm)
13	Invited Talk 18 Sep. 2014	College Level	Preservation of Ozone Layer	Science Club	Dr. Abhilash R. (Christian College, Chengannur)
14	Invited Talk 8 Sep.2014	College Level	Vision Kerala 2020	Economics	Sr. A. Abdul Salim (Associate Professor of Economics, University of Kerala)
15	Workshop 1 Sep. 2014	State	Common Bird Monitoring Programme	Zoology	Mr. Harikumar (WWF-India, Kerala)
16	Workshop 27 Aug.	State	LATEX Programming	Mathematics	Dr. E. Krishna (Associate Prof. of Statistics, St. Josephs



	2014				College, Alappuzha)				
17	Invited Lecture 11 Aug. 2014	College Level	Quantum Dot Sensitized Solar Cells	Physics	Dr. Ison V. Vanchipurakkal (St. Thomas College, Pala)				
18	Seminar 23 Jul. 2014	State	Conservation of Mangrove Ecosystem	Zoology	Mr. Harikumar (<i>WWF-India</i> , <i>Kerala)</i>				
19	Invited Talk 2014	State	Recent trends in Media	Malayalam	Shri M. G. Radhakrishnan, (Journalist and Media Personnel)				
	Academic Year: 2013-14								
Sl No.	Event	Internati onal/Nat ional/Sta te	Topic	Host Departme nt	Resource Person(s)				
1	Refresher Course 5-18 May. 2014	National	Quantum Mechanics	Physics	Prof. M. Lakshmanan (Bharathidasan University) Prof. G. Rajasekharan, Prof. H. S. Mani, Prof. Govind S. Krishnaswamy (Chennai Mathemetical Institute)				
2	Invited Talk 25 Mar. 2014	College Level	Taxonomy – an unending synthesis	Botany and Biotechnol ogy	Dr. Joby Paul (St. Thomas College, Thrissur)				
3	Seminar 20-22 Mar. 2014	National	Water Resource Management: Present uses, Status, Conservation and Co operation	Zoology	Dr. A. V. George (Vice Chancellor, M. G. University)				
4	Training programme 10 Mar. 2014	State	In situ cultivation of Butterflies through the construction of butterfly garden	Zoology	Dr. Abhilash R. (Christian College, Chengannur)				
5	Invited Lecture Feb 28, 2014	State	Starch Nanocrystal Reinforced Bionanocomposites	Chemistry	Rajisha R. (PhD scholar, M. G. University, Kottayam)				
6	Invited Lecture 26 Feb. 2014	State	Essential Qualities for Public Speaking	English	Prof. Jacob Eapen Kunnath (CMS College, Kottayam)				
7	Invited Lecture 25 Feb. 2014	State	National Science Day Celebrations	Physics	Dr. B. Premlet (TKM College, Kollam)				
8	Invited Lecture 19 Feb. 2014	State	Soft Lithography	Chemistry	Dr. GeethammaV.G., (Fulbright Fellow, University of Illinois, USA)				
9	Invited Lecture 19 Feb.	State	Kadhayum Kaalavum	Malayalam	Dr. K. S. Ravikumar (Sree Sankaracharya Sanskrit University, Kalady)				



	2014					
10	Invited Lecture 10- 11Feb.2014	State	Artificial Intelligence	Physics	Dr. Gladston Raj S. (Govt. College, Nedumangad) Dr. K.S. Anilkumar (Sree Ayyappa College, Eramallikkara) Dr. Jayamohan M. (IHRD, Adoor)	
11	Invited Talk 24 Jan. 2014	State	Factors Affecting Adhesion of Food Gels on Solid Surfaces	Chemistry	Rubie M. Sam (Research Scholar, AgroParisTech, France)	
12	Invited Lecture 19 Jan. 2014	State	Some Mega Trends in Kerala Society	Economics	Dr. K. K George (Former director of School of Management Studies, CUSAT)	
13	Invited Lecture 13 Jan. 2014	State	Bio-based Polyurethanes from Vegetable Oils	Chemistry	Prasanth Kumar S. (Research Scholar, Trent University, Canada)	
14	Invited Lecture 13 Dec. 2013	State	Mendeley software - A possible solution for our messed up bibliography	Chemistry	Rubie M. Sam (Research Scholar, Agro Paris Tech, France)	
15	Invited Lecture Sep 18.2013	State	Make no bones about the role of RunX2 in Vascular calcification	Chemistry	Anne Pavitra Jacob (PhD research scholar, Cardiovasular Department, Kings College, London)	
16	Invited Lecture Sep 5. 2013	State	How to Read a Movie	English	Dr. Manu Ramakant (S.N. College, Chempazhanthy)	
17	Seminar Aug 13-14. 2013	National	Reading Literature in the Contemporary Critical Paradigm	English	Prof. P. P.Raveendran (M.G.University) Dr. Chitra Panicker (Bangalore)	
18	Conference Aug 6-9. 2013	Internati onal	Perspectives in Vibrational Spectroscopy (ICOPVS-2013)	Physics	Prof. James R. Durig (University of South Carolina, USA) Prof. Petra Hellwig (University of Strasbourg, Illiniois) Prof. Jun-ya-Kohno (Gakushuin University, Japan) Prof. Chandrabhas Narayana (JNCASR, Bangalore) Dr. RejiPhilip (RRL, Bangalore)	
Academic Year: 2012-13						
Sl No.	Event	Internati onal/Nat ional/Sta te	Topic	Host Department	Resource Person(s)	
1	Seminar 25 – 26 March 2013	National	Emerging Dimensions of quality in Higher Education	IQAC	Dr. M. S. Shyamasundar (Deputy Advisor, NAAC) Shri T. P.Srinivasan IFS (Vice- Chairman, KSHEC)	



					Dr. Bhaskar N. Joshi (Professor
					Emeritus, Gulbarga University)
					Dr. Achuth Sankar (University of
	To '4 . 1				Kerala)
2	Invited Lecture	State	Theory of Resistance	English	Dr. J. Devika (Centre for Development Studies,
_	11 Mar. 2013	State	Theory of Resistance	Liigiisii	Thiruvananthapuram)
	Invited				A
3	Lecture	State	Poetry	English	Sri Kalpetta Narayanan (Poet)
	4 Mar. 2013				Dr. S Chandrasekharan (IISc,
	a .				Bangalore)
4	Seminar 27 Feb. –1	National	Green Materials	Chemistry	Dr. G. Unnikrishnan (NIT,
7	Mar. 2013	rational	Green Waterials	Chemistry	Calicut)
					Dr. K. E. George (<i>CUSAT</i> , <i>Kochi</i>)
	C		D-1'4'1 E		Dr. Thomas Issac (Former
5	Seminar 22 Feb. 2013	State	Political Economy of Corruption	Economics	Finance Minister Government of
			Corruption		Kerala)
6	Invited Lecture	State	Darshanangalum	Malayalam	Rev. Dr. K. M. George (Former Principal, Orthodox Theological
U	4 Jan. 2013	State	Sahithyavum	wiaiayaiaiii	Seminary, Kottayam)
7	Invited Talk	State	I'm Sad that I'm not Mad	English	Ms. Preethi Joseph (Raja Ravi
,	20 Dec. 2012	State	A Survey on Modern Art	211511011	Varma College, Mavelikara)
	Conference 12-14 Dec.		Recent Trends in	Botany and	Dr. K. Madhavan Nampoothiri
8	2012	National	Molecular Biology,	Biotechnolo	CSIR-NIIST,
			RTMB-2012	gy	Thiruvananthapuram)
0	Invited	Ctata	N	Dh:	Dr. K. Jeganathan
9	Lecture 6 Dec. 2012	State	Nanophotonics	Physics	(Bharathidasan University)
	0 2 001 2 012				Sri Aju K Narayanan,
10	Invited Talk	State	Filmic Discourse:	English	Sri.Cherry Jacob
20	28 Sep. 2012		Themes and Issues	8	(Assistant Professor, UC College, Alwaye)
					Prof. P.J. Oommen,
11	Seminar	National	Inclusive Growth and Indian Economy- Twenty	Economics	Prof. George M. Cheriyan (Retd.
11	19-20 Sep. 2012	National	Years of Liberalisation	Economics	Professor of Economics, Bishop
					Moore College)
12	Training programme	State	Vembenad Bird Count	Zoology	Mr. Harikumar (WWF India,
	17 Sep. 2012			bj	Kerala)
	G 3		Molecular Spectroscopy		Dr. Sylvia Turrell (Duy Tan
13	Conference 7-9 Aug.	Internati	of Advanced Materials	Physics	University, France) Dr. Hartwig Schulz (Julius Kühn-
13	7-9 Aug. 2012	onal	and Biomolecules	rilysics	Institute, Germany)
			(IMSAB 2012)		Prof. Petra Hellwig (University of



					Strasbourg, Illiniois)
14	Workshop 19-21Jul. 2012	State	LINUX and LaTeX programming	Mathematics	Dr.E.Krishna (University College Thiruvananthapuram) Prof.Viji Balakrishnan (IHRD Mavelikara) Prof.Sumesh S (St.John's College Anchal)
15	Seminar 14 July. 2012	State	Birds associated with paddy fields	Zoology	Dr. Mary Chandy(CMS College, Kottayam)
16	Invited Talk 14 Jun. 2012	State	Indian Aesthetics	English	Dr. V. Dinesh (Associate Professor of Sanskrit, Bishop Moore College)
			Academic Year: 2	011-12	
Sl. No.	Event	Internati onal/Nat ional/Sta te	Topic	Host Departmen t	Resource Person(s)
2	Invited Talk 21 Nov. 2011	State	Indian Economy through the Reform Period: Development Vs Deprivation	Economics	Dr. M.K Saralamma (University of Kerala, Kariavattom)
3	Invited Lecture 11 Nov. 2011	State	Evolution of Media and the Significance of Visual Media	English	Sri. John Paul (Script Writer)
4	Conference 26-27 Aug. 2011	National	Recent Trends in Vibrational Spectroscopy(RTVS- 2011)	Physics	Dr. J. J. Kim (Professor Emiretus, Korean Advanced Institute of Science and Technology, Korea) Dr. V.K. Rastogi (CCS University, Meerut) Dr. I. Hubert Joe (Mar Ivanios College, Thiruvananthapuram)
5	Workshop 5 Aug. 2011	State	Banking Sector Reforms	Economics	Mr. K.V. George (State Secretary of BEFI)
6	Invited Lecture 3 Aug. 2011	College Level	Hard Work, Perseverance and Success in Life	Economics	Prof P.J.Oommen (Vice President, YMCA Asia-Pacific Region)
7	Invited Lecture 1Aug. 2011	State	Shakespeare	English	Prof.C C Thomas (SB College, Changanacherry)
8	Seminar 8 Jul. 2011	National	Nano Chemistry	Chemistry	Dr. Sabu Thomas (Fellow of the Royal Society of Chemistry, UK)
9	Invited Talk 1Jul. 2011	State	Literature	English	Prof V C John (<i>Retd. Professor Bishop Moore College</i>)
			Academic Year: 2	010-11	



Sl No.	Event	Internati onal/Nat ional/Sta te	Торіс	Host Department	Resource Person(s)
1	Conference 3-5 Mar. 2011	Internati onal	The Impact of Climate Change on Food Security	All Departments	Dr.Najib Malik (Canadian International Development Agency CIDA) Sri. Chandra Bhushan (Centre for Science and Environment, New Delhi)
2	Seminar 12 Dec. 2010	State	Nano Technology and its Application in the Field of Lasers	Chemistry	Dr. Toney teddy Fernandez (Leeds University, London)
3	Invited Lecture 27 Jan. 2011	State	Art, Ecology and Culture	Malayalam	Dr. S. Rajasekharan (Pro Vice Chancellor, Sanskrit University, Kalady)
4	Invited Lecture 13 Jan. 2011	College Level	Complex Number Theory	Mathematics	Dr. Vijaya Krishnan (SD College, Alappuzha)
5	Seminar 10 Dec. 2010	State	Biodiversity and conservation	Botany	Mr. Simon Francis (Rtd. Assistant Conservator of Forests)
6	Invited Lecture 26 Nov. 2010	State	An Introduction to Photonics	Physics	Dr. Reji Philip (Raman Research Institute, Bangalore)
7	Invited Lecture 27 Oct. 2010	State	Recent Advances in Cancer Research	Botany	Dr. Asha S. Nair (RGCB, Thiruvananthapuram)
8	Invited Lecture 20 Oct.2010	State	Performance of India's Financial Sector	Economics	Dr. G. Karunakaran Pillai (Dept. of Economics University of Kerala)
9	Workshop 13 Oct. 2010	State	Diversity of Dragon flies	Zoology	Dr. Abraham Samuel A. (Reader, CMS College, Kottayam)
10	Invited Lecture 13 Aug. 2010	College Level	The Potential Dangers of E-waste and its management	Chemistry	Dr. Kuruvilla Joseph (IIST, Thiruvananthapuram)
11	Invited Lecture 11 Aug. 2010	State	Tips for Effective Learning	Economics	Prof. George M. Cherian (Rtd Professor Bishop Moore College)
12	Invited Lecture 23 Jul. 2010	College Level	Biodiversity and Conservation	Zoology	Dr. A. Bijukumar (Dept of Aquatic Biology, Kariavattom)



3.1.7. Provide details of prioritised research areas and the expertise available with the institution.

Department	Name of Faculty	Specialized Research area
	Dr. Laly A. Pothan	Polymer Composites
Chemistry	Dr. K. Kurien Thomas	Organic Synthesis
	Dr. Mathew Koshy	Environmental Chemistry
	Dr. Sherely Annie Paul	Polymer Composites
	Dr. Dinesh V. Raj	Plant Molecular Biology
	Dr. Asha Ramachandran	Ethnobotany and Phytochemistry
Botany and	Dr. Santhi W.S.	Cancer Biology
Biotech	Dr. Jisha S.	Nanobiology
	Dr. Prakash G. Williams	Microbial Biotechnology
	Dr. Brijithlal N. D.	Bryophyte Taxonomy
	Dr. Sivaprasad A.	Environmental Physiology of Biochemistry
Dhyaina	Dr. Thomas Kuruvilla	Nonlinear- Dynamics, Quantum computation
Physics	Dr. D. Sajan	Vibrational Spectroscopy, Quantum Computation
	Dr. ArunAravind	Oxide nanomaterials, Solar cells, Raman spectroscopy
	Dr. Laly Jacob	Eco-Physiology, Aquatic Biology and Fisheries
Zoology	Dr. Jacob Chandy	Ecotoxicology
	Dr. Deepthi G.R	Aquatic Biodiversity
	Dr. Reeja Jose	Freshwater Ecology
Economics	Dr. P. K. Varghese	Agricultural Economics and Plantation Economics
	Dr. Ranjith Mathew Abraham	Agricultural Economics
Commerce	Dr. Sajeeve V. P.	Security Analysis
Commerce	Dr. Varghese Anie Kurien	Public Sector Reforms
	Dr. Anne Angeline Abraham	American Literature and Women's Writing
English	Dr. Nair Anup Chandrasekharan	Indian Writings in English
	Dr. Divya S.	Comparative Epistemology

3.1.8. Enumerate the efforts of the institution in attracting researchers of eminence to visit the campus and interact with teachers and students?

- The Institution regularly organises conferences, seminars and workshops in order to rope in researchers of eminence to visit the campus and interact with teachers and students.
- Indian Science Academies have conducted two lecture workshops and one refresher course in the Department of Physics.
- Eminent scientists/academicians are invited to interact with the teachers and students during the programmes.
- J IQAC of the College is also involved in organising lectures and inviting eminent resource persons to address the teaching staff on issues relating to 'quality' in higher education.

The following eminent personalities have visited the campus and interacted with the students on various occasions.

Academic Year	No. of Eminent Personalities from			
Academic Tear	Within State	Outside State	Outside Country	
2015-16	18	4	2	
2014-15	13	4	0	
2013-14	13	7	6	
2012-13	26	6	4	
2011-12	9	1	1	
2010-11	2	1	3	

	Academic Year 2015-16					
Sl No.	Name of Personality	Affiliation	Event and Date			
1	Dr. Manju S. Nair	University of Kerala, Thiruvananthapuram	Workshop 16-17 Feb. 2016			
2	Dr. A. Abdul Salim	University of Kerala, Thiruvananthapuram	Workshop 16-17 Feb. 2016			
3	Dr. V. Nagarajan Naidu	University College, Thiruvananthapuram	Workshop 16-17 Feb. 2016			
4	Mr. T. P. Sreenivasan	Kerala State Higher Education Council	Invited Lecture 15 Feb. 2016			
5	Dr. V. Manikantan Nair	Govt.Women's College,	Invited Lecture			

		Thiruvananthapuram	29 Jan. 2016
-	Du Cussis C	•	Invited Talk
6	Dr. Sreeja S.	Karlsuhe University, Germany	14 Jan. 2016
7	Dr. Navas	Karlsuhe University, Germany	Invited Talk
-		•	14 Jan. 2016
8	Dr. Reji Philip	Raman Research Institute,	National Seminar 6-8 Jan. 2016
		Bangalore	National Seminar
9	Dr. M. K. Jayaraj	CUSAT	6-8 Jan. 2016
10	D DM A 1	CLICATE	National Seminar
10	Dr. P.M. Aneesh	CUSAT	6-8 Jan. 2016
11	Dr. Madhavan Nampoothiri	Govt. College, Nattakom	Invited Lecture
11	Di. Madiavan Mampootini	Govt. Conege, Nattakom	4 Jan. 2016
12	S.V. M. Sathanarayana	Pondicherry Central University	Lecture Workshop
	•	·	4-5 Mar. 2016 Lecture Workshop
13	Joseph C Prabhakar	Loyola College, Chennai	4-5 Mar. 2016
	Prof. Chandrabhas		Lecture Workshop
14	Narayana	JNCASR, Bangalore	11 – 13 Nov. 2015
15	Dr. Yoosaf Karuvath	CSIR-NIIST,	Lecture Workshop
13	Di. 100sai Kaiuvaui	Thiruvananthapuram	11 – 13 Nov. 2015
16	Dr. Mahesh Hariharan	IISER, Thiruvananthapuram	Lecture Workshop
		•	11 – 13 Nov. 2015
17	Dr. VineshVijayan	IISER, Thiruvananthapuram	Lecture Workshop 11 – 13 Nov. 2015
			Invited Lecture
18	Mr. Rajesh Mohan	Overseas Academy, Ernakulam.	11 Nov. 2015
19	Dr. P. Radhika	HoD EMN College Volley	Invited Lecture
19	DI. F. Kauliika	HoD, FMN College, Kollam	30 Sep. 2015
20	Sri. John Paul	Renowned Script Writer	Invited Lecture
		*	18 Sep. 2015
21	Dr. M S Bindu	Environment and Safeguard Specialist, Kerala Local Self	Invited Lecture
41	DI. WIS BIIIdu	Government, Govt. of Kerala	16 Sep. 2015
		President and Leading Scientist,	C ·
22	Dr. P.T. Ajith Kumar	Light Logics Holography and	Seminar
		Optics	3 Sep. 2015
23	Dr. P. J. Jojo	Fatima Matha National College,	Invited Lecture
	,	Kollam	19 Aug. 2015
24	Mr. NooranaduSuku	Drama Director	Theatre Workshop
	N. V. Cl.		18 Aug. 2015 Invited Lecture
25	Mr. U Chiranjeevi	Reserve Bank of India	7 Aug. 2015
			, 1145. 2013



	Academic Year 2014-15				
Sl No.	Name of Personality	Affiliation	Event and Date		
1	Mr. Benyamin	Eminent Writer	Invited Talk 12 March 2015		
2	Dr. Soney C. George	Amal Jyothi College of Engineering, Kanjirapally	Invited Lecture 4 March 2015		
3	Dr. A. Ajayaghosh	Deputy Director, NIIST, Thiruvananthapuram	National Conference 4 – 6 Feb. 2015		
4	Dr. N. V. Unnikrishnan	Director, School of Applied Physics and Emeritus Professor, M. G. University, Kottayam	National Conference 4 – 6 Feb. 2015		
5	Dr. Madhu Thalakkulam	Scientist, IISER, Thiruvananthapuram	National Conference 4 – 6 Feb. 2015		
6	Dr. M. Lakshmanan	Bharathidasan University	Lecture Workshop 21 – 22 Jan. 2015		
7	Dr. S. Rajashekhar	Chennai Mathematical Institute, Chennai	Lecture Workshop 21 – 22 Jan. 2015		
8	Dr. G. Ambika	IISER, Pune	Lecture Workshop 21 – 22 Jan. 2015		
9	Dr. Jomy Augustine	Asso. Professor and Head, Dept. of Botany St. Thomas College, Pala	Invited Lecture 18 Nov. 2014		
10	Dr. Kiran K. P.	Scientist, ISRO, Thiruvananthapuram	Invited Lecture 31 Oct. 2014		
11	Dr. M. Padmanabhan	IISER, Thiruvananthapuram	National Seminar 16 – 17 Oct. 2014		
12	Dr. A Salahuddinkunju	Retd. Professor, University College, Thiruvananthapuram	National Seminar 16 – 17 Oct. 2014		
13	Dr. S. Murugan	Retd. Professor, S T Hindu College, Nagercoil	National Seminar 16 – 17 Oct. 2014		
14	Prof. S. Syamchand	University College, Thiruvananthapuram	National Seminar 16 – 17 Oct. 2014		
15	Prof. Khyrunnisa A.	Assoc. Professor, All Saints College, Thiruvananthapuram	Invited Lecture 23 Sep. 2014		
16	Dr. Ison V. Vanchipurackal	St. Thomas College, Pala	Invited Lecture 11 Aug. 2014		
17	Dr. P. Sachidanandan	Asst. Director, Forensic Science Laboratory, Kannur	Invited Talk 1 Aug. 2014		
		Academic Year 2013-14			
Sl No.	Name of Personality	Affiliation	Event and Date		

1	Prof. M. Lakshmanan	Bharathidasan University	Refresher Course 5 – 18 May 2014
2	Prof. G. Rajasekharan	Chennai Mathematical Institute	Refresher Course 5 – 18 May 2014
3	Prof. H. S. Mani	Chennai Mathematical Institute	Refresher Course 5 – 18 May 2014
4	Prof. Govind S. Krishnaswamy	Chennai Mathematical Institute	Refresher Course 5 – 18 May 2014
5	Dr. Sheena Shukkur	Pro-Vice Chancellor, MG University, Kottayam	Refresher Course 5 – 18 May 2014
6	Dr. Joby Paul	Asst. Professor in Botany, St. Thomas College, Thrissur	Invited Lecture 25 March 2014
7	Sri.Kalpetta Narayanan	Renowned Malayalam poet	Invited Lecture 4 March 2013
8	Mr. A. Badharudeen	Additional District and Sessions Judge, Mavelikara	Invited Lecture March 2014
9	Prof. Jacob Eapen Kunnath	CMS College, Kottayam	Invited Lecture 26 Feb. 2014
10	Dr. Thomas Issac	Former Finance Minister, Government of Kerala.	Bishop M. M. John Memorial Lecture 22 Feb. 2013
11	Dr. Radhakrishnan E.K.	Asst. Professor in Microbiology School of Biosciences, MG University	Invited Lecture 20 Feb. 2014
12	Dr. Geethamma V.G.	Royal Society International Postdoctoral Fellow, Cavendish Lab, University of Cambridge, UK	Invited Lecture 19 Feb. 2014
13	Dr. Premlet B.	TKM College, Kollam	Invited Lecture 18 Feb. 2014
14	Dr. K.K George	Former Director, Management Studies, CUSAT	Bishop M.M. John Lecture 29 Jan. 2014
15	Dr. Gladston Raj S.	Head, Department of Computer Science at Govt. College, Nedumangad	Rev. K. C. Mathew Endowment Lecture 10 – 11 Jan. 2014
16	Dr. K.S. Anilkumar	Associate Professor, Sree Ayyappa College, Eramellikkara	Rev. K. C. Mathew Endowment Lecture 10 – 11 Jan. 2014
17	Dr. Jayamohan M.	IHRD College of Applied Science, Adoor	Rev. K. C. Mathew Endowment Lecture 10 – 11 Jan. 2014



18	Ms. Rubie M. Sam	Agro Paris Tech, France	Invited Lecture 13 Dec. 2013
19	Mr. Drew Hayden Taylor	Award-winning playwright and novelist, Canada	Interface with author 2 Dec. 2013
20	Prof. P. P. Raveendran	M.G. University, Kottayam	National Seminar 13 – 14 Aug. 2013
21	Dr. Chitra Panicker	Bangalore University	National Seminar 13 – 14 Aug. 2013
22	Prof. James R. Durig	University of South Carolina, USA	International Conference 6 – 9 Aug. 2013
23	Prof. Petra Hellwig	University of Strasbourg, Illiniois	International Conference 6 – 9 Aug. 2013
24	Prof. Jun-ya-Kohno	Gakushuin University, Japan	International Conference 6 – 9 Aug. 2013
25	Prof. Chandrabhas Narayana	JNCASR, Bangalore	International Conference 6 – 9 Aug. 2013
		Raman Research Institute,	International
26	Dr. Reji Philip	Bangalore	Conference 6 – 9 Aug. 2013
26	-		
SI No.	-	Bangalore	
Sl	,	Bangalore Academic Year 2012-13	6 – 9 Aug. 2013
Sl No.	Name of Personality	Bangalore Academic Year 2012-13 Affiliation Deputy Advisor, NAAC,	6 – 9 Aug. 2013 Event and Date National Seminar
SI No.	Name of Personality Dr. M.S. Syamasundar	Academic Year 2012-13 Affiliation Deputy Advisor, NAAC, Bangalore	Event and Date National Seminar 25 – 26 March 2013 National Seminar
SI No. 1	Name of Personality Dr. M.S. Syamasundar Shri T. P. Srinivasan	Academic Year 2012-13 Affiliation Deputy Advisor, NAAC, Bangalore IFS, Vice Chairman, KSHEC Professor Emiretus, Gulbaraga	Event and Date National Seminar 25 – 26 March 2013 National Seminar 25 – 26 March 2013 National Seminar Antional Seminar
SI No. 1 2 3	Name of Personality Dr. M.S. Syamasundar Shri T. P. Srinivasan Dr. Bhaskar N. Joshi	Academic Year 2012-13 Affiliation Deputy Advisor, NAAC, Bangalore IFS, Vice Chairman, KSHEC Professor Emiretus, Gulbaraga University Head, Department of Computational Biology and	Event and Date National Seminar 25 – 26 March 2013 National Seminar
SI No. 1 2 3	Name of Personality Dr. M.S. Syamasundar Shri T. P. Srinivasan Dr. Bhaskar N. Joshi Dr. Achuth Sankar	Academic Year 2012-13 Affiliation Deputy Advisor, NAAC, Bangalore IFS, Vice Chairman, KSHEC Professor Emiretus, Gulbaraga University Head, Department of Computational Biology and Bioinformatics, Kerala Unvty.	Event and Date National Seminar 25 – 26 March 2013 National Conference
SI No. 1 2 3 4 5	Name of Personality Dr. M.S. Syamasundar Shri T. P. Srinivasan Dr. Bhaskar N. Joshi Dr. Achuth Sankar Dr. A.V. George	Academic Year 2012-13 Affiliation Deputy Advisor, NAAC, Bangalore IFS, Vice Chairman, KSHEC Professor Emiretus, Gulbaraga University Head, Department of Computational Biology and Bioinformatics, Kerala Unvty. Vice Chancellor, M.G. University Director Biodiversity Board,	Event and Date National Seminar 25 – 26 March 2013 National Conference 20 – 23 March 2013 National Conference

			20 – 23 March 2013
9	Dr. Bijoy Nandan	Associate Professor in Fishery science, KUFOS	National Conference 20 – 23 March 2013
10	Dr. Susan J. Panicker,	Professor and HOD, T.K.M. College of Engineering	National Conference 20 – 23 March 2013
11	Dr. Nandakumar	Director, CESS, Thiruvananthapuram	National Conference 20 – 23 March 2013
12	Dr. G. Unnikrishnan	NIT, Kozhikode	National Seminar 28 Feb. – 2 Mar. 2013
13	Dr. Thomas Kurian	CUSAT, Kochi	National Seminar 28 Feb. – 2 Mar. 2013
14	Dr. K E George	CUSAT, Kochi	National Seminar 28 Feb. – 2 Mar. 2013
15	Dr. S S.Bhagawan	Amrita Vishwa Vidyapeetham, Coimbatore	National Seminar 28 Feb. – 2 Mar. 2013
16	Dr. S Chandrasekharan	IISc, Bangalore	National Seminar 28 Feb. – 2 Mar. 2013
17	Dr. K. Madhavan Nampoothiri	Scientist EII, Biotechnology Division NIIST, CSIR Thiruvananthapuram-695 019	National Seminar 12-14 Dec. 2012
18	Dr. Srinivas G.	Scientists D, Dept. of Biochemistry SCTIMST, Thiruvananthapuram	National Seminar 12-14 Dec. 2012
19	Dr. Lakshmi S.	Asst. Professor, Lab. of Molecular Medicine Regional Cancer Centre, Thiruvananthapuram	National Seminar 12-14 Dec. 2012
20	Dr. Priya Sreenivas	Scientist E II, Rajiv Gandhi Centre for Biotechnology(RGCB) Thiruvananthapuram	National Seminar 12-14 Dec. 2012
21	Dr. Krishnakumar B.	Environmental Technology Division, NIIST-CSIR Thiruvananthpuram-19	National Seminar 12-14 Dec. 2012
22	Dr. Rajeev K. Sukumaran	Scientist, Centre for Biofuels, NIIST-CSIR Thiruvananthpuram-19	National Seminar 12-14 Dec. 2012
23	Dr. P.G. Latha	Director, JNTBGRI, Palode, Thiruvananthapuram	National Seminar 12-14 Dec. 2012
24	Dr. K. Jeganathan	Bharathidasan University, Thiruchirappalli	Rev. K. C. Mathew Endowment Lecture 6 December 2012
25	Dr. S. Iyyampillai	Bharathidasan University	National Seminar 19 – 20 Sep. 2012



26	Dr. P.S. Mohanakumar	DC School of Management,	National Seminar			
		Thiruvananthapuram	19 – 20 Sep. 2012			
27	Dr. Manju S. Nair	University of Kerala	National Seminar 19 – 20 Sep. 2012			
28	Dr. A. K. Prasad	University of Kerala	National Seminar 19 – 20 Sep. 2012			
29	Mr. C. P John	Member, Kerala State Planning	National Seminar			
		Board.	19 – 20 Sep. 2012			
30	Dr. M. Jayaprakas	DCDC, University of Kerala	National Seminar 19 – 20 Sep. 2012			
31	Dr. Sylvia Turrell	Duy Tan University, France	International Conference 7 – 9 Aug. 2012			
32	Dr. Hartwig Schulz	Julius Kühn-Institute, Germany	International Conference 7 – 9 Aug. 2012			
33	Prof. Petra Hellwig	University of Strasbourg, Illiniois	International Conference 7 – 9 Aug. 2012			
34	Dr. E. Krishna	Former HoD of Mathematics, University College, Thiruvananthapuram	Lecture Workshop 19-21 Jul. 2012			
35	Prof.Viji Balakrishnan	Dept.of computer Science, IHRD, Mavelikara	Lecture Workshop 19-21 Jul. 2012			
36	Prof. Sumesh S	Dept. of Mathematics, St.Johns College, Anchal	Lecture Workshop 19-21 Jul. 2012			
	5 7					
		Academic Year 2011-12				
Sl No.	Name of Personality	Academic Year 2011-12 Affiliation	Event and Date			
		Affiliation Scientist JNTBGRI, Palodu,	Invited Lecture			
No.	Name of Personality	Affiliation				
No.	Name of Personality Dr. Mathew Dan	Affiliation Scientist JNTBGRI, Palodu, Thiruvananthapuram Former HoD, Department of Economics, University of Kerala,	Invited Lecture 19 Dec. 2011 Invited Lecture			
No. 1 2	Name of Personality Dr. Mathew Dan Dr. M.K Saralamma,	Affiliation Scientist JNTBGRI, Palodu, Thiruvananthapuram Former HoD, Department of Economics, University of Kerala, Kariavattom Professor Emiretus, Korean Advanced Institute of Science	Invited Lecture 19 Dec. 2011 Invited Lecture 21 Nov. 2011 National Conference			
No. 1 2 3	Name of Personality Dr. Mathew Dan Dr. M.K Saralamma, Dr. J. J. Kim	Affiliation Scientist JNTBGRI, Palodu, Thiruvananthapuram Former HoD, Department of Economics, University of Kerala, Kariavattom Professor Emiretus, Korean Advanced Institute of Science and Technology CCS University, Meerut Pro Vice Chancellor, MG	Invited Lecture 19 Dec. 2011 Invited Lecture 21 Nov. 2011 National Conference 26-27 Aug. 2011 National Conference 26-27 Aug. 2011 National Conference			
No. 1 2 3 4	Name of Personality Dr. Mathew Dan Dr. M.K Saralamma, Dr. J. J. Kim Dr. V.K. Rastogi	Affiliation Scientist JNTBGRI, Palodu, Thiruvananthapuram Former HoD, Department of Economics, University of Kerala, Kariavattom Professor Emiretus, Korean Advanced Institute of Science and Technology CCS University, Meerut	Invited Lecture 19 Dec. 2011 Invited Lecture 21 Nov. 2011 National Conference 26-27 Aug. 2011 National Conference 26-27 Aug. 2011			

		Thiruvananthapuram	26-27 Aug. 2011
7	Dr. T S Anirudhan	Kerala University,	National Seminar
,	Di. 1 5 Amrudhan	Thiruvananthapuram	8 July 2011
0	Da Calva Thamas	MC University Vetterson	National Seminar
8	Dr. Sabu Thomas	MG University, Kottayam	8 July 2011
0	Dr. Dr. d. d. Madhann	CMC C-11 V-44	Invited Lecture
9	Dr. Rachel Mathew	CMS College, Kottayam	8 July 2011
40		**************************************	Invited Lecture
10	Dr. C. P. Reghunadhan Nair	VSSC, Thiruvananthapuram	8 July 2011
	Prof. V. N. Rajasekharan	Executive Vice-President,	Invited Lecture
11	Pillai	KSCSTE	8 July 2011
			0 0 0 1 j 2 0 1 1
	1	Academic Year 2010-11	
Sl No.	Name of Personality	Affiliation	Event and Date
		Consdian Intermetional Development	International
1	Dr.Najib Malik	Canadian International Developmer	Conference
	•	Agency CIDA	3 – 5 March 2011
			International
2	Sri. Chandra Bhushan	Centre for Science and Environmen	t, Conference
		NewDelhi	3 – 5 March 2011
_		Pro Vice Chancellor, Sanskrit	Invited Lecture
3	Dr. S. Rajasekharan	University Kalady	27 Jan. 2011
		Associate professor, S. D. College,	Invited Talk
4	Dr. Vijaya Krishnan	Alappuzha	13 Jan. 2011
		Assistant conservator of forest (Rtd)), Invited Lecture
5	Mr. Simon Francis	Govt. of Kerala	10 Dec. 2010
_		Member district committee, Kerala	Invited Lecture
6	Mr. B. Anandakuttan	Sasthra Sahihtya Parishat, Kerala	10 Dec. 2010
_	D C 1 V	Asst. Professor in Botany, Govt.	Invited Lecture
7	Dr. Suresh V.	Victoria College, Palakkad	10 Nov. 2010
0	D I/ 1 Pill !	Honorary Professor, Dept. of	Invited Lecture
8	Dr. Karunakaran Pillai	Economics, University of Kerala	20 Oct. 2010
		Scientist E II, Rajiv Gandhi Centre	T
9	Dr. Asha S. Nair	for Biotechnology (RGCB),	Invited Lecture
		Thiruvananthapuram	27 Oct. 2010
4.0		Communications Director, Alliance	e Invited Talk
10	Ms. Victoria Finalay	for Religions and Conservations, Ul	
		Professor and Head of the	
11	Dr. Kuruvilla Joseph	Department of Chemistry, IIST,	Invited Lecture
		Thiruvananthapuram	13 Aug. 2010

3.1.9. What percentage of the faculty has utilized Sabbatical Leave for research activities? How has the provision contributed to improve the quality of research and imbibe research culture on the campus?

Six (11%) of the permanent faculty members were sanctioned study leave for undertaking research activities leading to the award of PhD Degree during the last five years.

Sl No.	Name of faculty	Department	Institute	Period of leave
1	Dr. Ranjith Mathew Abraham	Economics	University of Kerala, Thiruvananthapuram	2009-12
2	Dr. Varghese Anie Kurien	Commerce	University of Kerala, Thiruvananthapuram	2009-12
3	Dr. Dinesh Raj R.	Botany and Biotechnology	Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram	2011-13
4	Giggy P. Koshy	English	M.G. University, Kottayam	2012-14
5	Suma Alexander	English	University of Kerala, Thiruvananthapuram	2011-15
6	Dr. Jacob Chandy	Zoology	University of Kerala, Thiruvananthapuram	2012-14

- Participation of faculty in workshops and paper presentations in International and National seminars increased.
- Publications in International and National journals increased.
- J Establishment of linkage for academics and research became easier.
- 3.1.10. Provide details of the initiatives taken up by the institution in creating awareness/advocating/transfer of relative findings of research of the institution and elsewhere to students and community (lab to land)
 - Research scholars regularly conduct presentations to discuss their findings and observations.
 - Details of publications from the Departments are updated in the College website.
 - The news bulletin announces the research outcomes from the College.



- International/National conferences and Seminars are conducted. (See table in 3.7.4)
- PG and UG students are encouraged to lead projects at the research centres of the College. The copies of the projects are kept in the Department library for reference.
- The Proceedings of the conferences and seminars organised by the College have been published. The list of proceedings are furnished in section 3.4.2
- Faculty members and research scholars are encouraged to present research papers in International and National Conferences.

The list of presentations in International/National conferences is given below:

Sl. No	Name of Faculty	Title of Paper	Name of Conference and date
1	Reshmi R, K. Kurien Thomas	Novel benzothiazoloylthazole binary system for effective sulphur vulcanisation of natural rubber	SPSI Annual meeting organised by Polymer Society of India, Thiruvananthapuram, 19 Jan. 2014.
2	Reshmi R, K. Kurien Thomas	Physicochemical comparison of two novel binary systems in natural rubber	National seminar on Green Materials, Bishop Moore College, Mavelikara, 27 Feb. – 1 March, 2013
3	Reshmi R, D. Sajan, K. Kurien Thomas	Synthesis and crystal growth of 3-(2-morpholinyl-4-phenylthiazol-5-oyl) coumarin	National Workshop on Computer Aided Drug Designing, S. N. College, Chengannur, 17- 19 March 2011.
4	Reshmi R, K. Kurien Thomas	N-Benzoil-N,'N'-disubstituted thioureas —a new binary accelerator system for sulfur vulcanization of natural rubber	23 rd Kerala Science Congress, CESS, Thiruvananthapuram, India, 29-31 January 2011
5	Reshmi R, K. Kurien Thomas	Green chemical synthesis of benzothiazoloylthiazoles and their secondary accelerator studies	97 th Indian Science Congress, Thiruvananthapuram, 3-7 January 2010
6	Reshmi R, K. Kurien Thomas	Synthesis and antibacterial studies of 4-amino-5-(N-methylbenzimidazol-2-oyl)-2- S-thiobenzylthiazole	Matcon-2010, CUSAT, Kochi, 11-13 January 2010.
7	Sherely Annie	Development and	International Conference organised

	Paul	characterization of low density polyethylene/cellulose microfibril composites	by Society of Plastics Engineers, SPE ANTEC® NPE2012 in Orlando, Florida, United States of America, 2 - 4 April 2012.
8	Sherely Annie Paul	Cellulose microfibrils as reinforcement for polymer matrix	International and National Seminar "Challenges and Opportunities in Integrating Coir and Other Natural Fibers" Coir Kerala 2015 held at Alappuzha, 1-4 February 2015
9	Anne Angeline Abraham	Nikki Giovanni: A Celebration of Blackness- Literatures of Marginality	UGC National Seminar, VHNSN College, Tamil Nadu, 30-31March, 2009
10	Anne Angeline Abraham	A Poet's Response to Biodiversity: Nikki Giovanni – An Ecocritical Reading	International Conference on The Impact of Climate Change on Food Security Bishop Moore College, Mavelikara, 3-5 March, 2011
11	Anne Angeline Abraham	Harlem to Hip Hop: History through the Poetry of Nikki Giovanni -In Search of Solutions: The Conventional, The Experimental and The Bizarre	International Conference, Osmania University Centre for International Programmes (OUCIP), Hyderabad and MELOW (The Society for the Study of the Multi Ethnic Literatures of the World), 22-24 September, 2011
12	Anne Angeline Abraham	Redefining Relationships: Panchaali's Perspectives in The Palace of Illusions	12 th International MELOW Conference, University of Chandigarh, 8-10 February, 2013
13	Suma Alexander	The Gamut of Colonial Impact in William Dalrymple's White Mughals: Love and Betrayal in Eighteenth Century India	National Seminar at St. John's College, Palayamkottai, 3 April, 2012
14	Suma Alexander	Narrative Texture in Robert Browning's The Bishop Orders His Tomb at St. Praxed's Church	UGC-sponsored National Seminar at Alagappa Government Arts' College, Karaikudi
15	Suma Alexander	Locating Female Experience in William Dalrymple's Select Historical Narratives	UGC-sponsored National Seminar at Catholicate College, Pathanamthitta, 16 February, 2013
16	Suma Alexander	Appropriating the Residues of the Past in William Dalrymple's Return of a King: The Battle for Afghanistan	UGC-sponsored National Seminar at MSM College, Kayamkulam, 21 June 2013
17	Suma Alexander	Narrative Texture in S.J. Sutherland's A Synagogue in	UGC-sponsored National Seminar at St. Cyril's College, Adoor, 12

		Samarkand	August, 2013
18	Suma Alexander	Cultural Crossovers in the Colonial Context: An Analysis of William Dalrymple's White Mughals: Love and Betrayal in Eighteenth Century India	UGC-sponsored National Seminar at Bishop Moore College, Mavelikara, 14 August, 2013
19	Nair Anup Chandrasekhara n	The Poetry of Emily Dickenson and Toru Dutt: An Analysis in Comparison	International Conference conducted by The Department of English and CLS, Saurashtra University, Rajkot in 2010
20	Nair Anup Chandrasekhara n	Indian Renaissance Poetry in English: Investigating the Beginnings	National Conference on English Language and Literature at NAM College, Kannur, 13 February, 2012
21	Divya S	Bonding with the Unborn: Negotiating 'personal space' and reclaiming 'selfhood' in Jahnvi Barua's Rebirth	National Conference on Post- Modernism and Progressive India: Literary Articulations and Non-Literary Interventions held at Garden City College, Bangalore, 22 and 23 March 2013
22	Divya S	Representing Gender Stereotypes and Sexuality	UGC Sponsored National Workshop on Film Theory and Appreciation: The Dynamics of Popular Cinema held at Union Christian College, Aluva on 15 March, 2012
23	Anusha Das	Computer Assisted Vocabulary Acquisition Programme for Teaching English to Young Learners	National Conference organised by Velammal Engineering College, Chennai, in association with ELTAI, July 19-21, 2012
24	Vidu Vijayan	An Alternative Site for Self- Expression: Strret in Rakeysh Om Prakash Mehra's Rang De Basanti	UGC Sponsored National Workshop on Film Theory and Appreciation: The Dynamics of Popular Cinema held at Union Christian College, Aluva on 15 March, 2012
25	Vidu Vijayan	Identity as Regulatory Discourse: Exploring the Inter-Linked Constructs of Self in Romen Basu's Breach of Faith	National Conference on Post- Modernism and Progressive India: Literary Articulations and Non-Literary Interventions held, at Garden City College, Bangalore on 22 and 23 rd March 2013



26	Bhagyalakshmi Mohan	Lesbian Identity and Politics of Representation in Select Movies	UGC Sponsored National Seminar on Cultural Studies: Changing Perspectives on Literature and Society held at Henry Baker College, Melukavu, Kerala, 27-28 January 2011
27	Bhagyalakshmi Mohan	The Positioning of Nair Women: A Reading of MT"s Screenplays	UGC National Seminar Scripting Success held at St. Joseph's College for Women, Alappuzha, 23-24 January 2012
28	Bhagyalakshmi Mohan	Positioning through the Dislocation of Space: a Reading of Manhu	UGC Sponsored workshop on Film Theory and Appreciation: The Dynamics of Popular Cinema held at Union Christian College, Alwaye, 15-16 March 2012
29	Bhagyalakshmi Mohan	Shifting Spaces and Representations: a Reading of Select Widow Narratives	UGC Sponsored National Seminar on Reading Literature in the Contemporary Critical Paradigm held at Bishop Moore College, Mavelikara on August 13 and 14, 2013.
30	Bhagyalakshmi Mohan	Chinese Canadian, Japanese Canadian, Chinese American Diaspora	UGC-SAP National Workshop on Diaspora Studies held at Institute of English, University of Kerala, 22-23 November 2013
31	Neethu Mary Philip	Visioning Empire: Neo- Victorianism in John Fowles' The French Lieutenant's Woman	UGC-sponsored National Seminar at Bishop Moore College, Mavelikara, 14 August 2013
32	Neethu Mary Philip	Chasing Life: The Art of Devotion in Elizabeth Gilbert's Eat, Pray, Love	UGC-sponsored National Seminar at Fatima Mata National College, Kollam 16 September 2015
33	P.K. Varghese	Greenhouse Effect and Global Warming: It's Far Reaching Impact on Agriculture, Food Security and Human survival in India	International Conference on the "Impact Of Climate Change on Food Security" organised by Bishop Moore College, Mavelikara, 3-5 March 2011
34	P.K. Varghese	Inclusive Growth in India: A dream yet to be realized	UGC sponsored National Seminar on Inclusive Growth and Indian Economy: Twenty Years of Liberalisation organised by the Department of Economics, Bishop Moore College, Mavelikara, 19-20 Sep. 2012

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35	P.K. Varghese	Black Money in Real Estate Sector in India: A Boon or Bane,	UGC sponsored National seminar on Informal economy and its impact on India held at St. Aloysius College, Elthuruth, Thrissur, 8-9 October 2013.
36	Ranjith Mathew Abraham	Female Employment in Agriculture	UGC sponsored National seminar on Rural Development: Progress, Problems and Programme Effectiveness organised by the Department of Economics, University of Kerala, Thiruvananthapuram, 2-3 Dec. 2010
37	Ranjith Mathew Abraham	Agricultural Credit Flow in Kerala: Some Economic Aspects	UGC Sponsored International Seminar on Emerging Dimensions of Banking Sector in the Global Scenario held at the Department of Commerce, Manonmaniam Sundaranar University, Tirunelveli, Tamilnadu, 21-22, January 2011
38	Ranjith Mathew Abraham	An Economic Analysis of Agricultural Credit Flow in Kerala	International Conference on Innovation and Inclusion in Banking: Issues Strategies and Options", organised by the Department of Applied Economics, Kannur University, Kannur, 3-4 February 2011
39	Ranjith Mathew Abraham	Kerala Inching Towards Food Insecurity	International Conference on The
		Insecurity	Impact of Climate Change on Food Security held at Bishop Moore College, Mavelikara from 3rd to 5th March,2011
40	Ranjith Mathew Abraham	Displacement of the Female from the Agricultural Workforce in Kerala	Security held at Bishop Moore College, Mavelikara from 3rd to 5th
41		Displacement of the Female from the Agricultural Workforce in	Security held at Bishop Moore College, Mavelikara from 3rd to 5th March,2011 53rd Annual Conference of the Indian Society of Labour Economics, held at Mohanlal Sukhadia University, Udaipur, 17-

	Abraham	Declining Terms of Trade in Agriculture: The Case of Kerala	Conference on Recent Inflationary Trends and its Impact on Economic Growth of India held at S.T Hindu College, Nagercoil from 7-8th December,2012
43	Ranjith Mathew Abraham	Agricultural Costs and Prices in Kerala –A pre and post reform period Analysis	National seminar on "Emerging Challenges and Prospects of 20 years of Economic Reforms in India" held at Government College, Kattappana, 31 October to 1 November 2013
44	Ranjith Mathew Abraham	Agricultural Costs and Prices-The case of Kerala	Darshan 2014 Series of Lectures organisesd by the T K Madhava Memorial College, Nangiarkulangara, 14 Feb. 2014
45	Ranjith Mathew Abraham	Bio-energy: Problems and prospects	UGC sponsored national seminar on Energy Crisis: Problems and Prospects in the age of Indian Liberalisation held at St.Cyrils College, Adoor, 20-21 Feb. 2014
46	Jerin Susan John, D. Sajan	Characterization of Organic NLO Material Using Spectroscopic Techniques,	Proceedings of 5th International Conference on Perspectives in Vibrational Spectroscopy, July 2014
47	V. Sasikala, D. Sajan	Growth, molecular structure, vibrational and UV-Vis spectral analysis, first order hyperpolarizability and Z-scan studies of NLO crystal:Urea Ninhydrin Monohydrate	Proceedings of 5th International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS 2014), Thiruvananthapuram. 8-12 July 2014
48	V Sasikala, D Sajan	A Density Functional Theory Computation on the Structure and Donor-Acceptor Interactions of an NLO active molecule: Guanidinium 4-nitrobenzoate (GPNB)	Proceedings of the "National Conference on Materials Science and Technology (MSAT-2015), Bishop Moore College, Mavelikara, 04-06 Feburary2015
49	Jesby George, D Sajan	DFT studies on Molecular Structure and Vibrational Spectra of Guanidinium 4-Aminobenzoate	, Proceedings of the "National Conference on Materials Science and Technology (MSAT-2015), Bishop Moore College, Mavelikara, 04-06 Feburary 2015
50	Lynnette Joseph, D.	Scaled quantum chemical studies of the structure and vibrational	23rd International Conference on Raman Spectroscopy, Bangalore,

	Sajan	spectra of 2-Hydroxy-4-	India - ICORS 2012, 12–17August
	Sujun	Methoxybenzophenone	2012
51	D. Sajan	DFT-based molecular modeling, NBO analysis and vibrational spectroscopic study of 3- (bromoacetyl)coumarin	Turkish Physical Society 28th International Physics Conference, Bodrum-Turkey, 6- 9 September 2011
52	D.Sajan, Lynnette Joseph	Density functional study on the structural conformations and intramolecular charge transfer from the vibrational spectra of 1-(4-aminophenyl) 3-(3, 4-dimethoxyphenyl)-2-propen-1-one	XXII International Conference on Raman Spectroscopy (ICORS- 2010), Boston, Massachusetts, USA, 08 – 13 August 2010
53	Thomas Kuruvilla, D.Sajan	Nonlinear Time series analysis of Indian Regional Monthly Surface Air Temperature and Rainfall data during the period 1901 to 2000	International Conference on Impact of Climate Change on Food Security, Mavelikara (2011)
54	Thomas Kuruvilla	Recent advances in Teleportation with Photons	Annual Photonics Workshop, CUSAT, Cochin (2010)
55	Jerin Susan John, D. Sajan	Vibrational spectroscopic studies of non- linear optical material N,N' dimethyl urea ninhydrin	National Laser Symposium, Manipal University – NLS-22, 8- 11 January 2014
56	Lynnette Joseph, D. Sajan	Intramolecular charge transfer from the vibrational spectra of 1-(4-Aminophenyl)-dimethoxyphenyl)-prop-2-en-1-one	97th Indian Science Congress,Thiruvananthapuram(20 10)
57	Lynnette Joseph, D. Sajan	DFT calculations of Structure and Vibrational Spectra of 1-(4-Aminophenyl)-3-(3,4-dimethoxyphenyl)-prop-2-en-1-one	Women's Christian College,Nagercoil(2010)
58	Lynnette Joseph, D. Sajan	Conformational stability, Natural Bond Orbital analysis and the spectroscopic analysis of 1- (4-Aminophenyl)-3-(3, 4 — dimethoxyphenyl)-2-propen-1-one: a Density Functional Theoretical approach	UGC sponsored National seminar on Current Trends in Materials Science CTMS- 2011 at Christian College Chengannur, 4-6 August 2011
59	Lynnette Joseph, D. Sajan	Vibrational Spectra and DensityFuntional Theoritical Calculations of 1,3-	National Conference on Recent Trends in Vibrational Spectroscopy at Bishop Moore College,

		bis(hydroxymethyl)benzimidazolin 2-one	Mavelikara, 26-27 August 2011
60	Jerin Susan John, D. Sajan	Characterization of Organic NLO Material Using Spectroscopic Techniques	Proceedings of 5th International Conference on Perspectives in Vibrational Spectroscopy, July 2014
61	Merin George, D. Sajan	Physico-chemical studies of the experimental and theoretical properties of organic nonlinear optical material 4-chloro-4'methoxy benzylideneaniline	UGC Sponsored National Seminar on "New Horizons in Spectroscopy" at St. John's College, Anchal, 15 – 16 October 2015
62	Merin George, D. Sajan	Vibrational Spectroscopic Investigations, Quantum Chemical Calculations and Non- linear optical studies of 4-Nitro aniline 4-amino benzoic acid	International Symposium on Photonic Applications and Nanomaterials ISPAN-2015, Thiruvananthapuram, 28 – 30 October 2015
63	Jils. V	Skeletal Adaption to Exercise	Proceedings of the Nation's Health Mobilizing Youth through Physical Literacy and Physical Education, 2014
64	Jils. V	Isolated and combined Effect of Pranayama and Suriya namaskar on Muscular Endurance	Proceedings of the International conference on Innovative Technology in Sports and Allied Sciences, 2012
65	Jils. V	Relationship of Resilience with Life satisfaction and Sensation seeking among Hockey players	Proceedings of the Twenty third National Conference of Sports Psychology, under the aegis of sports psychology association of India, 2013

3.2. Resource Mobilization for Research

3.2.1 What percentage of the total budget is earmarked for research? Give details of major heads of expenditure, financial allocation and actual utilization.

The researcher usually mobilizes his/her financial resources from UGC, CSIR, DST, and KSCSTE.

The major heads of expenditure are as follows:

Item	Source of Fund	Amount
		(Rs.)
Instruments		
UV-Vis Spectrophotometer, Fluorescence	DST-FIST	49,35,000
spectrometer, TG-DTA, Workstation computer		
FT-IR Spectrometer, Workstation Computer	DST – Fast Track	12,08,000
	Project	
Impedance Analyser, Low temp. Solution Bath,	CSIR – Major	8,00,000
Analytical Balance	Research Project	
Infrastructure		
Research Labs for housing instruments	Management, Alumni	3,00,000
	and Faculty	
Computer Lab for Add-on course, Research	UGC-COC and DST-	10,00,000
scholars, teachers, M.Sc. students	FIST	

3.2.2 Is there a provision in the institution to provide seed money to the faculty for research? If so, specify the amount disbursed and the percentage of the faculty that has availed the facility in the last four years?

Financial assistance is obtained through the recognised funding agencies and research institutions. The advance amounts sanctioned by these funding agencies are immediately disbursed to the concerned faculty, which serves as seed money for research.

3.2.3 What are the financial provisions made available to support student research projects by students?

PG students have availed funds for student research projects from KSCSTE with the supervising teacher as Principal Investigator.

Academic Year	No. of student projects Sanctioned by KSCSTE
2015-16	4
2014-15	1
2013-14	4



2012-13	2
2011-12	1

Sl. No	Name of Principal Investigator	Name of Student Investigator	Project Title	Sanction ed Amount in Rs.	Status
1.	Bessy Mary Philip	Reshmi Prasad (M.Sc. Chemistry)	Theoretical and spectral investigation of biologically active furocoumarinbergapten 26/SPS55/2015/KSCSTE	12000	Ongoing
2.	Lynnette Joseph	Athira S. (M.Sc. Physics)	Growth and characterization of semi organic nonlinear optical crystal: L-Histidinium perchlorate 49/SPS55/2015/KSCSTE	11000	Ongoing
3.	Dr. D.Sajan	Asmimol S. J. (M.Sc. Physics)	Green synthesis and characterization of silver nanoparticles using leaf extract of Ocimum sanctum 69/SPS-54/2015/KSCSTE dated 08-05-2015	13500	Ongoing
4.	Dr. D.Sajan	Rajasree R. (M.Sc. Physics)	Growth and characterization of novel semi organic nonlinear optical crystal: L-Histidinium dipicrate dihydrate 68/SPS-54/2015/KSCSTE dated 08-05-2015	13500	Ongoing
5.	Deepa Thomas	Anju Anand (M.Sc. Chemistry)	Chitosan coated calcium cross linked sodium alginate beads for the controlled delivery of rifampicin 25/SP55/2015/KSCSTEdated 20-10-2015	12000	Ongoing
6.	Dr. D.Sajan	Arya S. Unnithan (M.Sc. Physics)	Development and Structural Characterization of a novel ceramic oxide Sm ₂ MgTiO ₆ 02/SPS-51/2015/KSCSTE dated 15-03-	13500	Ongoing

7.	Dr. D.Sajan	Halys Marium (M.Sc. Physics)	Development and Structural Characterization of a novel ceramic oxide Y ₂ MgTiO ₆ 33/SPS-51/2015/KSCSTE dated 15-03- 2014	13500	Ongoing
8.	Merin George	Aswathy G. Sivan (M.Sc. Physics)	Synthesis and Characterization of Organic Nonlinear optical crystal: Urea ninhydrin monohydrate(03/SPS/2014/CSTE)	15000	Completed
9.	Jerin Susan John	Saranya A. J. (M.Sc. Physics)	Crystal Growth, Spectral, Dielectric Studies on Nonlinear Optical Single Crystal Vanilin (2014)	15000	Completed
10.	Deepa Thomas	Shaly Surendran (M.Sc Chemistry)	A novel method for the effective utilization of pineapple leaf waste for nano composite applications 61/SPS/2012/CSTE dated 01-09-2012	10000	Completed
11.	Jerin Susan John	Aswathy K. (M.Sc. Physics)	Z-scan Studies and Vibrational Spectroscopic Studies of N, N' dimethyl urea Ninhydrin (2012)	10000	Completed
12.	Merin George	Nithya S. (M.Sc. Physics)	Spectral and thermal analysis of chitosan (075/SRSSP/2011/CSTE)	10000	Completed
	Total Grants Generated				

3.2.4 How does the various Departments/units/staff of the institute interact in undertaking inter-disciplinary research? Cite examples of successful endeavors and challenges faced in organising interdisciplinary research.

- Departments of Physics, Chemistry, Botany and Biotechnology are making combined efforts to promote interdisciplinary research. Interdisciplinary research includes the following:
 - Preparation and characterisation of nanoparticles
 - Bioactivity of chemicals/extracts
 - Water quality testing

- ✓ Extraction of phytochemicals
- ✓ Plant species Identification
- ✓ Water analysis

Example: The preparation and characterisation of nanoparticles by natural and chemical methods is one of the interdisciplinary research areas of the College. Preparation of nano particles is done in both Physics and Chemistry labs. The characterization of the nano particles is done in Physics Department using FTIR. The nano-toxicity and bactericidal properties of the prepared molecules are characterised using the facilities available in the Department of Botany and Biotechnology.

- Inter/multidisciplinary research projects are done by PG students
- The Science Club, Nature Club and ENCON club organise programmes and seminars on interdisciplinary topics.

3.2.5. How does the institution ensure optimal use of various equipment and research facilities of the institution by its staff and students?

- The staff and students are permitted to use the facilities available in the College for the purpose of research.
- Central Instrumentation facility is provided for instruments procured under DST-FIST scheme (UV-Vis spectrophotometer, TGA/DTA, Fluorescence spectrometer)
- The research students are trained by experts to use the instruments and laboratory facilities like FT-IR spectrometer, Impedance Analyser and Workstation Computer, acquired under DST-SERB Fast Track scheme and CSIR Extramural projects.
- Library facilities (Central library and Department libraries) are utilized by all faculty, research scholars and students.
- Internet connectivity is made available to all staff, research scholars and students.

- The Departments of Physics and Chemistry provide research labs, reading rooms and e-learning rooms for research students.
- 3.2.6 Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facility? If yes give details.

The Departments of Physics and Chemistry are recognised as DST-FIST sponsored Departments.
7 1 Crore was sanctioned for developing research facilities in these Departments.

3.2.7 Enumerate the support provided to the faculty in securing research funds from various funding agencies, industry and other organisation. Provide details of ongoing and completed projects and grants received during the last four years.

	Major Projects	Minor Projects
Ongoing	3	11
Completed	3	18
Total Grants	₹ 74,81,297	39,93,400
Generated	14,01,291	39,93,400

Major Research Projects

Sl.	Name of the	Title of the project and	Amount	Funding	Status
No.	Investigator	duration	sanctioned in ₹	Agency	Status
1	Dr. D. Sajan	Growth, Optical studies and Vibrational Spectral Investigation of certain novel semi-organic NLO crystals for Laser applications (2015 – 2018)	13,48,160/-	KSCSTE	Ongoing
2	Dr. D. Sajan	Design, Structural-Property Relations for the Nonlinear Optical Response, Growth and Vibrational Spectral Investigations of some Aniline Derivatives (2014-2017)	24,96,000/-	DST- SERB Fast Track Young Scientist Project	Ongoing
3	Dr. D. Sajan	Screening, Selection, Growth	21,45,297/-	CSIR	Ongoing



		and Vibrational Spectral Investigations of Non- Linear Optical materials (2013-2016)			
4	Dr. K. Kurien Thomas	Effective vulcanization studies on natural/reclaimed rubber with a series of novel thioureas and thiazoles (2009-2012)	7,27,000/-	UGC	Completed
5	Dr. Sherely Annie Paul	Development of low density polyethylene/ cellulose microfibril composites (2009-2012)	3,65,000/-	UGC	Completed
6	Dr. Laly Jacob	Hydrography of kuttanad wetland ecosystem with special reference to pesticide pollution (2008-2011)	4,00,000/-	UGC	Completed
	Total Gran	74,81,457/-			

Minor Research Projects

Sl. No.	Name of the Investigator	Title of the project and duration	Amount sanctioned in ₹	Fundin g Agency	Status
1	Dr. Reeja Jose (Zoology)	A Comparative Assessment on the quality of Well and Pond Water in Mavelikara Taluk, Alappuzha District, Kerala (2015-17)	2,90,000/-	UGC	Ongoing
2	Dr. Deepthi G. R. (Zoology)	Biodiversity, Ecology and Conservation of Mangrove Ecosystem in Ayiramthengu Area, Kollam District, Kerala (2015-17)	2,90,000/-	UGC	Ongoing
3	Linda E. Jacob (Chemistry)	A novel Green synthesis of Silver Nanoparticles using <i>Tagetes erecta</i> flower and <i>Aloe vera</i> leaf extracts (2015-17)	1,50,000/-	UGC	Ongoing
4	Siji K. Mary (Chemistry)	Preparation And Characterisation of Chitin Nano Fibers/Starch	1,50,000/-	UGC	Ongoing



		composites (2015-17)			
5	Rekha Rose Koshy (Chemistry)	Environment Friendly Green plastics based on Soy Protein Isolate and castor oil (2015-17)	1,50,000/-	UGC	Ongoing
6	Divya S. (English)	Aporias of Memory: Narrative Reconstruction of Past in W.G. Sebald's Fictional World (2015-17)	2,00,000/-	UGC	Ongoing
7	Premjith M. R. (English)	The Metaphor of Subversion in the Writings of People's Movement in Niyamgiri and Kudamkulam with Special Emphasis on Blogs (2015-17)	1,22,000/-	UGC	Ongoing
8	Dr. Sajeeve V. P. (Commerce)	Financial Literacy and Investment Selection – A Case Study of Investors from Kerala (2015 – 17)	1,50,000/-	UGC	Ongoing
9	Ashish Varughese (Commerce)	Impact of Foreign Institutional Investment on Volatility and Return of Indian Stock Market (2015 – 17)	1,55,000/-	UGC	Ongoing
10	Deepa Thomas (Chemistry)	Preparation of Metal cross linked Alginic acid Beads as a carrier for poorly water soluble drugs (2014-16)	1,60,000/-	UGC	Completed
11	Abha K. (Chemistry)	Synthesis, characterisation and bioconjugation of rare earth complexes embedded silica nanoparticles (2013-15)	1,20,000/-	UGC	Completed
12	Merin George (Physics)	Growth, Vibrational Spectral Studies on Aniline Derivatives for NLO Applications (2013-2015)	1,65,000/-	UGC	Completed
13	Julie Thomas (English)	Once upon a time: Influence of Fairy Tales on Budding Writers (2013-15)	1,35,000/-	UGC	Ongoing
14	Bhagyalakshmi Mohan (English)	Women in M.T.Vasudevan Nair's Screenplays: A Historical Study (2013-15)	1,30,000/-	UGC	Ongoing
15	Anusha Das (English)	Know the Child, Know the Book- A Developmental Approach to Children's Literature (2013-15)	1,50,000/-	UGC	Completed
16	Dr. Asha Ramachandran (Botany)	Conservation strategies, Genotoxic studies and Phytochemical assay on Trichopus zeylanicus ssp. travancoricus Burkill ex Narayanan (2012-14)	2,00,000/-	UGC	Completed



17	Jerin Susan John (Physics)	Vibrational Spectroscopic Investigations And Third-Order Nonlinear Optical Studies of Certain Organic Molecules (2012-2014)	80,000/-	UGC	Completed
18	Dr. Anne Angeline Abraham (English)	Trajectories of the American and Indian Scenario: Culture in Nikki Giovanni and Chetan Bhagat (2012- 14)	1,30,000/-	UGC	Completed
19	Vidu Vijayan (English)	Street Strikes Ahead: Street as an Axis of Power in Aravind Adiga's The White Tiger (2012-14)	90,000/-	UGC	Completed
20	Dr. D. Sajan (Physics)	Growth and Vibrational Spectroscopic Investigations of Efficient - electron conjugated push pull Nonlinear Optical Chromophore (2011-2013)	1,44,400/-	UGC	Completed
21	Lynnette Joseph (Physics)	Synthesis and Vibrational Spectroscopic investigations of Biologically Active molecules- Chalcone derivatives (2011-2013)	55,000/-	UGC	Completed
22	Jessy Anu Philip	Preparation of starch nanocrystals			
	(Chemistry)	from various sources (2011-13)	1,00,000/-	UGC	Completed
23	Dr. Laly A. Pothan (Chemistry)	Biodegradable Soy Protein for potential applications (2011-13)	1,10,000/-	UGC	Completed
24	Giggy P. Koshy (English)	Mapping the Personal and the Political in Isabel Allende's <i>Spanish Conquestcoras</i> (2011-13)	87,000/-	UGC	Completed
25	Dr. Nair Anup Chandrashekharan (English)	Exploring the 'mindscape' of Indian Renaissance poets in the Context of the Colonial Encounter (2011-13)	1,30,000/-	UGC	Completed
26	Dr. Susamma Jacob (Mathematics)	Restricted Random Walk (2011-13)	1,50,000/-	UGC	Completed
27	Dr. Harichandran Achari (Malayalam)	Ramacharithathile Vrutham - A study (2011 – 13)	80,000/-	UGC	Completed
28	Chandy N. George (Physics)	Development and Characterization of Nanocrystalline Barium Titanate (BaTiO ₃) Ceramic Reinforced Polymer Composite (2008-2010)	50,000/-	UGC	Completed
29	George Mathew (Physics)	Development of New Complex Perovskite Ceramic Oxides-	50,000/-	UGC	Completed

	Sr ₂ LnTiO ₆ (Ln-Lanthanide) through Solid-state and Nanoparticle route for Microwave Resonator Applications		
	(2008-2010)		
Total (38,93,400		

3.3. Research Facilities

3.3.1. What are the research facilities available to the students and research scholars within the campus?

- Central Instrumentation facility is provided for instruments procured under DST-FIST scheme (UV-Vis spectrophotometer, TGA/DTA, Fluorescence spectrometer)
- The central library, research laboratories, internet connection, computer labs, elearning rooms and smart classrooms accelerate the pace of research activities within the campus.
- Science Departments of the College have their own research laboratories. The research facilities available in the various Departments are:
 - ✓ Department of Botany and Biotechnology: Laminar Air Flow, Incubator, Hot air oven, Autoclave, Double and Single distillation units, Weighing balances -Monopan and digital balance, Water bath, Culture storage facilities, PH meter, Vertical and Horizontal Electrophoresis units, Centrifuges, UV transilluminator, Spectrophotometer, Colorimeter, Soxhlet apparatus, Microtomes, Camera Lucida, Micrometer, Shaking incubator, Research microscopes
 - ✓ **Department of Physics:** FT-IR Spectrophotometer, Work station computer, Solution Growth Apparatus, SR method for growing large size crystals, Magnetic stirrer with hot plate, Constant Deviation Spectrometer, Michelson Interferometer, CROs, Function Generators, Strong Electromagnet, Hall effect apparatus, Non Vibrating Honey Comb Optical Table, He-Ne Laser, Semiconductor Laser, Optical Communications kit,



Low temperature furnace, Impedance analyzer, Gaussian Software, Muffle furnace, Geiger Muller counter, Centre for Nonlinear studies - A separate space for Theoretical Physics research

- **Department** of **Chemistry:** Rotary Vacuum Evaporator, Mini Nephelometer, Photofluorimeter, Vacuum Oven, spectrophotometer, Electric oven, Electronic Balance, pH meter, Magnetic stirrer, Microwave oven, Temperature controlled water bath, UV/Visible Spectrophotometer (Double beam) 2006, Autoclave, Flame photometer, Brabendermixer, Injection moulding machine. Sonicator, Centrifuging machine, Distillation unit
- ✓ Department of Zoology: Phase Contrast Microscope, Binocular Microscope, Research Microscope, Compound Microscope, Dissection Microscope, Digital Photocolorimeter, Digital pH meter, Water Analyser, Electronic Balance, Hot air oven, Centrifuge, Autoclave, Water Bath, Distillation units, Microtome, Electrophoresis unit, Micrometer, Micropipettes, Chromatographic Chamber, Haemoglobinometer, Haemocytometer, RBC counting chamber, ESR unit.

3.3.2. What are the institutional strategies for planning, upgrading and creating infrastructural facilities to meet the needs of researchers especially in the new and emerging areas of research?

A Research Committee is constituted in the College for planning and implementation of research activities.

The Research Committee encourages the faculty to submit proposals for minor and major projects from funding agencies like UGC, CSIR, DST-SERB and KSCSTE which will in turn be beneficial for both infrastructure and research.

The Departments are equipped with infrastructure facilities and instruments needed for basic research. Departments of Physics and Chemistry are supported by "Fund for Improvement of Science and Technology Infrastructure in Higher

Educational Institutions" (FIST). FIST has sanctioned 1 Crore to the institution for the development of infrastructure and to procure instruments.

- 3.3.3.Has the institution received any special grants or finances from the industry or other beneficiary agency for developing research facilities? If 'yes', what are the instruments/ facilities created during the last four years?
 - Yes, The Departments of Physics and Chemistry are recognised as DST-FIST sponsored Departments.

 1 Crore was sanctioned for developing research facilities in these Departments.
 - Instruments/facilities created during the last four years:

 The Computer and Networking centre set up with the aid of UGC- COC and DST-FIST.
 - ✓ Instruments: FT-IR Spectrophotometer, UV-VIS Spectrometer, Fluorescence spectrometer, Work station computer, Sonicator, TG-DTA.
 - ✓ The e-learning room of the Department of Physics.
- 3.3.4. What are the research facilities made available to the students and research scholars outside the campus / other research laboratories?
 - Students and research scholars avail the research facilities of the following reputed institutions for the progress of research and project works:
 - ✓ Raman Research Institute, Bangalore
 - ✓ Indian Institute of Science, Bangalore
 - ✓ Kudankulam Nuclear Power Plant, Tamil Nadu
 - ✓ English and Foreign Languages University, Hyderabad
 - ✓ Osmania University Centre for International Programmes, Hyderabad
 - ✓ Vikram Sarabhai Space Centre, Thumba
 - ✓ Mahatma Gandhi University, Kottayam
 - ✓ Cochin University of Science and Technology, Cochin

- ✓ National Institute for Interdisciplinary Science and Technology,
 Thiruvananthapuram
- ✓ University of Kerala, Thiruvananthapuram
- ✓ Metereological Department of India, Thiruvananthapuram
- ✓ Kerala University Library, Palayam, Thiruvananthapuram.
- ✓ Rajiv Gandhi Centre for Biotechnology, Thiruvananthapuram
- ✓ Kerala Minerals and Metals Limited, Chavara
- ✓ Kerala Forest Research Institute KFRI Sub centre, Nilambur
- ✓ Indian Institute of Spice Research, Calicut
- ✓ M S Swaminathan Research Foundation, Wayanad
- ✓ Indian Rare Earth Limited, Chavara
- ✓ Jawaharlal Nehru Tropical Botanic Garden and Research Institute, Palode, Thiruvananthapuram
- ✓ University of Calicut, Calicut

3.3.5. Provide details on the library/ information resource centre or any other facilities available specifically for the researchers?

- The College has a well equipped library with a collection of 52000 titles.
- For researchers the library provides
 - ✓ INFLIBNET facility
 - ✓ Journals
 - ✓ Seminar proceedings
 - ✓ Magazines and reference texts
- Departments of Physics, Chemistry, Zoology and English provide reading space and computers with internet connectivity
- 3.3.6. What are the collaborative researches facilities developed / created by the research institutes in the College? For ex. Laboratories, library, instruments, computers, new technology etc.
 - The instruments and facilities procured under the DST-FIST scheme are common for the use of all researchers.

- The UGC-COC and DST-FIST sponsored Computer and networking centre can be accessed by researchers and students under the supervision of a faculty member of the Physics Department.
- There are collaborative research facilities developed by Research Departments in the College. Research laboratory for Science Departments is equipped with advanced instruments (mentioned in 3.3.1.) which can be used by all the researchers. Departments of Botany and Biotechnology, Physics and Chemistry are engaged in interdisciplinary research as detailed in section 3.2.4.

3.4 Research Publications and Awards

3.4.1. Highlight the major research achievements of the staff and students in terms of

Patents obtained and filed (process and product):

Dr. Laly A. Pothan (Department of Chemistry) and co-researchers got a national patent for the preparation of nanofibres:

Title: Process for synthesis of nanofibrilsof natural fibres by steam explosion.

Patent Number: IN200702267-I4

Inventors: Abraham E, Cherian B M, George C N, Pothan L A

Patent Assignee and Code: Bishop Moore College (BISH- Non-Standard)

Derwent Primary Accession Number: 2010- B44005 [11]

***** Original research contributing to product improvement:

- R. R. Koshy, S. K. Mary, and L. A. Pothan in 2015 carried out a research work on Environment friendly *green composites* based on soy protein isolate.
- B. Deepa, E. Abraham and L. A. Pothan of Chemistry Research Centre studied the utilization of various lignocellulosic biomass for the *production of nanocellulose* in 2015.
- E. Abraham, L. A. Pothan and S. Thomas in 2015 performed a study on nanocelluloses from jute fibers and their nanocomposites with natural rubber.



- L. A. Pothan in 2014 prepared and characterized *potato starch nanocrystal* reinforced natural rubber nanocomposites.
- R. Reshmy, K. Kurien Thomas developed a novel benzothiazoloylthazole binary system for *effective sulphur vulcanisation of natural rubber* in 2014.
- E. Abraham, B. Deepa, L. A. Pothan in 2013 developed an environmental friendly method for the *extraction of coir fibre and isolation of nanofibre*
- Lynnette Joseph and D. Sajan in 2013 synthesized and characterized a *highly efficient organic NLO crystal:* 1-(4-Aminophenyl)-3-(3,4-dimethoxyphenyl)-prop-2-en-1-one; A centrosymmetric NLO crystal was developed leading to improvement in photonic devices
- D. Sajan and co-researchers synthesized and characterized a new organic crystal:
 2-Carboxypyridin-1-ium trichloroacetate with potential applications in material science
- Sherely Annie Paul and co-researchers developed and characterized *low density* polyethylene/cellulose microfibril composites in 2012
- D. Sajan and co-researchers in 2012 studied and reported a facile hydrothermal route to *synthesize novel PbI2 nanorods*.
- E. Abraham, B. Deepa, L. A. Pothan carried out a research work on a novel approach to the extraction of nanocellulose fibrils from lignocellulosic fibres in 2011
- S. A. Paul and L. A. Pothan in 2010 prepared *polypropylene fiber/banana fiber composites* by novel commingling method, Improved method in preparation of polypropylene fiber/banana fiber composites
- Sherely Annie Paul and Laly A. Pothan performed the dynamic mechanical analysis of novel composites from *Commingled Polypropylene Fiber and Banana Fiber* in 2010
- Research studies or surveys benefiting the community or improving the services

- During 2014-2015, Arun P. S., a student of M.Sc. Botany, has undertaken a study on *Plant taxonomy and diversity of Mezhuveli Gramapanchayath, Pathanamthitta District*. This study has revealed the occurence of 415 species of plants belonging to 97 families. The report of this study was submitted to panchayath authorities as Biodiversity Register (PBR) at panchayath level.
- Jacob Chandy, Rajasree K. M and Laly Jacob in 2014 carried out a scientific study of *The Nutrient Status of Kuttanad Wetland Ecosystem*. The study benefitted the farmer community of Kuttanad and for selecting cultivation suitable to the nutrient level of Kuttanad wetland.
- Reeja Jose (2014) carried out a research work on the assessment of *pollution* status in river Achencovil. The study was beneficial to improve the health status of population near Achencoil river
- Department of Botany and Biotechnology, in 2014, performed an assessment of drinking water quality of well water from the Kallumala area of Thazhakkara, Grammapanchayath. This study has analyzed the coliform contamination of well water and documented the health status of inhabitants. Proper awareness was given to local people about the water born disease and different disinfection methods of well water.
- Jils V and Cigi P studied the Response of Children with Down Syndrome to selected yogic practices on kinesthetic sense in 2014. The study revealed that yogic practices improved the cognitive level of children with down syndrome
- J In 2013, Jacob Chandy., Rajasree. K. M. and Laly Jacob carried out a scientific study on the *Water Quality Assessment of Kottathodu, Mavelikara A Tributary of Achenkovil River*. The study was beneficial to health status of population near Kottathodu, Mavelikara
- Deepthi G. R. in 2013 studied the *Length-Weight Relationship and Length Class distribution of Fish Fauna in the Trawl By-Catch of Sakthikulangara and Neendakara Fishing Harbours, Kerala*. The study was beneficial to fishermen community near Shakthikulangara and Neendakara fishing harbour.

- Jils V. in 2013 studied the *Response of Pressure training on Speed, Agility and Reaction ability among Volleyball players*. Pressure training was found to have a positive effect on improving speed, agility and reaction ability among volley ball players
- The Response of children with Down Syndrome to physical activity programme on Motor Proficiency and Functional ability was studied by Jils V. in 2013. The study was beneficial for improving cognitive aspects of children with Down Syndrome
- The following studies and surveys have also benefitted the respective communities and/or improved the services:
 - ✓ Ongoing minor research project on "A Comparative Assessment on the quality of Well and Pond Water in Mavelikara Taluk, Alappuzha District, Kerala" by Dr. Reeja Jose, Department of Zoology.
 - ✓ Ongoing minor research project on "Biodiversity, Ecology and Conservation of Mangrove Ecosystem in Ayiramthengu Area, Kollam District, Kerala" by Dr. Deepthi G. R., Department of Zoology.

Research inputs contributing to new initiatives and social development:

- Mr. V. I. Johnson, Associate Professor of Malayalam, served as the Mavelikara area secretary, Alappuzha Jilla Purogamana Kala Sahitya Sangam which has actively involved in the organising of seminars and talks in the society
- Dr. Ranjith Mathew Abraham, Associate Professor of Economics, voluntarily served as the Best Practices Advisor to the IARF (International Association for Religious Freedom) which was involved in organising workshops in all the commercially sensitive areas of the country.
- Mr. K. D. Sudhakaran, Rtd. Associate Professor of Hindi, worked as the coordinator of the tribal "Misra Vivaha Sangam".
- 3.4.2 Does the Institute publish or partner in publication of research journal(s)? If 'yes', indicate the composition of the editorial board, publication policies and whether such publication is listed in any international database?

- The College does not publish or partner in the publication of research journals. However, the Proceedings of the following conferences and seminars organised by the College have been published:
 - ✓ National Conference on "Experimental and Theoretical Aspects of Photonic Materials" (ETAP-2016)
 - ✓ National Conference on "Materials Science and Technology" (MSAT-2015)
 - ✓ National Seminar on "21st Century English Classroom: Perspectives and Challenges" (2014)
 - ✓ International Conference on "Perspectives in Vibrational Spectroscopy" (ICOPVS-2013)
 - ✓ National Seminar on "Reading Literature in the Contemporary Critical Paradigm" (2013)
 - ✓ National Seminar on "Water Resource Management: Present uses, Status, Conservation and Co operation" (2013)
 - ✓ National Seminar on "Green Materials" (2013)
 - ✓ National Seminar on "Inclusive Growth and Indian Economy- Twenty Years of Liberalisation" (2013)
 - ✓ National Conference on "Recent trends in Molecular Biology" (RTMB-2012)
 - ✓ International Conference on "Molecular Spectroscopy of Advanced Materials and Biomolecules" (IMSAB 2012)
 - ✓ National Conference on "Recent Trends in Vibrational Spectroscopy" (RTVS-2011)
 - ✓ International Conference on "Climate Change and Food Security" (2011)

The convener(s) of the respective seminar/conference served as the editor(s) of the proceedings.

3.4.3 Give details of publications by the faculty and students:



Publication per faculty	3.23
Number of papers published by faculty and students in peer reviewed journals (national / international)	154
Number of publications listed in International Database (for Eg: Web of Science, Scopus, Humanities International Complete, Dare Database - International Social Sciences Directory, EBSCO host, etc.)	83

Publications per year

Year	No: of Publications in Peer	No: of Publications in Peer	Books/B Chapter contribu	Total	
	Reviewed International journals	Reviewed National journals	Interna tional	National	Total
2015	14	4	4	1	23
2014	10	6	2	2	20
2013	22	16	10	1	49
2012	19	9	2	1	31
2011	18	14	4	1	37
2010	11	11	1	1	24
Total	94	60	23	7	184

Publications in SCI Journals:

SI No	Author(s)	Title	Journal and year, Volume, pages	Publishers	Impact Factor	SJR	IPP	SNP	ISSN No
1	B. Deepa, E. Abraham, N. Cordeiro, M. Mozetic, A. P. Mathew, K. Oksman, M. Faria, S. Thomas, and L. A. Pothan	Utilization of various lignocellulosic biomass for the production of nanocellulose: a comparative study	Cellulose, vol. 22, no. 2, pp. 1075–1090, Jan. 2015.	Springer	3.573	0.95	3.424	1.318	0969-023
2	R. R. Koshy, S. K. Mary, S. Thomas, and L. A. Pothan	Environment friendly green composites based on soy protein isolate— A review	Food Hydrocoll., vol. 50, pp. 174–192, Aug. 2015.	Elsevier	4.090	2.004	4.658	2.450	0268-005X
3	M. G. Thomas, E. Abraham, P. Jyotishkumar, L. A. Pothan, H. J. Maria, and S. Thomas	Nanocelluloses from jute fibers and their nanocomposites with natural rubber: Preparation and	Int. J. Biol. Macromol., vol. Accepted M, Aug. 2015	Elsevier	2.858	0.786	2.931	1.255	0141-8130

		characterization							
4	C. I.a. M. C. Thamas D.	Adharian and Sunfara	Rev. Adhes.						
4	C. Jose, M. S. Thomas, B. Deepa, L. A. Pothan, and S. Thomas	Adhesion and Surface Issues in Biocomposites and Bionanocomposites	Adhes., vol. 2, no. 2, pp. 173–225, May 2014.	Scrivener		0.786	2.931		2168-0965
5	K. R. Rajisha, H. J. Maria, L. A. Pothan, Z. Ahmad, and S. Thomas	Preparation and characterization of potato starch nanocrystal reinforced natural rubber nanocomposites	Int. J. Biol. Macromol., vol. 67, pp. 147–53, Jun. 2014.	Elsevier	2.858	0.786	2.931	1.255	0141-8130
6	E. Abraham, B. Deepa, L. A. Pothan, J. Cintil, S. Thomas, M. J. John, R. Anandjiwala, and S. S. Narine	Environmental friendly method for the extraction of coir fibre and isolation of nanofibre	Carbohydr. Polym., vol. 92, no. 2, pp. 1477– 83, Feb. 2013	Elsevier	4.074	1.455	4.388	1.902	0144-8617
7	E. Abraham, M. S. Thomas, C. John, L. A. Pothan, O. Shoseyov, and S. Thomas	Green nanocomposites of natural rubber/nanocellulose: Membrane transport, rheological and thermal degradation characterisations	Ind. Crops Prod., vol. 51, pp. 415– 424, Nov. 2013	Elsevier	2.839	0.883	3.599	2.075	0926-6690
8	E. Abraham, B. Deepa, L. A. Pothan, M. Jacob, S. Thomas, U. Cvelbar, and R. Anandjiwala	Extraction of nanocellulose fibrils from lignocellulosic fibres: A novel approach,	Carbohydr. Polym., vol. 86, no. 4, pp. 1468– 1475, Oct. 2011	Elsevier	4.074	1.118	3.815	1.991	0144-8617
9	B. Deepa, E. Abraham, B. M. Cherian, A. Bismarck, J. J. Blaker, L. A. Pothan, A. L. Leao, S. F. de Souza, and M. Kottaisamy	Structure, morphology and thermal characteristics of banana nano fibers obtained by steam explosion	Bioresour. Technol., vol. 102, no. 2, pp. 1988–97, Jan. 2011	Elsevier	4.494	2.026	5.169	2.506	0960-8524
10	R. Reshmy, D. Sajan, K. Kurien Thomas, K.N. Rajasekharan, A.Sulekha, S.Selvanayagam and Ozgur Alver	Synthesis, growth and vibrational spectroscopic study of a novel coumarin-3-oylthiazole	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy Vol 97,(2012), pp. 1125-1132	Elsevier	2.353	0.595	2.386	1.166	1386-1425



11	L. Joseph,D. Sajan, R. Reshmy, S. Arun, Y. Erdogdu and K. Kurien Thomas	Vibrational spectra, structural conformations, scaled quantum chemical calculations and NBO analysis of 3-acetyl-7- methoxycoumarin	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy Vol. 99 ,(2012), ,pp. 234-247	Elsevier	2.353	0.595	2.386	1.166	1386-1425
12	R. Reshmy, K. Kurien Thomas and A.Sulekha	N-Benzoyl-N',N'- disubstituted thioureas - a new binary accelerator system and its effect of nucleophilicity in sulphur vulcanization of natural rubber	J. of Applied Polymer Science, Vol. 124, 978– 984 (201 2)	John Wiley and Sons (USA)	1.64	1.09	1.628	0.577	0021-8995
13	Sajan D, Erdogdu Y, Reshmy R, Dereli O, Kurien Thomas K, Hubert Joe I	DFT-based molecular modeling, NBO analysis and vibrational spectroscopic study of 3-(bromoacetyl) coumarin	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 82(1), November 2011, Pages 118-125	Elsevier	2.353	0.595	2.386	1.166	1386-1425
14	R. Reshmy, R. Nirmal, S. Prasanthkumar, Molice Thomas, T. Muraleedharan Nair, A. Sulekha and K. Kurien Thomas	Effect of benzothiazoloylthiazole s as secondary accelerators in the sulphur vulcanization of natural rubber	Rubber Chem. Technol. 84, 88-100, 2011	Rubber Division - American Chemical Society	0.438	0.492	906.0	1.367	0035-9475
15	P. Geetha, M.S. Latha, Saumya S. Pillai, B. Deepa, K. Santhosh Kumar, Mathew Koshy	Green Synthesis and Characterization of Alginate Nanoparticles and its Role as a Biosorbent for Cr(VI) Ions	Journal of Molecular Structure, Volu me 1105, January 2016, Pages 54- 60	Elsevier	1.602	0.405	1.571	0.810	0022-2860

16	P. Geetha, M.S. Latha, Saumya S Pillai, Mathew Koshy	Nanoalginate based biosorbent for the removal of lead ions from aqueous solutions: Equilibrium and kinetic studies	Ecotoxicology and Environmental Safety, Volume 122, December 2015, Pages 17- 23	Academic Press In	2.762	1.003	2.866	1.306	0147-6513
17	P. Geetha, M.S. Latha, Mathew Koshy	Biosorption of malachite green dye from aqueous solution by calcium alginate nanoparticles: Equilibrium study	Journal of Molecular Liquids, Volume 212, December 2015, Pages 723-730	Elsevier	2.515	0.595	2.154	1.104	0167-7322
18	Saumya S. Pillai, N. Girija, G. Prakash Williams and Mathew Koshy	Impact of organic manure on the phytoremediation potential of Vetiveria zizanioides in chromium-contaminated soil,	Chemistry and Ecology (2013) 29,3, 270–279	Taylor and Francis	1.047	0.41	1.05		0275-7540
19	Saumya S. Pillai, Manohar D. Mullassery, Noeline B. Fernandez, N Girija, P. Geetha, Mathew Koshy	Biosorption of Cr(VI) from aqueous solution by chemically modified potato starch: Equilibrium and kinetic studies, Ecotoxicology and Environmental Safety	Ecotoxicology and Environmental Safety (2013) 92, 199–205.	Academic Press In	2.762	1.003	2.866	1.306	0147-6513
20	Saumya S.Pillai, B. Deepa, Eldho Abraham, N Girija, P. Geetha, Laly Jacob, Mathew Koshy	Biosorption of Cd(II) from aqueous solution using xanthated nano banana cellulose: Equilibrium and kinetic studies	Ecotoxicology and Environmental Safety (2013) 98, 352-360	Academic Press In	2.762	1.003	2.866	1.306	0147-6513
21	Sherely Annie Paul, K. Joseph, G. Mathew, L. A. Pothan, and S. Thomas	Preparation of polypropylene fiber/banana fiber composites by novel commingling method	Polym. Compos., vol. 31, no. 5, pp. 816–824, 2010	John Wiley and Sons(USA)	1.632	0.57	1.62		1548-0569
22	Sherely Annie Paul, Christoph Sinturel, Kuruvilla Joseph, G.D. Gem Mathew, Laly A. Pothan, Sabu Thomas	Dynamic Mechanical Analysis of Novel Composites From Commingled Polypropylene Fiber	Polymer Engineering and Science, 50, 384 – 395, 2010	John Wiley and Sons(USA)	1.52	0.52	1.36		1548-2634



		and Banana Fiber							
23	Sherely Annie Paul, Charlie Oommen, Kuruvilla Joseph, Gem Mathew, Sabu Thomas	The Role of Interface Modification on Thermal Degradation and Crystallization Behavior of Composites from Commingled Polypropylene Fiber and Banana Fiber	Polymer Composites, 31, 6, 1113-1123, 2010	John Wiley and Sons(USA)	1.632	0.57	1.62		1548-0569
24	Sherly Annie Paul, Kuruvilla Joseph, Gem Mathew, Laly A Pothen, Sabu Thomas	Influence of polarity parameters on the mechanical properties of composites from polypropylene fiber and short banana fiber	Composites Part A 41, 10, 1380- 1387, 2010	Elsevier	3.071	1.550	3.564	2.518	1359-835X
25	Aswathy Joseph, G.L Praveen, K. Abha , G.M Lekha, Sony George	Photoluminescence study on amino functionalized dysprosium oxide–zinc oxide composite bifunctional nanoparticles	Journal of Luminescence, Volume 132, Issue 8, August 2012, Pages 1999-2004	Elsevier	2.719	0.770	2.6247	1.347	0022-2313
26	Manikantan Nair, Linda E Jacob , P.R.S Wariar, R.Jose	Stuctural and dielectric properties of nanocrystalline barium rare earth antimonates Ba ₂ RESbO ₆ (RE=La,Ho,Yb,Tm) Perovskites.	International Journal of Engineering science and innovative technology, Volume 10, 720-728 (2014),						2319-5967
27	A. S. Padmanabhan, Susam ma Jacob	Self avoiding walk trees and laces	Journal of Mathematical Chemistry February 2014, Volume 52, Issue 2, pp 627-645	Springer	1.145	0.368	1.106	0.767	0259-9791
28	Jerin Susan John, D. Sajan, T. Umadevi, K. Chaitanya, Pranitha Sankar, Reji Philip	Synthesis, crystal structure, vibrational spectral analysis and Z- scan studies of a new organic crystal N,N dimethylurea	Optical Materials, Volu me 48, October 2015, Pages 233-242	Elsevier	2.062	0.693	2.065	1.190	0925-3467

		ninhydrin: A scaled							
		quantum mechanical force field study							
29	S. Alen, D. Sajan , Lynnette Joseph , K. Chaitanya, Venkataraya Shettigar, V. Bena Jothy	Synthesis, growth, vibrational spectral investigations and structure–property relationship of an organic NLO crystal: 3,4-Dimethoxy chalcone	Chemical Physics Letters Volume 636, 1 September 2015, Pages 208–215	Elsevier	1.963	0.691	1.784	0.756	0009-2614
30	Alen S., D. Sajan , Job Sabu K., Tom Sundius, Chaitanya K., Frank Blockhuys, Bena Jothy V	Vibrational spectral analysis, electronic absorption and non- linear optical behavior of (E)-1-(2,4,6- trimethoxyphenyl)pent- 1-en-3-one	Vibrational Spectroscopy, V olume 79, July 2015, Pages 1- 10	Elsevier	2.003	0.491	1.998	1.173	0924-2031
31	V. Sasikala, D. Sajan, K. Job Sabu, T. Arumanayagam, P. Murugakoothan	Electronic structure, vibrational spectral and intervening orbital interaction studies of NLO material: Guanidium 4-nitrobenzoate	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, V olume 139, 15 March 2015, Pages 555-572	Elsevier	2.353	0.595	2.386	1.166	1386-1425
32	S. Alen, D. Sajan, T. Umadevi, Ivan N mec, M.S. Baburaj, V. Bena Jothy, B.H. Selin Joy	Twisted intramolecular charge transfer and its contribution to the NLO activity of Diglycine Picrate: A vibrational spectroscopic study	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, V olume 135, 25 January 2015, Pages 720-731	Elsevier	2.353	0.595	2.386	1.166	1386-1425
33	V. Sasikala, D. Sajan , N. Vijayan, K. Chaitanya, M.S. Babu Raj, B.H. Selin Joy	Growth, molecular structure, NBO analysis and vibrational spectral analysis of l-tartaric acid single crystal	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, V olume 123, 5 April	Elsevier	2.353	0.595	2.386	1.166	1386-1425

			2014, Pages 127-141						
34	Lynnette Joseph, D. Sajan, K. Chaitanya, Jayakumary Isac	Molecular conformational analysis, vibrational spectra and normal coordinate analysis of trans-1,2-bis(3,5-dimethoxy phenyl)-ethene based on density functional theory calculations	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, V olume 122, 25 March 2014, Pages 375-386	Elsevier	2.353	0.595	2.386	1.166	1386-1425
35	L. Joseph , B.S. Arunsasi, D. Sajan , V. Shettigar	Synthesis, crystal growth, thermal, electronic and vibrational spectral studies of 1-(4-Bromophenyl)-3-(3,4-dimethoxy-phenyl)prop-2-en-1-one: A density functional theory study	Journal of Molecular Structure, Volu me 1076, 5 November 2014, Pages 687-697	Elsevier	1.602	0.405	1.571	0.810	0022-2860
36	Lynnette Joseph, D. Sajan, K. Chaitanya, T. Suthan, N.P. Rajesh, Jayakumary Isac	Molecular structure, NBO analysis, electronic absorption and vibrational spectral analysis of 2-Hydroxy- 4- Methoxybenzophenone: Reassignment of fundamental modes	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, V olume 120, 24 February 2014, Pages 216-227	Elsevier	2.353	0.595	2.386	1.166	1386-1425
37	D.M. Suresh, M. Amalanathan, S. Sebastian, D. Sajan , I. Hubert Joe, V. Bena Jothy, Ivan Nemec	Vibrational spectral investigation and natural bond orbital analysis of pharmaceutical compound 7-Amino-2,4-dimethylquinolinium formate – DFT	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 115, November 2013, Pages 595-602	Elsevier	2.353	0.595	2.386	1.166	1386-1425

		approach							
38	S. Alen, D. Sajan , K. Job Sabu, K. Udaya Lakshmi, V. Veeraiah, K. Chaitanya and V. Bena Jothy	Studies on crystal growth, vibrational, dielectric, electronic, mechanical and thermal properties of new organic nonlinear optical crystal: 3-nitrocinnamic acid	Cryst Eng Comm, 15, 2013,,9176- 9188	Royal Society of Chemistry	4.034	1.043	3.790	1.091	1466-8033
39	S. Gowri, T. Uma Devi, D. Sajan , A. Chandramohan, N. Lawrence	Synthesis, growth and characterization of 2-carboxypyridinium hydrogen (2R,3R)-tartrate monohydrate: A new organic nonlinear optical crystal	Optik - International Journal for Light and Electron Optics, Volume 124, Issue 16, August 2013, Pages 2393-2396	Elsevier	0.677	0.717	0.316	0.670	0030-4026
40	S. Gowri, T. Uma Devi, D. Sajan , C. Surendra Dilip, A. Chandramohan, N. Lawrence	Crystal growth, spectral, optical and thermal properties of semiorganic nonlinear optical material: Picolinic acid hydrochloride	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 110, June 2013, Pages 28-35	Elsevier	2.353	0.595	2.386	1.166	1386-1425
41	D. Sajan , T. Uma Devi, K. Safakath, Reji Philip, Ivan N mec, M. Karabacak	Ultrafast optical nonlinearity, electronic absorption, vibrational spectra and solvent effect studies of ninhydrin	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 109, 15 May 2013, Pages 331-343	Elsevier	2.353	0.595	2.386	1.166	1386-1425
42	Lynnette Joseph, D. Sajan, K. Chaitanya, H.C. Devarajegowda, Jayakumary Isac	Density functional theory study, FT-IR and FT-Raman spectra and SQM force field calculation for vibrational analysis of 1, 3-Bis	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 114, October 2013,	Elsevier	2.353	0.595	2.386	1.166	1386-1425

		(hydroxymethyl) benzimidazolin-2-one	Pages 432-440						
43	S. Alen, D. Sajan , N. Vijayan, K. Chaitanya, Ivan N mec, V. Bena Jothy	Growth, electronic absorption and vibrational spectral analysis of semiorganic nonlinear optical material potassium acid phthalate: A scaled quantum mechanical force field study	Journal of Molecular Structure, Volume 1040, 22 May 2013, Pages 155-163	Elsevier	1.602	0.405	1.571	0.810	0022-2860
44	Lynnette Joseph, D. Sajan, Venkataraya Shettigar, K. Chaitanya, Neeraj Misra, Tom Sundius, I. N mec	Synthesis, crystal growth, thermal studies and scaled quantum chemical studies of structural and vibrational spectra of the highly efficient organic NLO crystal: 1-(4-Aminophenyl)-3-(3,4-dimethoxyphenyl)-prop-2-en-1-one	Materials Chemistry and Physics, Volume 141, Issue 1, 15 August 2013, Pages 248-262	Elsevier	2.503	0.818	2.455	1.279	0254-0584
45	D. Sajan , N. Vijayan, K. Safakath, Reji Philip, M. Karabacak	Multi-photon absorption effect and intra-molecular charge transfer of donor- acceptor chromophore ethyl p-amino benzoate	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 108, May 2013, Pages 197-210	Elsevier	2.353	0.595	2.386	1.166	1386-1425
46	D. Sajan , K. Chaitanya, K. Safakath, Reji Philip, T. Suthan, N.P. Rajesh	Three-photon absorption and vibrational spectroscopic study of 2-methylamino-5- chlorobenzophenone	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 106, April 2013, Pages 253-261	Elsevier	2.353	0.595	2.386	1.166	1386-1425
47	K. Kaviyarasu, D. Sajan , Prem Anand Devarajan	A rapid and versatile method for solvothermal synthesis of Sb2O3 nanocrystals	Applied Nanoscience, December 2013,	Springer					2190-5517

		under mild conditions	Volume 3, Issue 6, pp 529-533						
48	D.M. Suresh, M. Amalanathan, S. Sebastian, D. Sajan , I. Hubert Joe, V. Bena Jothy	Vibrational spectral investigation and Natural Bond Orbital analysis of anti- rheumatoid drug Ethyl 4-nitrophenylacetate – DFT approach	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 98, December 2012, Pages 413-422	Elsevier	2.353	0.595	2.386	1.166	1386-1425
49	K. Kaviyarasu, D. Sajan , M.S. Selvakumar, S. Augustine Thomas, D. Prem Anand	A facile hydrothermal route to synthesize novel PbI2 nanorods	Journal of Physics and Chemistry of Solids, Volume 73, Issue 11, November 2012, Pages 1396-1400	Elsevier	1.918	0.632	1.758	1.010	0022-3697
50	R. Reshmy, D. Sajan, K. Kurien Thomas, A. Sulekha, K.N. Rajasekharan, S. Selvanayagam, Ö. Alver	Synthesis, growth and vibrational spectroscopic study of a novel coumarinoylthiazole	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 97, November 2012, Pages 1125-1132	Elsevier	2.353	0.595	2.386	1.166	1386-1425
51	Lynnette Joseph, D. Sajan, R. Reshmy, B.S. Arun Sasi, Y. Erdogdu, K. Kurien Thomas	Vibrational spectra, structural conformations, scaled quantum chemical calculations and NBO analysis of 3-acetyl-7- methoxycoumarin	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 99, 15 December 2012, Pages 234-247	Elsevier	2.353	0.595	2.386	1.166	1386-1425
52	S. Gowri, T. Uma Devi, D. Sajan, S.R. Bheeter, N. Lawrence	Spectral, thermal and optical properties of adenosinium picrate: A nonlinear optical single crystal	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 89, April 2012,	Elsevier	2.353	0.595	2.386	1.166	1386-1425

			Pages 119-122						
53	S. Gowri, K. Anitha, A. Suresh, T. Uma Devi, S. Selvanayagam, D. Sajan , A. Chandramohan, N. Lawrence	Synthesis, growth, spectral and thermal properties of a new organic crystal: 2-Carboxypyridin-1-ium trichlo roacetate	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 95, September 2012, Pages 73- 79	Elsevier	2.353	0.595	2.386	1.166	1386-1425
54	Y. Erdogdu, Ö. Dereli, D. Sajan, L. Joseph, O. Unsalan and M. T. Gulluoglu	Vibrational (FT-IR and FT-Raman) spectral investigations of 7-aminoflavone with density functional theoretical simulations	Molecular Simulation Volume 38, Issue 4, April 2012, pages 315-325	Taylor and Francis	1.133	0.41	1.11	1.10	0892-7022
55	D. Sajan , N. Vijayan, K. Safakath, Reji Philip, and I. Hubert Joe	Intramolecular charge transfer and Z-scan studies of a semiorganic nonlinear optical material sodium acid phthalate hemihydrate: A vibrational spectroscopic study	Journal of Physical Chemistry A 115 (29),2011, pp. 8216-8226	American Chemical Society	2.693	1.039	2.625	1.042	
56	T. Suthan, N.P. Rajesh, C.K. Mahadevan, D. Sajan , G. Bhagavannarayana	Growth and characterization of organic material 2-hydroxypyridine single crystal by modified vertical Bridgman technique	Materials Chemistry and Physics, Volume 130, Issue 3, 1 November 2011, Pages 915-920	Elsevier	2.503	0.818	2.455	1.279	0254-0584
57	D. Sajan , K. Udaya Lakshmi, Y. Erdogdu, I. Hubert Joe	Molecular structure and vibrational spectra of 2,6-bis(benzylidene)cycloh exanone: A density functional theoretical study	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 78, Issue 1, January 2011, Pages	Elsevier	2.353	0.595	2.386	1.166	1386-1425

			113-121						
58	C. Jesintha John, M. Amalanathan, D. Sajan , K. Udaya Lakshmi, I. Hubert Joe	Intramolecular charge delocalization and nonlinear optical properties of push–pull chromophore 1-(4-N,N-dimethylaminopyridini um) acetic acid bromide monohydrate from vibrational spectra	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 78, Issue 1, January 2011, Pages 264-272	Elsevier	2.353	0.595	2.386	1.166	1386-1425
59	D. Sajan , Y. Erdogdu, R. Reshmy, Ö. Dereli, K. Kurien Thomas, I. Hubert Joe	DFT-based molecular modeling, NBO analysis and vibrational spectroscopic study of 3- (bromoacetyl)coumarin	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 82, Issue 1, November 2011, Pages 118-125	Elsevier	2.353	0.595	2.386	1.166	1386-1425
60	D. Sajan, Lynnette Joseph , N. Vijayan, M. Karabacak	Natural bond orbital analysis, electronic structure, non-linear properties and vibrational spectral analysis of l-histidinium bromide monohydrate: A density functional theory	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 81, Issue 1, 15 October 2011, Pages 85-98	Elsevier	2.353	0.595	2.386	1.166	1386-1425
61	S. Gowri, T. Uma Devi, D. Sajan, S.R. Bheeter, N. Lawrence	Spectral, thermal and optical properties of l-tryptophanium picrate: A nonlinear optical single crystal	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 81, Issue 1, 15 October 2011, Pages 257-260	Elsevier	2.353	0.595	2.386	1.166	1386-1425



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63	D. Sajan, Thomas Kuruvilla, K. P. Laladhas, I. Hubert Joe	Surface-enhanced Raman scattering and DFT theoretical studies on the adsorption behavior of plumbagin on silver nanoparticles	Indian Journal of Physics, March 2011, Volume 85, Issue 3, pp 477- 484	Springer	1.337	0.349	1.174	0.801	0252-9262
64	Y. Erdogdu, O. Unsalan, D. Sajan, M.T. Gulluoglu	Structural conformations and vibrational spectral study of chloroflavone with density functional theoretical simulations	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Volume 76, Issue 2, July 2010, Pages 130-136	Elsevier	2.353	0.595	2.386	1.166	1386-1425
65	D. Sajan , Y. Erdogdu, Thomas Kuruvilla , I. Hubert Joe	Vibrational spectra and first-order molecular hyperpolarizabilities of p-hydroxybenzaldehyde dimer	Journal of Molecular Structure, Volume 983, Issues 1–3, 1 November 2010, Pages 12- 21	Elsevier	2.353	0.595	2.386	1.166	1386-1425
66	D. Sajan , H.J. Ravindra, Neeraj Misra, I. Hubert Joe	Intramolecular charge transfer and hydrogen bonding interactions of nonlinear optical material N-benzoyl glycine: Vibrational spectral study	Vibrational Spectroscopy, Volume 54, Issue 1, 18 September 2010, Pages 72- 80	Elsevier	2.003	0.491	1.998	1.173	0924-2031
67	D. Sajan , V. Bena Jothy, Thomas Kuruvilla, I. Hubert Joe	NIR-FT Raman, FT-IR and surface-enhanced Raman scattering and DFT based theoretical studies on the adsorption behaviour of (S)-phenylsuccinic acid	Journal of Chemical Sciences, July 2010, Volume 122, Issue 4, pp 511-519	Springer	1.191	0.343	1.162	0.540	0974-3626

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68	D.Sajan,Lynnette Joseph I. Hubert Joe	Density functional study on the structural conformations and intramolecular charge transfer from the vibrational spectra of 1-(4-aminophenyl) 3-(3, 4-dimethoxyphenyl)-2-propen-1-one	AIP Conference Proceedings 1267(2010) 625-626	American Institute of Physics Publising	0.153	0.152	0.156	0.153	0094-243X
69	Aravind, A., Jayaraj, M.K., Kumar, M., Chandra, R.	Structural, optical and magnetic properties of Mn doped ZnO thin films prepared by pulsed laser deposition	Materials Science and Engineering B: Solid-State Materials for Advanced Technology 177 (13), pp. 1017- 1022	Elsevier BV	2.169	0.762	2.445	1.323	0921-5107
70	Aravind, A ., Jayaraj, M.K., Kumar, M., Chandra, R.	Structural, optical and magnetic properties of highly oriented transition metal (Mn/Co/Ni/Cu) doped ZnO thin films prepared by PLD	Research Society Symposium Proceedings 1454, pp. 239- 244	Materials Research Society	0.089	0.132	0.089	0.073	0272-9172
71	Aravind, A., Jayaraj, M.K., Kumar, M., Chandra, R.	Optical and magnetic properties of copper doped ZnO nanorods prepared by hydrothermal method	Materials Science: Materials in Electronics 24 (1), pp. 106- 112	Springer New York	1.569	0.547	1.971	1.023	0957-4522
72	James, K.K., Aravind, A. , Jayaraj, M.K.	Structural, optical and magnetic properties of Fe-doped barium stannate thin films grown by PLD	Applied Surface Science 282, pp. 121- 125	Elsevier	2.735	0.913	2.827	1.442	0169-4332



73	Aravind, A., Jayaraj, M.K., Kumar, M., Chandra, R.	The dependence of structural and optical properties of PLD grown ZnO films on ablation parameters	Applied Surface Science 286, pp. 54-60	Elsevier	2.735	0.913	2.827	1.442	0169-4332
74	Aneesh, P.M., Shijeesh, M.R., Aravind, A. , Jayaraj, M.K.	Highly luminescent undoped and Mn-doped ZnS nanoparticles by liquid phase pulsed laser ablation	Applied Physics A: Materials Science and Processing 116 (3), pp. 1085- 1089	Springer Heidelberg	1.704	0.582	1.600	0.940	0947-8396
75	Aravind, A., Hasna, K., Jayaraj, M.K., Kumar, M., Chandra, R.	Magnetic and Raman scattering studies of Co-doped ZnO thin films grown by pulsed laser deposition	Applied Physics A: Materials Science and Processing 115 (3), pp. 843-849	Springer Heidelberg	1.704	0.582	1.600	0.940	0947-8396
76	Jisha, S ., Padmaja, G.	Whey Protein Concentrate Fortified Baked Goods from Cassava-Based Composite Flours: Nutritional and Functional Properties	Food and Bioprocess Technology,Vol ume 4, Issue 1, 2011, Pages 92- 101	Springer New York	2.691	1.299	2.994	1.665	
77	Jisha, S. , Sheriff, J.T., Padmaja, G.	Nutritional, functional and physical properties of extrudates from blends of cassava flour with cereal and legume flours	International Journal of Food Properties, Volume 13, Issue 5, September 2010, Pages 1002-1011	Springer New York	0.915	0.041	1.155	1.096	1094-2912
78	Jisha, S., Padmaja, G., Sajeev, M.S.	Nutritional and textural studies on dietary fiber- enriched muffins and biscuits from cassava- based composite flours	Journal of Food Quality,Volume 33, Issue SUPPL. 1, September 2010, Pages 79- 99	Wiley-Blackwell	0.838	0.420	0.913	0.610	0146-9428
79	G. Reshmi, S.S. Vinod Chandra, V. Janki Mohan Babu, P.S. Saneesh Babu, W.S. Santhi, Surya Ramachandran, S.	Identification and analysis of novel microRNAs from fragile sites of human cervical cancer:	Genomics, Volume 97, Issue 6, June 2011, Pages	Academic Press Inc	2.847	1.457	2.698	0.8927	0888-7543

	Lakshmi, Achuthsankar S. Nair, M. Radhakrishna Pillai	Computational and experimental approach	333-340						
80	G. Reshmi, Ramachandran Surya, V.T. Jissa, P.S. Saneesh Babu, N.R. Preethi, W.S. Santhi , P.G. Jayaprakash, M. Radhakrishna Pillai	C-T variant in a miRNA target site of BCL2 is associated with increased risk of human papilloma virus related cervical cancer-An in silico approach	Genomics, Volume 98, Issue 3, September 2011, Pages 189-193	Academic Press Inc	2.847	1.457	2.698	0.8927	0888-7543
81	W.S. Santhi, R. Prathibha, Sona Charles, K.G. Anurup, G. Reshmi, Surya Ramachandran, V.T. Jissa, Paul Sebastian, M. Radhakrishna Pillai	Document Oncogenic microRNAs as biomarkers of oral tumorigenesis and minimal residual disease	Oral Oncology, Volume 49, Issue 6, 2013, Pages 567-575	Elsevier	3.6902	1.275	3.300	1.371	1368-8375
82	Varghese. G, Jose.M., Dinesh Raj.R , Bocianowski.J, Thomas.G,Omanakumari. N	Quantitative and molecular analyses reveal a deep genetic divergence between the ancient medicinal rice (Oryza sativa) Njavara and syntopic traditional cultivars	Annals of Applied Biology Volume 164, Issue 1, January 2014, Pages 95- 106	Wiley-Blackwell	2.0	0.740	1.975	1.183	0003-4746
83	Vadakkemuriyil Divya Nair , Rajan Pillai Dinesh Raj , Rajaram Panneerselvam, Ragupathi Gopi	Assessment of diversity among populations of Rauvolfia serpentina Benth. Ex. Kurtz. from Southern Western Ghats of India, based on chemical profiling, horticultural traits and RAPD analysis	Fitoterapia Volume 92, Issue 1, 2013, Pages 46-60	Elsevier	2.466	0.816	2.611	1.493	0367-326X



Details of H – index and citations

Sl. No.	Faculty Name	No.of Publications in Science Citation Index Journals (SCI)	h-index	Total No of Citations	Author ID (Scopus)
1	Chandy N George	9	6	126	21742425100
2	Thomas Kuruvilla	7	7	57	6603964161
3	Lynnette Joseph	11	3	56	36666564900
4	Jerin Susan John	1	0	0	56799902800
5	Arun Aravind	11	4	63	23099317700
6	D.Sajan	73	14	953	8987090900
7	Susamma Jacob	1	0	0	55914413500
8	Mathew Koshy	13	5	64	7005340566
9	Kurien Thomas K	5	1	18	52063511800
10	Laly A. Pothan	54	17	1424	6602340316
11	Sherely Annie Paul	7	5	72	23006109900
12	Siji K Mary	3	1	1	55892621100
13	Rekha Rose Koshy	3	1	1	56644412100
14	Abha K	2	1	7	55174956700
15	Laly Jacob	1	0	0	55826434500
16	Dinesh Raj R	3	2	13	36106955900
17	Brijith Lal, N. D.	1	0	0	56733062900
18	Prakash G Williams	8	4	73	37024554200
19	Jisha S	5	4	29	56598057300
20	Santhi W. S	6	5	82	8650275800

Publications in other Peer-Reviewed journals:

- 1. R. R. Koshy, S. K. Mary, S. Thomas, and L. A. Pothan, Environment friendly green composites based on soy protein isolate – A review, Food Hydrocoll., vol. 50, pp. 174–192, Aug. 2015.
- 2. Asha R. and J. E. Thoppil (2011) Genotoxic effect of the leaf extract of Eupatorium triplinerveVahl. (Asteraceae), Journal of Cytology and Genetics 12, 65-70
- 3. Brijithlal N.D., Bhagya M., G. Prakash Williams, In vitro antibacterial activity of high altitude bryophytes against Drug resistant bacterial pathogens. Int Journal of Pharma and Bio Sciences 2015 (In Press) ISSN 0975-6299

- 4. S. Krishnakumar, SinduDivakaran, G. Uma Shankar, **Prakash G. Williams** and M. Sasikumar. *Extracelluler biosynthesis of silver nanoparticles (Ag-NPs) using Fusariumoxysporium (MTCC-2480) and its antibacterial efficacy against gram negative human pathogens*, Journal of Chemical and Pharmaceutical Research, 2015, 7(1):62-67
- 5. **Williams GP,** Gnanadesigan M, Ravikumar S. Biosorption and bio-kinetic properties of solar salternhalobacterial strains for managing Zn²⁺, As²⁺ and Cd²⁺ ions. UGMB Geomicrobiology Journal, **2013**, 30, 497–500(IF: 2.017;Manuscript ID: 732663)
- 6. **Williams GP,** Gnanadesigan M, Ravikumar S. *Isolation, identification and metal tolerance of halobacteial strains* Indian journal of Geo Marine Science 42(3) 2013;402-408 Manuscript No.IJMS/MS 1086/11
- 7. **Williams GP,** Gnanadesigan M, Ravikumar S.*Biosorption and bio-kinetic studies of halobacterial strains against Ni²⁺, Al³⁺ and Hg²⁺ metal ions. Bioresource Technology 107 (2012) 526–529 Mar; 107:526-9. Doi: 10.1016/j.biortech.2011.12.054. Epub 2011 Dec 17.(IF: 4.9)*
- 8. Pillai, S., S. Girija, **P.G. Williams** and M. Koshy. *Impact of organic manure on the phytoremediation potential of Vetiveriazizanioides in chromium contaminated soil*. Chemistry and Ecology, 2012 p.1-10
- 9. **Raju, R.,** Thomas, R. P., Thomas, M., Kiran V.S. and Paul, J. *Antibacterial activities of some Indian tralatitious plant extracts*. International Journal of Research in Botany. Volume 4(1):6-8, 2014.
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- 12. **Laly Jacob**. 2010.Impact of 2,4-D on the haemotological parameters of channa striatus (Bloch) Indian Journal of Multidisciplinary Research .**Vol.6(2)**:201-206

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- 14. Bijukumar, A., **Deepthi, G.R.** and K.G. Padmakumaran Nair. 2013. *Proximate Composition of Fish In the Trawl By-Catch And Discards of Kerala*, South-West Coast Of India. J. Aquatic Biology and Fisheries Vol. 1(1 and 2): 106-116.
- 15. **Reeja Jose** and M.G. Sanal Kumar. 2014. *Assessment of pollution status in river Achencovil.* J. Aquatic Biology and Fisheries. Vol. 2(2): 544- 547.
- 16. **Reeja Jose** and M.G. Sanal Kumar. 2014. *Seasonal Variations in the Distribution of Cladocerans in River Achencovil*. Science Chronicle. Vol. 3(1 and 2): 1-7.
- 17. **Reeja Jose** and M.G. Sanal Kumar. 2014. *Diversity and Seasonal Fluctuation of Copepods in Achencovil River*. Science Chronicle. Vol. 3(1 and 2): 41-46.
- 18. **Reeja Jose** and M. G. Sanal Kumar. 2013. *Seasonal Abundance of Crustacean Zooplanktons in Achencovil River, Kerala, India*. International Journal of Scientific Research. 2(1): 3-5.
- 19. **Reeja Jose** and M. G. Sanal Kumar. 2012. *Seasonal Variations in the Zooplankton Diversity of River Achencovil*. International Journal of Scientific Research Publications. 2(11): 1-5.
- 20. **Reeja Jose,** M. G. Sanal Kumar and S. Nandakumar. 2012. *Diversity and distribution of aquatic insects in the river Achencovil during monsoon season in relation to water quality*. Edited by: A. Biju Kumar, M.P. Nayar, R.V. Varma and C.K. Peethambaran. Biodiversity and Taxonomy. Narendra Publishing House, New Delhi. pp. 239-249.
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- 23. Anne Angeline Abraham, A Poet's Response to Biodiversity: Nikki Giovanni an Ecocritical Reading in Religious Response to Ecological Challenges, ISBN 978-3-8465-5251-3.
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- 25. Suma Alexander, Matrices of Strategic Dominance: Past Present Continuum in William Dalrymple's Return of a King: The Battle for Afghanistan. IJPCL. Vol. 13, June 2013.
- 26. **Anusha Das**, *The Impact of Children's Literature in the Teaching of English to Young Learners* in the International Journal of English: Literature, Language and Skills (IJELLS) ISSN 2278-0742, Vol 2 ISSUE 1, APRIL 2013.
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- 28. **Bhagyalakshmi Mohan**, *The Politics of Representation: Reading Deshadanakkili Karayarilla and Sancharam as "Conventional Movies*".Indian Journal of Comparative Literature and Translation Studies.ISSN2321-8274.VOL 1 No 1 September 2013, pages(131-143)
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- 30. **P. K. Verghese**; Estimating Instability and Decomposition Analysis of Coconut Crop in Kerala, Holistic Thought, Multidisciplinary Biannual, Vol.XII, No.2, July-December-2013.
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- 32. **Abraham,Ranjith Mathew** and Michael Raj,M 2011, Agricultural Price Movements and Cropping Pattern Changes in Kerala- An Inter-Temporal Analysis, Agricultural Situation in India, Vol.LXVII, No.13, March, pp.713-717



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- 49. **Ashish Varughese**, Problems and Prospects of Backwater Tourism in Kerala with special reference to Alappuzha District Indian Journal of Marketing New Delhi. Vol.43 No. 4, April 2013. pp 18-29. (ISSN 0973 8703)
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- 2. Nair, Anup Chandrasekharan, R.K Narayan's The Guide as a Visual and Verbal Text: An Analysis in Comparison. Paradise Publisher's, Jaipur, 2010
- 3. Nair, Anup Chandrasekharan Etd., Religious Response to Ecological Challenges. ISBN 978-3-8465-5251-3, Lap Lambert Academic Publishing, Av Akademikerverlag GmbH and Co. K G Germany, 2012.
- 4. Rojimon P. T., Joby P., Sreekumar K. R., **Asha R**. and **Robert R.** (2014) *Florill- Flora on the Campus Hill*. Vidya Nikshepam, CMS College, Kottayam- 686 001. ISBN 978-81-925991-0-6

Books edited:

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- 2. A. Dufresne, S. Thomas, and **L. A. Pothan**, Eds., *Biopolymer nanocomposites:* processing, properties, and applications. John Wiley and Sons, Inc., 2013.
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- P. Balakrishnan, M. S. Thomas, L. A. Pothan, S. Thomas, and M. S. Sreekala, "Polymer Films for Packaging," in *Encyclopedia of Polymeric Nanomaterials*, S. Kobayashi and K. Müllen, Eds. Berlin, Heidelberg: Springer Berlin Heidelberg, 2014.
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- 8. **B. Deepa**, S. S. Pillai, **L. A. Pothan**, and S. Thomas, "Mechanical Properties of Cellulose-Based Bionanocomposites," in *Biopolymer Nanocomposites*, A. Dufresne, S. Thomas, and L. A. Pothen, Eds. Hoboken, NJ, USA: John Wiley and Sons, Inc., 2013.
- 9. B. M. Philip, **E. Abraham**, B. Deepa, **L. A. Pothan**, and S. Thomas, "Plant fiber-based composites," in *Green composites from natural resources*, V. K. Thakur, Ed. CRC Press, 2013.
- R. R. Koshy, L. A. Pothan, and S. Thomas, "Starch Based Bionanocomposite: Processing Techniques," in *Biopolymer Nanocomposites: Processing, Properties, and Applications*, A. Dufresne, S. Thomas, and L. A. Pothen, Eds. John Wiley and Sons, Inc., 2013, pp. 203–226.
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- 13. Thomas, D., and Thomas, S. (2013). "Chemical Modification of Chitosan and Its Biomedical Application" in Biopolymer Nanocomposites: Processing, Properties, and Applications, A. Dufresne, S. Thomas, and L. A. Pothan, Eds. John Wiley and Sons, Inc., 2013, pp. 33-51.
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- 15. M. S. Thomas, **L. A. Pothan**, and S. Thomas, "Mechanical Properties of Chitin Based Nanocomposites," in *Biopolymer Nanocomposites: Processing, Properties, and Applications*, A. Dufresne, S. Thomas, and L. A. Pothan, Eds. John Wiley and Sons, Inc., 2013, pp. 111–130.

- P. Sivasubramanian, L. A. Pothan, M. Thiruchitrambalam, and S. Thomas, "Hybrid Textile Polymer Composites," in *Polymer Composites: Volume 1*, Wiley, 2012, pp. 469–482.
- 17. S. Thomas, S. A. Paul, L. A. Pothan, and B. Deepa, "Natural Fibres: Structure, Properties and Applications," in *Cellulose Fibers: Bio- and Nano-Polymer Composites*, S. Kalia, B. S. Kaith, and I. Kaur, Eds. Berlin, Heidelberg: Springer Berlin Heidelberg, 2011, pp. 3–42.
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- 21. K. R. Rajisha, **B. Deepa**, **L. A. Pothan**, and S. Thomas, "Thermomechanical and Spectroscopic Characterisation of Natural Fibre Composite," in *Interface engineering of natural fibre composites for maximum performance*, N. E. Zafeiropoulos, Ed. Abington, UK: Woodhead Publishing Limited, 2011.
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3.4.4 Provide details (if any) of

- **Research** awards received by the faculty
- **Dr. Laly A. Pothan** received the **Vasudev Award** for the best research work among projects funded by Kerala State Council for Science, Technology and Environment (KSCSTE) in 2010.
- **Dr. D. Sajan** received the DST Young Scientist Award in 2013.
- * Recognition received by the faculty from reputed professional bodies and agencies, nationally and internationally
- Dr. Laly A Pothan of the Department of Chemistry received the title **Professor Emeritus** in 2013 and **Fellow of the Royal society of Chemistry** in 2011.
- Eight teachers were awarded PhD degree.
- **❖** Incentives given to faculty for receiving state, national and international recognitions for research contributions.

As an aided institution, the College offers service benefits and pay schemes strictly adhering to the rules and regulations of the Government of Kerala and the UGC. Salary increments stipulated by UGC guidelines are given to research degree holders, which is an encouragement to the faculty members to pursue research degrees.

3.5. Consultancy

3.5.1. Give details of the systems and strategies for establishing institute industry interface?

Students, researchers and faculty members engage in guided visits and interactions with professionals and scientists of many institutes, industries and business organisations across the country. The list of institutes and industries visited during the past five years is given in section 1.1.5.

- The faculty and students also attend conferences and training programmes organised by various institutions and Universities.
- Faculty members have memberships in professional bodies. This helps to establish contacts with professionals in the relevant fields.
- Departments regularly organise conferences, seminars and lectures which facilitates interface with various institutes and experts.
- The Career Guidance and Placement Cell conducts events integrating participation from interested companies. The companies that have visited the campus during the past four years include
 - ✓ Episource India Pvt Ltd (Biomedical Company)
 - ✓ HDFC Life (Life Insurance Company)
 - ✓ Tata Consultancy Services (I.T. Company)
-) Students have attended recruitment programmes of the following companies held at other campuses including
 - ✓ Wipro (I.T. Company)
 - ✓ Catholic Syrian Bank (Banking)
 - ✓ Federal Bank (Banking)
- KELTRON is running an Industry Institute Linkage Training Programme viz. "Professional Diploma in Network Engineering with Laptop Chip level technology" in the College campus.
- The Indian Science Academies (Indian National Science Academy (INSA), New Delhi, Indian Academy of Sciences, Bangalore, Indian National Academy of Sciences, Allahabad) have jointly organised the following programmes in the College:
 - ✓ Refresher Course in "Quantum Mechanics" (5-18 May 2014)
 - ✓ Lecture Workshop on "Nonlinear Dynamics and chaos" (21 -22 January 2015)
 - ✓ Lecture Workshop on "Spectroscopic Techniques and Applications" (11- 13 November 2015)
- 3.5.2. What is the stated policy of the institution to promote consultancy? How is the available expertise advocated and publicized?

- The faculty profiles are given in the College website so that students or faculty can make consultations.
- As part of consultancy, the faculty members serve as resource persons in conferences, seminars and lectures organised by other institutions.
- The faculty in charge of NCC, NSS and various clubs offer consultancy work extending working hours beyond the regular teaching hours.
- The NSS coordinators along with the volunteers render their valuable service by organising awareness programmes and socially useful productive activities in areas like sanitation, health and hygiene, blood donation and charity fund for the poor.
- ASAP, 21 days residential training and recruitment, is being conducted by the College every year since 2013.

3.5.3. How does the institution encourage the staff to utilize their expertise and available facilities for consultancy services?

The Institution makes every effort to encourage the staff for utilization of all human resources and available facility in the campus to promote consultation. The College promotes this by:

- Providing opportunity for the faculty to attend skill development programmes
- Publishing the profile of the faculty members in the College Website
- Encouraging the faculty members to take up consultancy services

3.5.4. List the broad areas and major consultancy services provided by the institution and the revenue generated during the last four years.

- 1. Dr. Sajeeve V. P., HoD of Commerce, is a SEBI certified financial trainer who conducts financial literacy classes for parents, teachers, nearby educational institutions and other organisations
- 2. Blood donation and blood group testing camps in the nearby villages by Medical Lab Technology students and Department of Zoology
- 3. Water quality testing carried out by the Department of Chemistry

- 4. Faculty members readily provide their consultancy service to the nearby schools in imparting basic science courses, computer skills, spoken English and Hindi.
- Income Tax Consultancy Service given to the general public under the auspices of Department of Commerce
- 6. Plant identification for P. G. and research students by the Department of Botany and Biotechnology
- 7. Soft skills training for women students conducted by the Women's Study Unit
- 8. Testing of antimicrobial activity by the Department of Botany and Biotechnology The Consultancy is provided by the College faculty without any fees and no revenue is generated from the same.
- 3.5.5 What is the policy of the institution in sharing the income generated through consultancy (staff involved: Institution) and its use for institutional development?

As stated in 3.5.4, the Consultancy is provided by the College faculty without any fees. So no revenue is generated.

3.6. Institutional Social Responsibility (ISR) and Extension Activities

3.6.1. How does the institution promote institution-neighborhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students?

The College organises different extension activities in and outside the campus to engage the students in different community oriented activities to develop a sense of social responsibility, service orientation and holistic development of the students. The College has an active NSS unit, an NCC male wing and an NCC female wing. Under the auspices of NSS, NCC, various clubs, Women's Study Unit, Department Associations, etc. different programmes are organised to promote institution-neighbourhood-community network and student engagement, contributing to good citizenship, service orientation and holistic development of students. Some of them are listed below.

Organisation	List of activities
NSS	 Blood donation camps Blood group identification camp Awareness programme by means of road shows Preparation of Vegetable gardens in schools Seed distribution to students to encourage them to have vegetable gardens in their homes Planting of tree saplings in the College campus and at certain locations in Mavelikara as part of Environment Day Celebrations Personality Development Class Under the banner of Harithaparisaram, a street play was scripted and composed by NSS volunteers of the College which was staged at various locations in and around Mavelikara Raised a fund of ₹50,000 for building home for a needy student
NCC	 Tree planting Visit to JYOTHIS – a home for the mentally challenged Blood Donation Camp Orphanage visit Cleaning of Mavelikara Railway station
Nature Club	 Workshop on "Common Bird Monitoring Programme" Three day Global Hand Washing day celebrations InterDepartment Quiz competition Inter-Collegiate Quiz competition World Wetland Day celebrations Water Day celebrations Wild Life Week Celebrations Bird watching Day Celebrations
Science club	 Interschool Science Quiz Competition and Inter collegiate PowerPoint presentation Competition as part of National Science Day Celebrations 2015 and 2016. Intercollegiate paper presentation competition, Interschool elocution competition for higher secondary students and interschool essay writing competition for high school students as part of National Science Day Celebrations 2014. Inter school science Quiz Competition 2013 Inter-Department Space quiz competitions 2013 and 2014 Lectures on Nobel prize winning topic in Science Poster preparation competition on the topic 'Mangalyaan'
Environmental	Camps on Environmental Awareness every year Construction of Eco Garden

40 040	
activities	Seminar on 'Environmental Conservation'
	Camps on Plastic free Campus
	Inter-Department Environmental poster competition
	Inter-Department Environmental Quiz competition
) Environmental study trips
	Seminar on "Environment and Western Ghats Conservation"
	Plastic free Mavelikara awareness class for school students
Sports club	organised Inter-Collegiate and Inter-Department volleyball championships
) Sports tour
	Fitness Awareness Programme
Debate club	Inter-Department and inter-personal debate competitions
Debute club) lines bepartment and lines personal debate competitions
Women's	Soft skills training for women students conducted
Study Unit	
G. I	
Student-) Ozone Day Celebrations:
Teacher	Inter-collegiate and Inter-department Power Point Presentation
Associations	Competitions, Talk on "Importance of Protecting the Ozone Layer"
) Outreach programme in schools :
	Documentary on the importance of protecting the Ozone layer, directed by
	final year Degree students, as well as a skit on the protection of Ozone
	layer shown in two schools by the Physics Association.
) Training Programme on 'Human rights of Women and Girl Child'
	organised by the Economics Association
) Issue of bookmarks of 10 tips to protect and conserve the environment to
	the nearby locality on the event of Gandhi Jayanthi, October 2 nd 2015, by
	the Economics Association to spread awareness to "Environmental
	Protection"
) Intercollegiate Public Speaking Competition and Paper Reading
	Competition organised by the Department of English.
) Starting a "Zero Balance Account" in 2012 at Catholic Syrian Bank,
	Mavelikara by the Economics Association to encourage thrift (Saving)
	attitude among the students, the students deposited an amount of \$\ 8000/
	The amount has been later utilized for the study tour purpose.
) Conduct of lecture series in schools for popularising science (importance
	of Chemistry in everyday life) and several other lectures and an exhibition
	sponsored by VSSC in connection with the celebration of International
	Year of Chemistry (IYC-2011) by Chemistry Association. Plastic free
	Mavelikara awareness class for school students organised by the Chemistry
	Association
	J Laurel Literaria: This annual literary extravaganza was instituted in the
	year 2003. It gives a platform to the students of the Department of English
	to delve into the world of literature and to showcase their talents. Major
	sponsored by VSSC in connection with the celebration of International Year of Chemistry (IYC-2011) by Chemistry Association. Plastic free Mavelikara awareness class for school students organised by the Chemistry Association Laurel Literaria: This annual literary extravaganza was instituted in the year 2003. It gives a platform to the students of the Department of English

	programmes conducted over the years include invited talks, dramatic performances, literary exhibitions, poetry visualizations, inter-collegiate contests like quiz, public- speaking, paper reading etc. Some of the notable dramas staged over the past few years include <i>The Fall of the House of Usher</i> (2011), <i>Doctor Faustus</i> (2012), <i>Oedipus Rex</i> and <i>Yayati</i> (2014). These plays directed by the renowned Kathakali artist, Sri. Madhu Varanasi, an alumnus of the Department, met with resounding success.
ASAP	 Under the ASAP Training Partner Scheme, the College provides 21 day residential training programme to students from the Colleges across the State and thus gives the Government a pool of Soft Skill Trainers. The College as an ASAP institution trains its first year undergraduate students in various job skills.

3.6.2. What is the Institutional mechanism to track students' involvement in various social movements / activities which promote citizenship roles?

The following clubs are functioning in the College to ensure student involvement in social activities:

- i. National Service Scheme (NSS)
- ii. National Cadet Corps (NCC)
- iii. Women's study unit
- iv. ENCON club
- v. Nature club
- vi. Bhoomithrasena

The College ensures the participation of students in atleast one of the above programmes. All Departments organise a number of programmes to motivate the students. They also celebrate days of national and international importance. Students are encouraged to participate in seminars/workshops and discussions which gives them exposure to societal problems and generates awareness regarding their roles and responsibilities in the society.

3.6.3. How does the institution solicit stakeholder perception on the overall performance and quality of the institution?

The institution solicits the stakeholder perception on the overall performance and quality of the institution mainly through interactions and feedbacks received from them. PTA



regularly meets and debates on various strategies to improve the academic environs of the College. Association of Retired Teachers (ART) and Alumni Association facilitate pooling in their perception thus bringing about grassroot reforms.

3.6.4. How does the institution plan and organise its extension and outreach programmes? Providing the budgetary details for last four years, list the major extension and outreach programmes and their impact on the overall development of students.

The College has two active NSS units, NCC male and female wings and other clubs for organising its extension activities and outreach programmes throughout the year. The NSS Programme Officer / NCC Officer / Coordinators of various clubs play an active role in organising the programmes. Programme schedule is circulated in the classroom in advance. The students are motivated to participate in such activities. A list of the same is given below:

Extension/outreach programme	Budgetary details	Impact on the overall development of students
Blood donation camp and AIDS Awareness Programme	NSS funds* (* 4000 funded by the Red Ribbon Club)	Makes the students aware of the importance of blood donation and the brings about AIDS awareness
Blood Group identification camp	NSS funds*	Creates a pool of students ready to donate blood in excigency.
Tree planting drive	NSS funds*	Encourages students to plant more trees
Awareness programme (anti drug campaign) by means of road shows	NSS (in collaboration with the Police Department)	Helps to make the students socially responsible citizens
Seminar on road safety	NSS funds*	Makes the students aware of road safety measures
Cancer Awareness Programme	NSS (in collaboration with District Health Community, Alappuzha)	Creates awareness on Cancer among students
Rain water harvesting	Management funds	Make the students understand the importance of water conservation
Camps on Environmental awareness	Bhoomithrasena #	Creates a sense of responsibility to conserve the environment among students



Seminar on 'Environmental	Bhoomithrasena #	Creates a sense of responsibility	
Conservation'	Diroomanascha	to conserve the environment	
Conscivation		among students	
		-	
Plastic free Mavelikara awareness	Department of Chemistry	Encourages school students to	
class for school students	(Department funds)	reduce the use of plastic	
		materials	
Training Programme on 'Human	Department of Economics	Makes the women students	
rights of Women and Girl Child'	(₹50,000/- sponsored by	aware of their rights	
	NHRC)		
Ozone Day Celebrations 2015	Department of Physics	The importance of protecting	
	(*20,000 Funded by	the ozone layer was	
	KSCSTE)	communicated to the students	
Ozone Day Celebrations 2014	Science Club and Physics	Our students as well as School	
	Department (\$\mathbb{C}\$. 20,000	and College students from	
	Funded by KSCSTE)	neighbouring areas could	
		understand deeper about our	
		role in protecting the ozone	
		layer	
ASAP – English language and	Department of English	Help students from our College	
leadership skill training for students	(*4,00,00/- per ASAP batch	as well as neighbouring	
	funded by the Kerala	Colleges to acquire better	
	Higher Education	language skills and soft skills	
	Department)		
Global Hand Washing day	Nature Club	Helped to create an awareness	
celebrations organised by the		about the importance of hand	
Nature Club		washing among students	
Science Day Celebrations	Science Club and	Helped the students to	
2016(Interschool Science Quiz	Department of Physics (\(\mathbb{T}\)	understand about the role of	
Competition and Inter collegiate	18,000 funded by	science in societal	
PowerPoint presentation	KSCSTE)	improvement.	
Competition)			
Science Day Celebrations 2015	Science Club and	Helped the students to	
(Interschool Science Quiz	Department of Physics (understand about the role of	
Competition and Inter collegiate	20,000 funded by	science in societal	
PowerPoint presentation	KSCSTE)	improvement.	
Competition)			
Science Day Celebrations 2014	Science Club and	Helped the students to	
(Intercollegiate paper presentation	Department of Physics (understand about the role of	
competition, Interschool elocution	20,000 funded by	science in societal	
competition for higher secondary	KSCSTE)	improvement.	
students and interschool essay			
writing competition for high school			
students)			

Intercollegiate Public Speaking Competition and Paper Reading Competition	Department of English (Department funds)	Improved the public speaking skill of students
"THANALEKIYAVARKU THANALAKAM" – Programme which honoured the aged people in Mavelikara	NSS funds*	Sensitised the students on the importance of geriatric care

^{(* 44,000} is allotted for the yearly NSS activities by the College

3.6.5. How does the institution promote the participation of students and faculty in extension activities including participation in NSS, NCC, YRC and other National/International agencies?

The College encourages participation of students in NSS and NCC by conducting orientation program at the beginning of each academic year. The achievements of NCC cadets and NSS volunteers, such as participation in International Youth Exhange Programmes, Republic Day Parade, etc., are felicitated by the College. The institution extends all necessary support by providing infrastructural facilities and financial assistance, when needed. NCC and NSS have adequately furnished offices, implements and notice boards to display posters, photographs, etc used to create a sense of social commitment among students. In addition, class-wise campaigns are undertaken by senior student volunteers and the faculty-in-charge.

Grace marks in examinations and special incentives are provided by the University for Participation in NSS and NCC. Special leave is granted by the College for participation in extension activities.

- 3.6.6. Give detail on social surveys, research or extension work (If any) undertaking by College to ensure social justice and empower students from underprivileged and vulnerable sections of society?
 - The institute has made a conscious effort to promote social justice as a value.
 - An Equal Opportunity Cell functions in the College to ensure that students from underprivileged and vulnerable sections of the society are cared for.
 - The Economics students have done projects such as:

^{# ₹10,000/-} per year is allotted from the Bhoomithrasena Office, Department of Environment and Climate Change, Government of Kerala Thiruvananthapuram for the activities of Bhoomithrasena scheme)



- ✓ "Programmes implemented for the upliftment of Scheduled Castes in Kollam District: A case study of Clappana"
- ✓ "Socio-economic problems of fishermen community: A case study in Alappatt Grama Panchayath"
- ✓ "Income consumption expenditure relationships of the APL and BPL households - A case study of Chennithala Thriperumthara Grama Panchayath"
- ✓ "Educated women unemployment in Kerala: A case study of Mavelikara Municipality"
- ✓ "A study on the performance of Kerala Minerals and Materials Ltd. with regard to its negative externalities"

3.6.7. Reflecting on objectives and expected outcomes of the extension activities organised by the institution, comment on how they implement student's academic learning experience and specified the values and skill inculcated.

Along with academic learning, students are encouraged to participate actively in the extension activities organised by the College. The NSS activities provide diversified opportunities to students to develop their personality through community service. These activities help to inculcate their awareness about social responsibilities. Discussions are regularly arranged in the College by the NSS unit to generate awareness among students regarding various social issues and challenges. Various community development programmes such as health awareness campaign, environmental awareness campaign are organised by the NSS. NCC develops qualities of character, courage, discipline, spirit and ideals of selfless service among the students and encourages the students to choose a career in the armed forces. The Science club activities generate scientific awareness, develop critical thinking and create scientific temper among the students. This process of learning is not only a desirable supplement to the students' academic learning, but develops a sense of responsibility, tolerance and cooperation among the students.

3.6.8. How does the institution ensure the involvement of the community in its reach out activities and contribute to the community development? Detail on the initiatives of the institution that encourage community participation in its activities

Some of the major initiatives undertaken by the NSS unit of the College involving community development are:

J	Premises of Mavelikara court being cleaned every year on Gandhi Jayanthi
J	Seed packets distributed to students and teachers
J	Fund of ₹50,000 raised for building home for a needy student
J	Around 500 food packets distributed to the poor and needy people in Ochira and
	Mavelikara
J	Books and reading materials distributed to the students of CMS LP School,
	Kallumala to improve their reading skills
J	NSS senior volunteer Pavithra V. Prabhu arranged a power point presentation for
	the kids of CMS LP School, Kallumala to make them aware of a plastic free
	nature
J	Awareness class on AIDS conducted by Dr. Brijithlal N.D.
J	₹ 5000/- collected and given to Vishnu, S4 Malayalam student of our College,
	who had met with an accident
J	NSS volunteers opened a food court during Arts day celebration and collected
	₹10000. The amount was handed over to an 18 year boy who was suffering from
	kidney failure and undergoing dialysis in Kottayam Medical College.
J	Blood Donation camp in association with Red Ribbon Club - 70 students donated
	blood.
J	Class on cyber crime was conducted.
J	Collected and donated ₹ 5000 to an orphanage in Mavelikara

3.6.9. Give details on the constructive relationships forged (if any) with other institutions of the locality for working on various outreach and extension activities

The NSS has organised an anti drug campaign by means of road shows in association with the Police Department of Mavelikara.

- Blood Group Identification and Blood Donation Camps were conducted in association with neighbouring hospitals. Distribution of plant saplings and seeds were done in the College campus by the Krishi Bhavan, Mavelikara. The NSS volunteers clean the premises of the Mayelikara Court, plant saplings and attend orientation sessions on legal awareness every year on Gandhi Jayanthi. The NSS had distributed books and reading materials to the students of CMS LP School, Kallumala to improve their reading skills. A Cancer Awareness Programme was conducted in the campus by District Health Community, Alappuzha A vegetable garden was prepared in the premises of Government UP School,
- 3.6.10. Give details of awards received by the institution for extension activities and/contributions to the social/community development during the last four years.

Kannamangalam

- The NSS units received the Indira Gandhi National NSS award (Certificate of appreciation) for the year 2012-2013.
- The College was awarded a "Certificate of Excellence" (four star) for the ASAP programme.
- The College has received appreciation from the local administration for conducting awareness programmes benefiting local community such as blood donation, environment conservation, protection of the ozone layer, anti-drug campaign etc.

3.7 Collaboration

3.7.1. How does the institution collaborate and interact with research laboratories, institutes and industry for research activities? Cite examples and benefits accrued of the initiatives - collaborative research, staff exchange, sharing facilities and equipment, research scholarships etc.?

The institution sends project proposals to other funding agencies and institutions for research projects. The major agencies which have sanctioned projects include UGC, CSIR, DST and KSCSTE.

- Department of Chemistry has research collaborative arrangements with:
 - ✓ Lulea University of Technology, Sweden
 - ✓ Agro Paris Tech, France
 - ✓ Hebrew University, Israel
 - ✓ Kalasalingam University, Tamil Nadu
 - ✓ Mahatma Gandhi University, Kottayam
- Department of Physics has collaborative arrangements with:
 - ✓ Department of Chemistry, University of Antwerp, Belgium
 - ✓ Department of Inorganic Chemistry, Charles University in Prague, Czech Republic
 - ✓ Department of Physics, University of Helsinki
 - ✓ Solid State Physics Division, Bhabha Atomic Research Centre, Mumbai
 - ✓ Department of Studies in Chemistry, Mangalore University
 - ✓ Optics Group, Raman Research Laboratory, Bangalore
 - ✓ Cochin University of Science and Technology, Cochin
- Some of the science faculty members get support to use the research laboratories of various University Departments. The faculty members also have research scholarships individually from different funding agencies.
- 3.7.2. Provide details on the MoUs/collaborative arrangements (if any) with institutions of national importance/other universities/ industries/Corporate (Corporate entities) etc. and how they have contributed to the development of the institution.

The Departments of Physics and Chemistry have collaborative arrangements with several institutions as listed in section 3.7.1.

3.7.3. Give details (if any) on the industry-institution-community interactions that have contributed to the establishment /creation/up-gradation of academic facilities,



student and staff support, infrastructure facilities of the institution viz. laboratories/library/new technology /placement services etc.

- The Departments of Physics and Chemistry have become DST-FIST sponsored in 2014 with a sponsorship for five years. The Ministry of Science and Technology, Government of India, has sanctioned the project for upgrading the standard of postgraduate teaching and research facilities through this project.
- The funds received from the major research projects have been utilised to develop the laboratory facilities for research.
- A Computer and Networking Centre was set up with the aid of UGC-COC and DST-FIST.
- 3.7.4. Highlighting the names of eminent scientists/participants who contributed to the events, provide details of national and international conferences organised by the College during the last four years.

Academic Year	No. of National/International Conferences/Seminars
2015-16	4
2014-15	2
2013-14	4
2012-13	5
2011-12	2

Sl No.	Title of the Seminar/Conference/ Workshop	Sponsori ng Agencies	Outstanding Participants / Resource persons	Income Generated
1	National Seminar on 'Human Rights Perspective on Development and Displacement' 22-23 Feb. 2016	UGC	Dr. J. Prahash (University of Kerala), Dr. S. P. Udhayakumar (Convener, PMANE), Dr. P. Sakthivel (Annamalai University)	1,20,000/-
2	National Workshop on "SPSS and Research Methodology"	UGC	Dr. Manju S. Nair (University of Kerala), Dr. Naidu (University College, Thiruvananthapuram)	50,000/-

			Dr. Reji Philip (Raman	
3	National Seminar on 'Experimental and Theoretical Approaches to Photonic Materials' 6-8 Jan. 2016	KSHEC KSCSTE	Research Institute, Bangalore) Dr. Karunakaran Venugopal, Dr. Sinoy Thomas (CSIR- NIIST) Dr. M. K. Jayaraj(CUSAT), Dr. P.M. Aneesh (Central University Kasargod)	95,000/-
4	National Seminar on 'Evolving Media in Post- Liberalisation India' 28-29 December 2015	UGC	Mr. Venkitesh Ramakrishnan (Senior Associate Editor, The Hindu/Frontline) Mr. Mohan Ramamoorthy (Asian College of Journalism, Chennai)	64,000/-
5	National Seminar on 'Malayala Vyakarana Padanam Vyathyastha Sameepenangal' 9-11 Dec, 2015	UGC	Dr. N. Sam (Rtd. Professor, Kerala University) Dr. A. N. Krishnan (Emeritus Fellow and Professor, Kerala Kalamandalam)	40,000/-
6	National Conference on "Materials Science and Technology" (MSAT-2015) 4-6 Feb 2015	DST- SERB, KSCSTE, BRNS, UGC	Dr. A. Ajayaghosh (Deputy Director and Outstanding Scientist, NIIST, Thiruvananthapuram) Dr. N. V. Unnikrishnan (Director, School of Applied Physics and Emeritus Professor, M.G. University, Kottayam) Dr. Madhu Thalakkulam (Scientist, IISER, Thiruvananthapuram)	3,20,000/-
7	National Seminar on '21 st Century English Classroom: Perspectives and Challenges', 23-24 Oct 2014.	UGC	Dr. P. Bhaskaran Nair, Dr. Binu Zachariah (Pondicherry Central University) Dr. Lal C.A. (Kerala University)	48,000/-
8	National training programme for girl students on "Human rights" Mar 2014	NHRD	Hon. Judge A. Badaruddin (Judicial Magistrate) Adv. Stephen J. Daniel (Bar Association President)	1,00,000/-
9	National Seminar on 'Recent Trends in General Chemistry' 16-17 Oct 2014	KSCSTE	Prof. M Padmanabhan (Vising Professor, IISER) Prof. Salahuddinkunju (University College, Thiruvananthapuram)	30,000/-
10	National Seminar on 'Reading Literature in the Contemporary Critical	UGC	Dr. P. P. Ravindran (M.G. <i>University</i>) Dr. Chithra Panicker	1,50,000/-



	Paradigm' 13 – 14 Aug 2013 International Conference on		(Bangalore University) Dr. Prayer Elmo Raj (Karunya University, Coimbatore) Dr. Cherian John (Mar Ivanios College, Thiruvananthapuram) Dr. Salahudin Kunju (University College, Thiruvananthapuram) Prof. James R. Durig (USA)	
11	Perspectives in Vibrational Spectroscopy (ICOPVS-2013), 6 – 9 Aug 2013	CSIR, BRNS, DST, KSCSTE	Prof. Petra Hellwig (France) Prof. Jun-ya-Kohno (Japan) Prof. Chandrabhas Narayana (JNCASR, Bangalore) Dr. RejiPhilip (RRL, Bangalore)	7,15,000/-
12	National Seminar on "Water Resource Management: Present uses, Status, Conservation and Co operation" 20 - 22 Mar 2013	UGC DST KSCSTE	Dr. A.V. George (Vice Chancellor, M.G. University) Dr. Oommen V. Oommen, (Director, Biodiversity Board, Govt. of Kerala) Dr. Arunachalam (M. S. University) Dr. K. V. Jayachandran (KUFOS) Dr. Bijoy Nandan (KUFOS) Dr. Susan J. Panicker (T.K.M. College of Engineering) Dr. Nandakumar (Director, CESS, Thiruvananthapuram)	2,13,000/-
13	National Seminar on 'Green Materials' 28 Feb – 2 Mar 2013	UGC KSCSTE	Prof. Sabu Thomas (MG university) Prof. Kuruvilla Joseph (HST)	3,05,000/-
14	National Conference on "Recent trends in Molecular Biology" (RTMB-2012) 12 – 14 December 2012	UGC KSCSTE	Dr. Latha P. G. (Director, JNTBGRI, Palode) Dr. N. Rajashekharan (IIHR, Bangalore) Dr. Joseph Rajkumar (CTCRI, Kayamkulam) Dr. N.S. Pradeep (JNTBGRI) Dr. Srinivas G. (SCTIMST) Dr. Priya Srinivas (RGCB) Dr. Asha S. Nair (RGCB)	2,00,000/-
15	UGC- Sponsored National Seminar on "Inclusive Growth and Indian Economy- Twenty Years of Liberalisation" 19 – 20 September 2012	UGC	Dr.S.Iyyampillai (Bharathidasan University) Dr. P.S.Mohanakumar (DC School of Management, Thiruvananthapuram) Dr.Manju.S.Nair (Unversity of Kerala)	1,50,000/-

16	International Conference on Molecular Spectroscopy of Advanced Materials and Biomolecules (IMSAB 2012), 7 – 9 August 2012	CSIR, BRNS, DST, DRDO, KSCSTE	Dr.A.K.Prasad (University of Kerala) Dr. Sylvia Turrell (France) Dr. Hartwig Schulz (Germany)	4,15,000/-
17	National Conference on "Recent Trends in Vibrational Spectroscopy" (RTVS-2011) 26 – 27 August 2011	BRNS DRDO KSCSTE	Dr. J. J. Kim (Korea) Dr. V.K. Rastogi (Meerut) Dr. I. Hubert Joe (Thiruvananthapuram)	2,15,000/-
International conference on "Impact of Climate Change on Food Security" 3 - 5 March 2011 International Managem ent Managem ent Managem ent Agency CIDA Bhushan (Ce		Dr.Najib Malik (Canadian International Development Agency CIDA) Sri.Chandra Bhushan (Centre for Science and Environment, New Delhi)		
Total Grants Generated			32,30,000/-	

3.7.5. How many of the linkages/collaborations have actually resulted in formal MoUs and agreements? List out the activities and beneficiaries and cite examples (if any) of the established linkages that enhanced and/or facilitated

The College has not signed in any formal MoUs, however it has linkages with institutions/organisations listed below:

Nature of Linkage	Organisation
Curriculum development/enrichment	University of Kerala (Affiliating University)
Internship/On-the-job training	J ASAP, Kerala State Higher EducationDepartmentJ KELTRON
Summer placement	Nil
Faculty exchange and professional	Indian Science Academies
Development	(Two workshops and one Refresher Course organised jointly by IASc, Bangalore, INSA,
	NewDelhi and NASI, Allahabad were hosted by the institution)
Research	 J Lulea University of Technology, Sweden J Agro Paris Tech, France J MG University, Kottayam J Solid State Physics Division, Bhabha Atomic Research Centre, Mumbai

	 Department of Studies in Chemistry, Mangalore University Cochin University of Science and Technology, Cochin Charles University in Prague, Czech Republic Optics Group, Raman Research Laboratory, Bangalore
Consultancy	Nil
Extension	J Bhoomithrasena Scheme of the Kerala GovernmentJ Red Ribbon Club, Government of India
Publication	List given in section 3.4.3
Student Placement	TCS, HDFC Life, EPISOURCE, Federal Bank, Catholic Syrian Bank
Twinning programmes	Nil
Introduction of new courses	 UGC sponsored Add on courses University of Kerala (M. Sc. Botany, B. Com. Computer Application)
Student exchange	Nil
Any other	Nil

3.7.6. Detail on the systemic efforts of the institution in planning, establishing and implementing the initiatives of the linkages/collaborations.

The College provides all support for research activities and establishment of collaborations. The Research Committee encourages faculty to engage in research activities. It provides all necessary assistance to establish collaborations with research centres and institutions. The College utilises the connection with its alumni and former faculty members working in other Universities and institutions in India and abroad as a means of establishing linkages.



CRITERION IV: INFRASTRUCTURE AND LEARNING RESOURCES

4.1 Physical Facilities

4.1.1 What is the policy of the Institution for creation and enhancement of infrastructure that facilitate effective teaching and learning?

During the last five years, the College has expanded the physical infrastructure as per the needs of its academic growth. With the increase in new academic courses, the College has undertaken several steps for the enhancement of infrastructure, including laboratory and library facilities. College has a formal Infrastructure Committee with sub committees (Hostel, Canteen, Library, and Book Stall) which work out the additional requirements of various academic units, and ensures that adequate physical infrastructure is in place for all courses being run as well as for the new courses being introduced.

The Governing Council, IQAC, Planning Board, Staff Council and Departments put forward necessary proposals for infrastructure development for meeting the needs of teaching and learning community. The institution utilises maximum funds from Alumni, PTA, Staff Members and various agencies like the UGC, DST, FIST and KSCSTE. The Management judiciously allocates funds for the development of all Departments.

4.1.2 Detail the facilities available for

a) Curricular and co-curricular activities – classrooms, technology enabled learning spaces, seminar halls, tutorial spaces, laboratories, botanical garden, animal house, specialized facilities and equipment for teaching, learning and research etc.

Facility	No.	Description	
Classrooms	38	Classrooms are spacious, well ventilated with natural light and has sufficient number of lights and fans.Adequate seating facilities are provided	
Staffrooms	17	Well furnished with toilet facility Computer with internet connectivity, printer and scanner	



		G.G. Delalia, Water
) Safe Drinking Water
Room for Emeritus Professor	1) Chemistry Research Centre
Technology Enabled Learning Spaces	13	Smart Class rooms 8 numbers Ceiling mounted LCD projector seating capacity: 40 Physics E-Learning Room Air conditioned 60 seats Ceiling mounted LCD projector and white board English Media Room 25 computers Audio Visual facility 50 seats B Com Computer Lab 40 seats Ceiling mounted LCD projector and white board
Seminar Halls	3	Seminar Hall Air conditioned 150 seats with Audio visual and LCD projection facilities Conference Hall in Counselling Centre Air conditioned 60 seats with Audio visual and LCD projection facilities Elizabeth Memorial Hall 75 seats with Audio visual and LCD projection facilities
Tutorial Space	Provided	Tutorial Sessions are conducted in classrooms, ICT enabled rooms or seminar hall depending on the strength of the group and topic for discussion
Laboratories	16	 Physics-03 Chemistry-04 Botany and Biotechnology-06 Zoology-02 English Media Room-01
Research labs		Research Departments supported by DST FIST for five years (Financial Support – 1Crore)

	4	Physics Research Centre
	•	Number of Labs: 3 (2 airconditioned)
		Sophisticated instruments FT-IR, UV Visible Spectrometer,
		Optoelectronics instruments, etc.
		Computational Lab with Work station computer (i7 processor) and
		Gaussian Software installed
		Chemistry Research Centre
		Number of Labs:1
		Rotary Vacuum Evaporator, Vacuum Oven, etc.
		Common Computer Centre
		J 22 Desktop Computers with 1 server, UPS facility, LAN, Internet
		Connectivity, Printer and Scanner
		Physics Computer and Networking Centre
	3	Air conditioned
Computer Labs		25 Desktop Computers and 1 server, LAN
		Two units of 5 KVA battery installed,100 sq.ft. UPS room
		Commerce Computer Lab
		J 16 Desktop Computers, LAN
		5 KVA battery
		Ceiling Mounted LCD projector
Green House		
and Herbarium	1	Collection of rare and endangered plants
and Herbarium		Full time gardener to take care of plants
Animal House	2	J Fish Culture
) Apiculture
		Zoology Museum
		Rare collection of exhibits including various species of stuffed
		animals, birds, skeletons, etc.
		Exhibited once every year for school children
Museum	2	Botany Museum
11200000	2	Contains preserved specimens (formalin/alcohol) of botanical
		importance. It includes marine and fresh water algae, microscopic and
		macroscopic fungi, rare collections of bryophytes, pteridophytes,
		gymnosperms, morphological and anatomical specimens of
		angiosperms.
	<u> </u>	
Othe	r Specialise	d facilities and equipment for teaching, learning and research
) One centralized Generator-6 MW power and 150 sq. ft generator
Power	3	room
generators		One Generator with Department of Physics
		One Generator with NSS



Reprographic facility	6	 Administrative Block-2 (one computer linked) Department of Physics-2 (one computer linked) Department of Economics - 1 Library-1 Accessible to staff and students at nominal charges 	
Public address	s system) covers all blocks	
Notice Boards	Sufficient numbers	 Common to all students and staff exhibited near Principal's Office, and Main Block Entrance Separate Notice Boards for all Departments 	
Complaints and Suggestion Box	2	J Periodically scrutinized and necessary actions taken	
CCTV	2	Principal's RoomAdministrative Block	
Book Binding Section	1	JUsed for binding student projects and for mending damaged library books	
LCD Projectors	13	J Utilised by teachers, students and various clubs in Teaching-learning	
Digital Camera	1	processes and extension programmes	

b) Extra -curricular activities - sports, outdoor and indoor games, gymnasium, auditorium, NSS, NCC, cultural activities, public speaking, communication skills development, yoga, health and hygiene etc.

Sports, Indoor and Outdoor games			
200m track	1	Training for students in various sports like basket ball, volley	
Football Court	1	ball, ball badminton, cricket, hockey, hand ball, base ball, soft ball, judo, wrestling, shuttle badminton, table tennis and	
Basket Ball Court	1	athletics. J Inter-Collegiate Competitions held	
Volley Ball Court	1	 One Associate Professor and One Assistant Professor in Physical Education Residential facility available for sports students Full-time sports coach appointed by the Kerala State Sports 	
Ball Badminton Court	1		
Shuttle Badminton	1	Council	

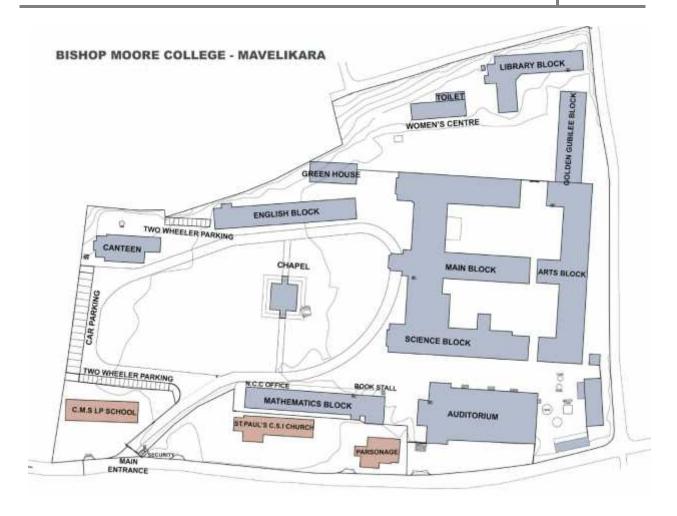
Court			
Dressing room for Lady NCC Cadets and girls	1		
Gymnasium	1		
	Facilities for other extra-curricular activities		
Auditorium	1	 Seating capacity -1000 Audio Visual facility Acoustics properly maintained Balcony Seating Auditorium stage equipped with light and sound arrangements 	
Open Air Stage	2 Awareness street plays, gatherings of students and other social agencies held		
Community Counselling Centre	J For Conferences and Retreats 1 Seating capacity - 60		
		National Service Scheme	
NSS Office Room	1		
Store Room			
Implements and Cooking Utensils	self suffici	For voluntary cleaning projects and residential camps of	
Amplifier and Mike System	self suffici	, ,	
Generator	1) Portable	
	National Cadet Corps		
NCC Office Room	1		
		Other Activities	
Public Speaking	 Community Counselling Centre, Seminar Hall, Auditorium used for Conferences, Seminars and invited Talks Open air stages 		

Communication Skills Development	Media RoomCommunity Counselling Centre provided for ASAP training
Yoga, Health and Hygiene	Chapel - for ensuring spiritual needs of students Sick rooms -Single bedded sick room attached to Department of Physical Education -Separate sick room with a lady care taker in women centre Yoga Sessions- Facilities at Women's Hostel utilized First aid facilities- available in the Physical Education Department Dust bins-in campus and classrooms Waste pits-for food waste disposal House- keeping staff – Appropriate number appointed by the Management; ensures cleanliness in the campus and toilets

4.1.3 How does the institution plan and ensure that the available infrastructure is in line with its academic growth and is optimally utilized? Give specific examples of the facilities developed/augmented and the amount spent during the last four years (Enclose the Master Plan of the Institution / campus and indicate the existing physical infrastructure and the future planned expansions if any).

The College authorities have ensured the expansion of infrastructural facilities according to the academic growth during the last five years.

- The infrastructural requirements as well as upgrading the existing facilities of each Department are discussed and listed in Department meetings.
- Committees of the Library, Research, Hostel, Book Stall, Canteen and Auditorium monitor the requirements of these units.
- Staff Council, IQAC and College Governing Council finally develop plans to ensure that the infrastructure is in line with its academic growth.
- The support of the PTA, Alumni and well-wishers, help in upgrading and building additional facilities on the campus. Financial support from UGC, DST-FIST, KSCSTE, etc. is also utilized for upgrading the infrastructure.



The various Committees of the College also serve in ensuring the optimal utilization of the available infrastructure by students as well as public.

- The Auditorium is made available to the public on payment and also free of cost.
- Stadium is given for public sports, games and tournaments.
- Audio-Visual equipment in the auditorium is given free of charge.
- Classrooms are used for conducting University and other Public Examinations
- College building is made available for camps.
- Classrooms are also made available for conducting NCC camps.
- Computer centre made available for various courses for students and public
- The facilities of the College are used for the conduct of Parliament and Assembly elections.



Infrastructure Facilities Upgraded during Last Five Years

Year of Completion	Infrastructure Development	Amount Spent in Rs.
	Increase in number of Computer Labs - B.Com and Physics	17,00,000
2017	Lights and Fans in all Classrooms	50,000
2015	Ramp with hand rail arrangement	1,00,000
	Increase in no. of E-Learning Rooms	4,00,000
	New Ladies Toilets	6,50,000
	Ceiling of Classrooms, Labs	1,00,000
	Tiling of Labs, Classrooms	2,00,000
	Chapel	24,00,000
	Installation of Centralized Generator	10,00,000
2014	Renovation of Departments	6,00,000
-	Jubilee Gate	3,00,000
	Research Lab for Physics with sophisticated instruments	2,00,000
	Parking Area	6,00,000
	Basket Ball Court	4,23,723
	Volley Ball Court	1,02,367
2013	New Women's Hostel	1.32 crore
2010	Implementation of M.Sc Botany Lab	2,00,000
	New Commerce Block	35,00,000
2012	Construction of New Gents Toilets	50,000

4.1.4 How does the institution ensure that the infrastructure facilities meet the requirements of students with physical disabilities?

J	Ramp with hand rail arrangement is provided in the campus.
J	Special facility is provided to differently abled students to write exams with the help of
	scribe.
J	Seats are provided to suit the convenience of differently-abled students in classrooms.
J	Separate toilet for physically challenged.
J	All classes of physically challenged students are arranged at ground floor.

4.1.5 Give details on the residential facility and various provisions available within them:

- Hostel Facility Accommodation available
- Recreational facilities, gymnasium, yoga center, etc.
- Computer facility including access to internet in hostel
- Facilities for medical emergencies
- Library facility in the hostels
- Internet and Wi-Fi facility
- Recreational facility-common room with audio-visual equipments
- Available residential facility for the staff and occupancy

Constant supply of safe drinking water:

• Security

Details of Residential facility:	available for students and teachers:
----------------------------------	--------------------------------------

J	Residential Facility available for the College Principal.
J	A furnished air conditioned guest room available in the Bishop Moore Community
	Counselling Centre.
J	Hostel facility available for women students and lady staff.



Details of Ladies Hostel

Accomodation available	 Total no. of rooms -55 No. of bath attached rooms -13 Total capacity-117 Bathrooms-16 Toilets-16 Dining hall-03 A cot, study table, chair and rack for each student
Recreational facilities	 J Indoor games- carroms, chess, etc. J Outdoor games-shuttle badminton, basket ball J Basket ball court J Reading room, TV J Open air Stage (Hostel day, Onam, Christmas celebrations) J Garden J Yoga sessions J Sewing machines J Audio visual room J Sports meet conducted once in a year
Computer facility	No. of computers-02Internet facility available
Medical emergency facility	First Aid facilitiesFull time vehicle with driver
Library facility	J Separate room with 300 books
Constant supply of safe drinking water) Water purifiers -02
Healthy environmental practices	 The College Hostel uses its waste for Bio-gas plant. Tree saplings are planted in the premises of the College Hostel Solar lantern provided
Staff and house keeping	 Resident Warden-1 Nonresident Warden-1 Kitchen Staff-3 Cleaning Staff-1 Gardener-1 Security Staff-1
Generators	Dower back up facility available

4.1.6 What are the provisions made available to students and staff in terms of health care on the campus and off the campus?

Health Care Facilities on the Campus:

- First Aid Kits are available in the Department of Physical Education.
- A Sick room with a bed and first aid facilities are available in the Department of Physical Education.
- A registered medical practitioner's clinic is functioning at a distance of 500 metres from the College. This is accessible to staff and students during working hours.
- A Sick room is available for girl students in the Women's Centre. A care-taker is appointed by the Management.

Health Care Facilities off the Campus:

- First Aid facilities available in the ladies hostel.
- In case of any medical emergencies, a full time Vehicle with driver is available at the hostel.
- 4.1.7 Give details of the Common Facilities available on the campus –spaces for special units like IQAC, Grievance Redressal unit, Women's Cell, Counselling and Career Guidance, Placement Unit, Health Centre, Canteen, recreational spaces for staff and students, safe drinking water facility, auditorium, etc.

Sl No.	Special Unit	Facilities Available	
1.	IQAC	Well-furnished room of 500sq. ft. available	
		Toilet attached	
		Women's Centre Building of approx. 2000 sq.ft.	
2	W 1 C 11	Recreation and sick room	
2.	Women's Cell	No. of toilets: 08	
		/ Incinerator: 01	
		Care taker: 01	
) 2000 sq. ft	
3.	Canteen	Working on contract basis	
) Separate room for staff	

	1	
		Seating capacity: 80
) Breakfast, lunch and tea/snacks provided
4	Safe drinking water	Drinking water available in every Department, Office,
4.	facility	Library and Women's Centre
	·	No. of Water Coolers: 03
5.	Career Guidance	
3.	Centre	Well-furnished room of approx. 150 sq. ft
6.	Health Centre	Sick room in the Physical Education Department
		Sick room for girls at Women's Centre
		Seating capacity -1000
	A 11.	Audio Visual facility
7.	Auditorium	Acoustics properly maintained
		J Balcony Seating
		Stage equipped with light and sound arrangements
8.	Rest room for non-	Sufficient furniture to dine and take rest
0.	teaching staff	Toilet facilities available
		Roofed two wheeler parking space for men and women
9.	Vehicle Parking	Roofed two wheeler parking space for staff and students
		Roofed four wheeler parking space
10	D 1 C 11	Books and stationery
10.	Book Stall	Credit allowed for staff and students
11.	Solar Panels	Seminar Hall enabled with solar power
		,
12.	Rain Water Harvesting	System equipped with water pits and water tank.
	Staff Co-operative	A room of approx. 500 sq. ft available
13.	Society) Various schemes like deposits, loans and mutual benefit
		schemes

4.2. Library as a learning Resource

4.2.1 Does the library have an Advisory Committee? Specify the composition of such a committee. What significant initiatives have been implemented by the committee to render the library, student user friendly?

The Library Advisory Committee:

The Library Advisory Committee consists of the Librarian, senior faculty members, student representative and supporting staff. The Librarian serves as the Convener of the Committee.

Functions of the Library Advisory Committee:

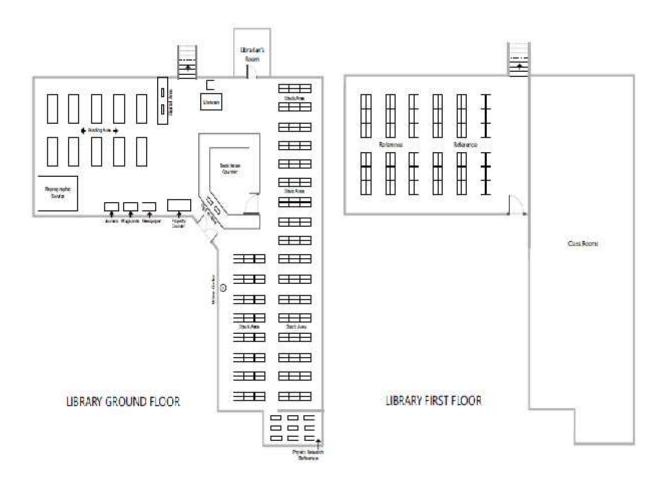
Advises on purchase and acquisition of titles, journals, periodicals, etc.
 Ensures utilisation of funds available under various schemes like UGC, P.D. account, Library fee, etc.
 Assesses and suggests developmental plans, administration and improvement of library services.
 Conducts stock verification
 Verifies and approves the lists of books to be purchased by the Departments.
 Attends the grievances of the students and takes proper remedial measures.

Significant Initiatives implemented to render the Library, Student user friendly:

Library is automated with locally available software.
Open Access System is available.
Five computers with internet connectivity and 2 printers.
Separate reading room is provided
Shelf index is properly maintained.
Reprographic facility is arranged inside the library.
Water cooler is provided in the library.
Book Binding Section is utilized to mend damaged books.

4.2.2 Provide details of the following:

- *Total area of the library in (sq.mts.)
- *Total Seating Capacity
- *Working hours (on working days, on holidays, before examination days, during examination days, during vacation)
- *lay out of the library (individual reading carrels, lounge area for browsing and relaxed reading. IT zone for accessing e-resources)



Total area of library in sq. mts.: 568

Total Seating Capacity: 80

Working hours: 8.30 am to 4.30 pm

4.2.3 How does the library ensure purchase and use of current titles, print and e-journals and other reading materials? Specify the amount spent on procuring new books, journals and e-resources during the last four years.

The Principal/UGC Committee allots a budget from the Library Fee and UGC fund respectively, to each Department in order to purchase books.

The following measures are taken to ensure purchase and use of current titles and other reading materials:



- The list of titles prepared by each Department is verified and sanctioned by the Library Committee.
- Members of the faculty visit book exhibitions and purchase recent titles.
- Newspapers, periodicals and journals are subscribed.

Amount spent on procuring new reading materials during the last four years:

Year	No. of books purchased	Amount Spent in Rupees
2010-11	423	1,43,633
2011-12	298	82,636
2012-13	142	22,643
2013-14	952	2,29,537
2014-15	1241	4,22,580
TOTAL	3056	9,01,029

4.2.4 Provide details on the ICT and other tools deployed to provide maximum access to the library collection

OPAC	Available
Electronic Resource Management Package for e-journals	Not available
Federated Searching Tools to search articles in multiple databases	Not available
Library Website	Not available
In-house remote access to e-publications	N-list facility available
Library automation	Fully automated with LIBSOFT
Total no. of computers for public access	4
Total No. of printers for public access	2
Internet bandwidth/speed 2 mbps 10 mbps 1 GB	100 mbps
Institutional Repository	Not available



Content Management System for e-Learning	Not available
Participation In Resource sharing networks/consortia (like inflibnet)	N-list facility available

Details of Library Holdings (Year-wise additions)

Year	Text Books		Text Books Reference Books		Journals/Periodicals/e- journals	
	Number	Total Cost	Number	Total Cost	Number	Total Cost
2010-11	423	1,04,070	38	39,563	21+9 dailies	22,739
2011-12	298	46,403	42	36,233	21+9 dailies	23,834
2012-13	142 +8 (donated)	7,817 +810 (donated)	28	14,826	19+10 dailies	26,717
2013-14	952	2,03,905	20	25,632	16+10 dailies	27,838
2014-15	1241	3,89,927	20	32,653	15+10 dailies	29,511

4.2.5 Provide Details on the following items:

Statistical Details of Usage

Average number of walk-ins	200 per day
Average number of books issued/returned	100
Ratio of library books to students enrolled	40:1
Average number of books added during last three years	803
Average number of login to OPAC	40
Average Number of login to e-resources	20
Average number of e-resources downloaded/printed	10



Number of information literacy trainings organized	1/year
Details of weeding out of books and other materials	30-50 / year

4.2.6 Give details of the specialized services provided by the library.

Sl No.	Service	Details
1	Manuscripts) Nil
2	Reference) 52,000 titles
3	Reprography	One station functioning during all working hoursAverage number of prints per day: 300
4	ILL	 Accessibility provided to students from other institutions, through proper channel
5	Information deployment and notification	Display of new books in new arrivals rackImportant Information displayed on Notice Board
6	Download	J 4 computers with internet connectivity
7	Printing	2 printersNominal charge for printing
8	Reading list/Bibliography compilation) Updated
9	In-house/remote access to e-resources) Inflibnet available
10	User orientation and Awareness	 Regular orientation programme given to first semester students
11	Assistance in searching databases	J Lib Soft software
12	INFLIBNET/IUC Facilities	J N-list facility available

4.2.7 Enumerate on the support provided by the Library staff to the students and the teachers of the college.

)	Books are issued for a period of retention of two weeks.
J	Timely return of books ensured. Fine imposed for delayed return.
J	Reprographic service provided at a nominal charge.
J	Question papers of all University examinations compiled and made available for
	reference.
J	Assistance to internet access provided
J	Latest collections displayed for easy access
J	Copies of catalogues received in the library are circulated among the faculty and
	Departments.
J	Open Access System followed
J	First semester students given library orientation class

4.2.8 What are the special facilities offered by the library to the visually/physically challenged persons?

- The library staff helps in the search, issue and return of books.
- Seats are reserved for physically challenged students in the library.
-) Special assistance is given for internet browsing.
- A staff is employed by the Management at the photocopy section.
- Books required for visually/physically challenged students are issued to assistants.

4.2.9 Does the library get the feedback from users? If yes, how it is analysed and used for improving the library services. (What strategies are deployed by the Library to collect feedback from users? How is the feedback analysed and used for further improvement of the library services?

Feedbacks from students are collected and remedial actions are taken to rectify the drawbacks.



4.3. IT infrastructure

4.3.1 Give details on the computing facility available (hardware and software) at the institution.

1.	Number of computers with configuration	141	 Intel i7 CPU, 4 GB RAM (1 No.) Intel i3-4160, 4GB RAM (29No.) Intel Pentium CPU G2030, 2 GB RAM (70 No.) Intel Pentium G3240, 2 GB RAM(16No.) 3.2 (Pentium) Dual Core E5800, 2 GB RAM(8No.) Intel i3-2350 M, 2GB RAM (5No.) Intel Pentium Dual Core ,1 GB RAM (3) Intel Xeon PU E3-1220V2S, 8 GB RAM (1 No.)
2.	Computer-student ratio		1:9
3.	Stand alone facility	6	 Administrative Block (1 No.) Physics Computer Lab (2 No.) Physics Research Centre (2 No.) Commerce Computer Lab (1 No.)
4.	LAN facility	4	 Common Computer Centre Physics Computer Centre Commerce Computer Centre Administrative Section
5.	Wi-fi facility	6	 Administrative Block Physics Department Physics Research centre Chemistry Department English Media Room
6.	Licensed software		 LIBSOFT, Spectroscopic software IR solution Math Lab, UV Probe Gaussian 09, GaussView, Chemcraft, Chem Draw etc. Spectrophotometer Arrangement
7.	Number of nodes/compu with Internet facility	iters	95

4.3.2 Detail on the computer and internet facility made available to the faculty and students on the campus and off-campus?



- Staff rooms have computers with internet facility.
- Computer centre with 25 computers and internet connectivity is available for students and staff.
- Computer assistant is available to students and faculty.
- Library has four computers with internet connectivity.
- Off the campus, the ladies hostel has two computers with internet connectivity available for resident students and staff.

4.3.3 What are the institutional plans and strategies for deploying and upgrading the IT infrastructure and associated facilities?

- IT Infrastructure Committee monitors timely upgrading of IT infrastructure.
- Advanced Software is installed when necessary.
- A target of at least one smart room for every Department was achieved during the last five years.
- Budget for development of IT infrastructure is allotted from Management fund and PTA fund. Funds from various agencies like UGC, DST, KSCSTE etc. also are utilized.
- 4.3.4 Provide details on the provision made in the annual budget for procurement, upgradation, deployment and maintenance of the computers and their accessories in the institution (Year wise for last four years)

Year	Procurement/ Upgradation/ Deployment/ Maintenance (Rs.)
2010-11	18,93,851
2011-12	7,90,900
2012-13	1,63,223
2013-14	4,63,600
2014-15	8,97,710
2015-16	2,58,108

4.3.5 How does the institution facilitate extensive use of ICT resources including developme	nt
and use of computer-aided teaching/learning materials by its staff and students?	

J	The institution provides Laptop/notebook, LCD projector, white board facilities for				
	ICT enabled teaching.				
J	Departments have projector enabled rooms.				
J	Seminar Hall and Media Room are frequently used for teaching/learning.				
J	Audio visual aids are used in teaching.				

- 4.3.6 Elaborate giving suitable examples on how the learning activities and technologies deployed (access to on-line teaching learning resources, independent learning, ICT enabled classrooms/learning spaces etc.) by the institution place the student at the centre of teaching-learning process and render the role of a facilitator for the teacher.
 - Students show interest in presenting seminars using ICT, making the teacher a facilitator. Vishnu Rajendran, M.Sc. Physics student, conducted a lecture "Salute to Dr. APJ Abdul Kalam", for the College as a tribute to late Dr. A P J Abdul Kalam, Former President of India.
 - The PG students are encouraged to take classes for Degree students. They also make seminar presentations aided by power point.
 - To promote student centered learning process, students are encouraged to prepare documentary/short films on relevant topics. Students of B.Sc. Physics prepared and presented a documentary on "Ozone Layer: All there is Between You and UV"
- 4.3.7 Does the Institution avail of the National Knowledge Network connectivity directly or through the affiliating university? If so, what are the services availed of?

National Knowledge Network connectivity is not available presently; however, the institution is planning to avail the facility shortly.



4.4. Maintenance of Campus Facilities

- 4.4.1 How does the institution ensure optimal allocation and utilization of the available financial resources for maintenance and upkeep of the following facilities (substantiate your statements by providing details of budget allocated during last four years)?
 - Budget is allocated for maintenance by the Management Board
 - Construction and maintenance is done through contract work
 - Major construction is executed during vacation
 - Review at every quarter by Principal
 - J Infrastructure Committee monitors optimal utilization
 - Proper utilization of funds is ensured by internal audit

Details of budget allocated during last four years (Expenditure made in respect of the below mentioned items does not include that from the UGC funds)

Sl	Item	Amount spent during (Rs.)				
No.		2010-11	2011-12	2012-13	2013-14	2014-15
1	Building	Nil	21,35,557	49,92,358	32,90,618	45,56,177
2	Furniture	58,910	91,000	57,550	1,67,935	3,86,343
3	Equipment	29,490	44,853	45,942	1,47,397	Nil
4	Computers	121,180	Nil	6,851	Nil	Nil
5	Vehicles	Nil	Nil	Nil	Nil	Nil
6	Any Other	Nil	Nil	Nil	Nil	Nil

4.4.2 What are the institutional mechanisms for maintenance and upkeep of the infrastructure, facilities and equipment of the College?

- Funds available from agencies such as UGC, DST, KSCSTE, BRNS etc. are availed of and utilized to the maximum. Extra expenses are met by the Management, PTA and other bodies.
- Work Supervisor is appointed by the Management.
- Full time mechanic is available for the repair and maintenance of equipments.
- Technicians are available for electrical and infrastructure maintenance.
- Computers are maintained under Annual Maintenance Contract
- Major equipments are maintained by the respective companies/suppliers
- HoDs and Senior Superintendent are authorized to ensure upkeep of equipments

Maintenance Staff

Particulars	No. of Staff
Sweeper	2
Peon	2
Mechanic	1
Lab. Attendant	7
Library Attendants	3
Safety and Security	2

4.4.3 How and with what frequency does the institute take up calibration and other precision measures for the equipment/ instruments?

- Calibration and precision measures are taken up for instruments by the faculty, lab assistants and mechanic of the Departments concerned.
- Major instruments calibrated by the manufacturer/service personnel before the commencement of University Examinations.

4.4.4 What are the major steps taken for location, upkeep and maintenance of sensitive equipment (voltage fluctuations, constant supply of water etc.)?

- A generator of capacity 6 Mega Watt supplies power in the campus which ensures fulltime electrical supply in laboratories, seminar halls etc.
- Two other generators are also available



- All computer labs have back-up facility.
 Two units of 5 KVA UPS installed in Physics Computer Lab
 Two 5 kVA UPS installed in Physics Research Lab and one unit of 5 kVA UPS installed in Commerce Computer Lab
- One computer centre and two equipment rooms are air conditioned

CRITERION V: STUDENT SUPPORT AND PROGRESSION

5.1. Student mentoring and support

5.1.1. Does the institution publish its updated prospectus/ Handbook annually? If 'yes', what is the information provided to students through these documents and how does the institution ensure its commitment and accountability?

Yes. Every academic year the College publishes its Handbook and Calendar, which contains the following information.

J	Vision, Mission and Objectives of the College	J	Courses of Study
J	The College Prayer	J	Fee regulation
J	Details of the College coat of arms	J	Scholarships and Trophies
J	A short history of the College	J	List of Committees
J	Aims and aspirations of the College	J	College Associations
J	Milestones	J	The College Union
J	Details about the Management and Management	J	The College Magazine
	Board	J	The College Book Stall
J	List of Staff Council members	J	Parent Teacher Association
J	Department wise list of Teaching Faculty with their	J	Alumni Association
	contact details	J	Endowments
J	List of Non-Teaching Staff	J	Calendar (Year Planner)
J	General rules of discipline – Attendance, College	J	Important telephone numbers
	Library		

The College Handbook and Calendar is an expression of the commitment and accountability of the College to its students and the general public. It ensures transparency in the functioning of the College.

5.1.2. Specify the type, number and amount of institutional scholarships / freeships given to the students during the last four years and whether the financial aid was available and disbursed on time?

Academic	Government		Institutional	
year	No. of students	Amount disbursed	No. of students	Amount disbursed
2010-11	680	34,37,800	11	1,10,000
2011-12	691	34,10,410	16	1,15,000
2012-13	676	34,77,800	17	1,22,000
2013-14	673	34,64,950	35	1,30,000
2014-15	743	38,77,250	23	1,45,000

The Institution has a separate section devoted to freeships/scholarships to the students. All the eligible students receive their financial aid as and when the Government sanctions the amount, which is disbursed to the students on time.

5.1.3. What percentage of students receives financial assistance from state government, central government and other national agencies?

Financial Assistance	Percentage %
State Government	61.5
Central Government	0.5
Other National Agencies	0.1

5.1.4. What are the specific support services/facilities available for? Students from SC/ST, OBC and economically weaker sections:

- 20% seats are reserved for the SC/ST community in all programmes offered by the College, as per the Government rules.
- SC/ST students are eligible for fee concession, stipend and lump sum grant from the State Government.
- Students from economically backward community are provided refund of tuition and examination fees
- Hostel for women students belonging to SC/ST, OBC and economically weaker sections.

- Students are given orientation about the scholarships and financial support available. They are encouraged to apply and the funds are distributed on time.
- The College supports the economically weaker students through the Student Aid Fund.
- Equal Opportunity Cell organises programmes for the benefit of the SC/ST and OBC students.
- Noon meal is provided to needy students.

Students with physical disabilities:

- One seat is reserved for physically disabled students in all programmes.
- Ramp with hand rails are provided.
- Scribes are provided for physically challenged students.
- Class rooms are arranged on the ground floor.
- Separate toilet facility is provided for physically disabled students.
- Wheel chair is available.

Students to participate in various competitions/National and International:

- Invitations and information regarding various competitions are channeled through the faculty members in charge of the various Clubs, Department Associations, NCC and NSS. The cultural competitions, sports meet literary competitions and games conducted at the College level help to identify the talented students and motivate them to participate in National/International competitions. Teachers also accompany the participants if needed.
- The College has a Sports Council of Kerala recognised sports hostel and coach for the women's basketball team.
- Two faculty members in the Physical Education Department provide adequate training for students to participate in competitions. The College has produced International players in soft ball and is among the few institutions promoting soft ball. The College also provides facilities for Judo.
- Sports students are provided with food and accommodation.

	Control
J	Student Aid funds are utilized to help participants to meet the travel/ occasional expenses.
J	Attendance is provided for students participating in such competitions.
J	National/International participation and achievements of students are felicitated and published in the College Newsletter and notice boards.
Med	lical assistance to students:
J	The service of a qualified doctor is available within 500 metres from the College.
J	First-aid facilities are available in the Physical Education Department.
J	A bed for sick students is available in the Women's centre.
J	Health awareness classes are conducted.
Orga	nnizing coaching classes for competitive exams:

O

- UGC-NET coaching is provided to PG students.
- PSC and Bank Coaching is imparted to the students on Saturdays and other holidays.
- NSS organises PSC coaching classes through peer teaching.

Skill development (spoken English, computer literacy, etc.):

The College conducts various skill development programmes relevant to local and global employment markets. The details and beneficiaries of the programmes offered are listed in section 1.2.5.

Support for "slow learners":

- Slow learners are identified by the faculty advisors. Special coaching and remedial classes are arranged for the slow learners.
- They are also provided with necessary study materials and stationery for improving their knowledge level under the Scholar Support Programme intended to support the "slow learners".
- Motivation and orientation classes are arranged to instigate confidence in slow learners.

Exposures of students to other institution of higher learning/corporate/business house etc.:

- Educational trips are conducted to higher learning institutes and libraries.
- Alumni who are pursuing their studies in higher institutions are invited to interact with students
- Visits to industrial and business houses
- The students are encouraged and recommended to do Summer Projects in reputed institutions like IISC Bangalore, IIT, NIIST, NCL, CUSAT and Kudankulam Nuclear Power Plant.

Publication of student magazines:

- The College magazine 'Vidyasarith' is published annually.
- The Magazine Editor is a member of the students' union.
- The faculty in charge of the Department Association encourages students to publish manuscripts.

5.1.5. Describe the efforts made by the institution to facilitate entrepreneurial skills, among the students and the impact of the efforts.

- The Entrepreneurship Development Club (EDC), registered with the Directorate of Industries and Commerce, Government of Kerala, helps groom young entrepreneurs.
- The EDC organised an Industrial Motivation Campaign on 10 October, 2013 in association with the Ministry of Small, Medium and Micro Enterprises (MSME) to motivate students take up entrepreneurship as a vocation.
- A Handloom Exhibition and sale was organised in association with District Industries Centre (DIC) to promote handloom among students. Looms were exhibited and live weaving was demonstrated to students.
- A talk was organised to promote 'value addition in coconut processing' in association with CPCRI (Central Plantation Crop Research Institute, Kayamkulam).

- 5.1.6. Enumerate the policies and strategies of the institution which promote participation of students in extracurricular and co curricular activities such as sports, games, quiz competitions, debate and discussions, cultural activities etc.
 - The various committees constituted for extra/co-curricular activities are: Quiz club, Debate Club, Arts Club and Sports Club.
 - Healthy competition spirit, promoted among students has increased the participation in extra/co-curricular activities. Department wise sports and March past competitions are conducted. House wise competition is followed for Arts and Literary fest. Two students-one male and one female-scoring the highest points in individual items are identified and honoured as the 'Kalaprathibha' and 'Kalathilakam' of the College. Trophies are presented to the members of the top scoring House.
 - Student achievements are notified in the College Newsletter and they are felicitated.
 - The cultural competitions, sports meet and literary competitions conducted at the College level help identify the talented students and motivate them for participation in national/international competitions.

Additional academic support, flexibility in examinations

- Students who participate in the programmes representing the College are provided with attendance.
- Separate internal exams are conducted if they are not able to attend the scheduled internal exams.
- List of students eligible for grace marks are forwarded to the University promptly.
- 5.1.7. Enumerating on the support and guidance provided to the students in preparing for the competitive exams, give details on the number of students appeared and qualified in various competitive exams such as UGC-CSIR- NET, UGC-NET, SLET, ATE / CAT / GRE / TOFEL / GMAT / Central /State services, Defense, Civil Services, etc.
 - Coaching programme was organised to equip the students to gain entry into Government Services through the UGC sponsored scheme "Entry into Services".

- The College has a Career Guidance and Placement Cell to expose the students for better career options in life.
- The PG Departments conduct coaching classes for UGC- NET/JRF.
- The two NCC units in the College provide guidance and encourage the cadets to join the various defense arms of the nation.
- The NSS organises PSC coaching classes through peer teaching for the students.

Details on the number of students qualified in competitive exams (last four years):

Examination	No. of students passed
UGC-NET	7
CSIR-JRF-NET	10
GATE	3
SET	*
Defense Services	*

^{*} Information not available

5.1.8 What type of counselling services are made available to the students (academic, personal, career, psycho-social etc?)

The College has a Counselling Cell comprising eight members from the teaching faculty to help the students. The Head of the Departments and faculty advisors are entrusted to identify students who need any personal counselling.

The various academic, personal, career and psycho-social guidance services provided by the College is detailed in section 1.3.4

5.1.9 Does the institution have a structured mechanism for career guidance and placement of its students? If 'yes', detail on the services provided to help students identify job opportunities and prepare themselves for interview and the percentage of students



selected during campus interviews by different employers (list the employers and the programmes).

Yes. The College has a Career Guidance and Placement Cell which takes care of career guidance and placement of students. All the recruitment drive invitations that come to the College office are channeled to students through the cell. Offers for recruitment drive in campus and off campus both are accepted. Class campaigns are done based on the qualification required and students are asked to register with the cell if they are interested in appearing for the drive. Grooming sessions are conducted by the cell to enrich students with necessary information regarding the nature of the drive, equipping them to attend the process with confidence.

The placement cell also conducts training programmes like mock interviews and group discussion to enable them to perform better.

Sl.No	Name of the Company	Date	No of Candidates	No of Selection
1	Federal Bank	June 2013	35	1
2	South Indian Bank	June 2014	33	1
3	Catholic Syrian Bank	June 2015	35	1
4	Episource India Pvt Ltd	20 th June 2015	148	7
5	UST Global	4 th Sep 2015	35	3
5	Wipro	18 th Sep 2015	12	1
6	HDFC Life	29 th Sep 2015	12	3
7	TCS	1 st Aug 2015	22	1
8	HDFC Life	29 th Feb 2016	39	9 Students Selected for Final Interview

5.1.10 Does the institution have a student grievance redressal cell? If yes, list (if any) the grievances reported and redressed during the last four years.

Yes, the institution has a Student Grievance Redressal Cell. All grievances of the students are taken up and redressed by the cell. The grievances reported and redressed are-

- 1. Improving the facilities of the class room: The issue was discussed and adequate lights and fans were provided.
- Shortage of two wheeler parking space: This issue was considered and appropriate measures were taken by the management to increase the parking space for two wheelers.
- 3. Providing more water coolers: The matter was taken up and adequate water coolers were provided for students.
- 4. Improving the quality of service in the Women's Centre: The issue was discussed and the wash area and toilets were renovated. An incinerator was also installed.

5.1.11 What are the institutional provisions for resolving issues pertaining to sexual harassment?

A cell to combat sexual harassment has been constituted in the College. So far no such cases have been reported, which reflects that the campus maintains a gender friendly atmosphere.

5.1.12 Is there an anti-ragging committee? How many instances (if any) have been reported during the last four years and what action has been taken on these?

Yes. The anti-ragging cell has been constituted to prevent anyone from involving in ragging and to sensitize students against ragging. The members include the convener, six members representing teaching faculty, PTA Secretary, PTA Vice President, CI of police and SI of police. They decide on any disciplinary action to be taken, if any instance of ragging occurs.

During the last four years no ragging offences have been reported, as the College adopts the following measures in curbing ragging.

- The faculty members of the anti ragging cell and wardens are vigilant in preventing any attempt of ragging.
- At the time of admission a statement is signed by every student that he/she will restrain from any sort of such illegal activities.
- Excerpts from the UGC Regulation on Curbing Menace of Ragging, its definition and the punishable ingredients of ragging are detailed in the College Handbook and Calendar.
- Posters are exhibited in the notice boards to provide proper awareness to the students.

5.1.13 Enumerate the welfare schemes made available to students by the institution.

- Economically weak students are given refund of tuition fees and examination fees.
- SC/ST and OEC students are given lump sum grant, tuition fees, examination fees, and stipend during their study in the institution.
-) OBC students are given tuition fees, examination fees and stipend.
- Credit facility to purchase books and stationery items from the bookstall.
- J Student Aid Fund Scheme to provide noon meal for needy and deserving students
- Women's Centre and Tailoring classes for women students.
- Various endowments and financial assistance are provided to deserving students.

5.1.14 Does the institution have a registered Alumni Association? If 'yes', what are its activities and major contributions for institutional, academic and infrastructure development?

Yes. The College has a registered Alumni Association established in 1983. The association works to foster the camaraderie among the old students and build a strong and lasting relationship with the Alma Mater.

- Class get-together, Department get-together and Annual General Body are organised by the Association
- The Alumni Association is a major stakeholder in the activities of the College. They actively contribute to the institutional, academic and infrastructural developments of the College. One good example of the contribution of Alumni Association to development of the College is the construction of the Golden Jubilee Gate, which was sponsored by the Alumni.
- Chitramadhuri' a painting competition is organised for primary school children.
- The Alumni Association conducts the Inter collegiate Basket ball tournament for the Bishop Moore Trophy.
- Programmes are arranged to honour teachers and distinguished alumni who have made significant contribution to society.
- The Alumni Association offers healthy and constructive feedback for the betterment of the institution.

5.2. Student Progression

5.2.1 Providing the percentage of students progressing to higher education or employment (for the last four batches) highlight the trends observed.

Student progression	%
UG to PG	45-50
PG to M.Phil.	3-4
PG to Ph.D	10 - 15
Employed Campus selection	<5
Employed other than campus recruitment	70-75



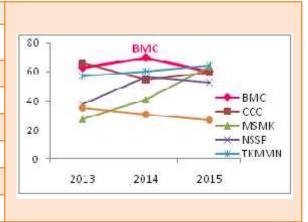
5.2.2 Provide details of the programme wise pass percentage and completion rate for the last four years (cohort wise/batch wise as stipulated by the university)? Furnish programme-wise details in comparison with that of the previous performance of the same institution and that of the Colleges of the affiliating university within the city/district.

[Abbrevations: Bishop Moore College (BMC), Christian College Chengannur (CCC), MSM College Kayamkulam(MSMK), NSS College Pandalam (NSSP), TKMM College Nangiarkulangara (TKMMN), S.N. College Ala (SNCA) S N College Kollam (SNCK), KVVS College, Pathanamthitta (KVVS), SN Guru Memorial Arts and Science College, Alappuzha (SNGC)]

Programme -wise Result Analysis and comparison with the result of nearby Colleges:

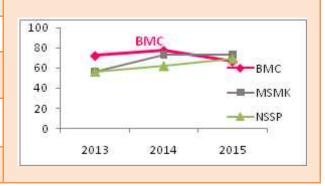
1. BA ECONOMICS

College	Pass Percentage			
Conege	2013	2014	2015	
BMC	62.5	69.39	60	
CCC	65.91	54.17	59.52	
MSMK	27.27	40.74	63.64	
NSSP	37.62	56.25	52.48	
TKMMN	56.82	60.38	64.1	
SNCA	35.29	30.56	26.79	



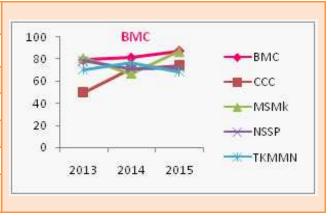
2. BA MALAYALAM

Collogo	Pass Percentage			
College	2013	2014	2015	
ВМС	72.22	77.42	66.67	
MSMK	56.1	73.17	73.17	
NSSP	56.25	62.07	69.23	



3. B. Sc MATHEMATICS

College	Pass Percentage		
O	2013	2014	2015
BMC	79.31	81.4	87.5
CCC	50	71.79	74.19
MSMK	80.95	66.67	86.84
NSSP	78.38	71.43	72.55
TKMMN	70.59	76.32	68.57



4. B.Sc BOTANY

College	Pass Percentage			
	2013	2014	2015	
BMC	59.26	86.67	90	
CCC	55	57.89	65	
MSMK	75	54.35	67.24	
NSSP	65.38	83.33	70.97	



5. B.Sc ZOOLOGY

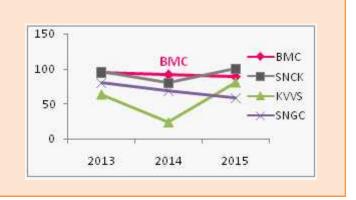
College	Pass Percentage			
_	2013	2014	2015	
ВМС	85.71	90.32	81.25	
CCC	CCC 62.5		65.63	
MSMK	78.57	50	69.23	
NSSP	70.37	61.54	81.82	
TKMMN	88.57	91.18	81.25	





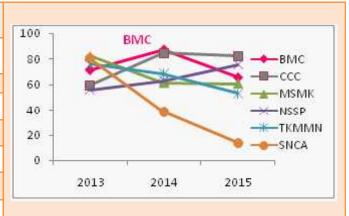
6. B.Sc BOTANY & BIOTECHNOLOGY

College	Pass Percentage				
	2013	2014	2015		
ВМС	94.74	94.74 91.67			
SNCK	95.24	80	100		
KVVSP	63.64	23.53	80.95		
SNGCA	80	69.23	58.82		



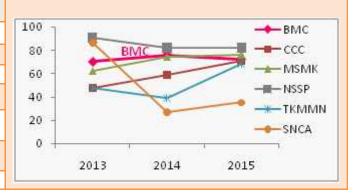
7. B.SC PHYSICS

College	Pass Percentage			
8	2013	2014	2015	
BMC	71.43	87.5	65.63	
CCC	59.26	84.62	82.14	
MSMK	82.14	61.11	60.53	
NSSP	55.81	62.79	75.61	
TKMMN	75.76	68.29	53.13	
SNCA	80	38.1	13.64	



8. B.Sc CHEMISTRY

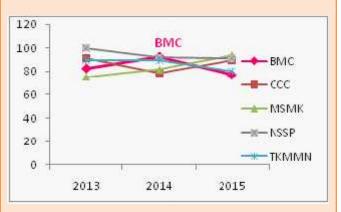
Collogo	Pass Percentage			
College	2013	2014	2015	
BMC	70	76	72.22	
CCC	47.62	58.62	71.05	
MSMK	61.9	73.91	75.86	
NSSP	90.63	82.05	82.22	
TKMMN	47.62	39.02	68.63	
SNCA	86.67	26.67	35.14	





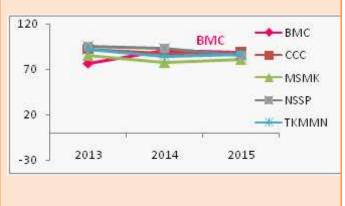
9. BA ENGLISH

College	Pass Percentage			
	2013	2014	2015	
BMC	82.5	92.68	76.92	
CCC	91.18	78.38	89.19	
MSMK	75	81.4	93.62	
NSSP	100	91.67	91.07	
TKMMN	89.66	89.47	80	



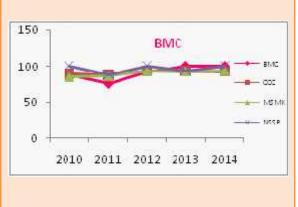
10. B.COM

College	Pass Percentage			
-	2013	2015		
ВМС	76.47	90.38	88.33	
CCC	92.31	87.8	88.37	
MSMK	84.76	76.99	80.56	
NSSP	94.92	92.73	85	
TKMMN	91.43	84.06	86.76	



11. MA ENGLISH

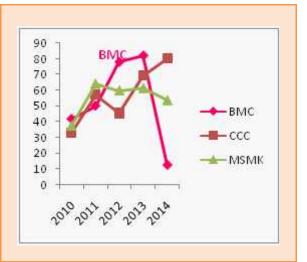
College	Pass Percentage				
Conege	2010	2011	2012	2013	2014
ВМС	87.5	75	92.31	100	100
CCC	88.89	87.5	93.33	92.86	92.31
MSMK	84.62	85.71	93.33	92.86	93.75
NSSP	100	88.24	100	93.33	100





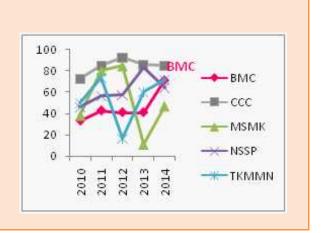
12. M.Sc CHEMISTRY

College	Pass Percentage				
Conege	2010	2011	2012	2013	2014
ВМС	41.67	50	77.78	81.82	12.5
CCC	33.33	57.14	45.45	69.23	80
MSMK	37.5	64.29	60	61.54	53.85



13. M.Sc PHYSICS

College	Pass Percentage				
Conce	2010	2011	2012	2013	2014
ВМС	33.33	42.86	41.18	41.18	71.43
CCC	72.73	84.62	92.31	85.71	84.62
MSMK	38.1	80	84.62	11.11	47.06
NSSP	46.15	56.25	57.14	83.33	64.29
TKMMN	50	73.33	16.67	60	71.43



5.2.3 How does the institution facilitate student progression to higher level of education and/or towards employment?

The College offers four Post Graduate Courses and has two research centres.

) Students are given career counselling by the respective Departments.

Many students who have completed their UG at Bishop Moore College have joined reputed institutions for higher studies.

The Career Guidance and Placement Cell grooms the students for campus placements.

5.2.4 Enumerate the special support provided to students who are at risk of failure and drop out?

The steps taken by the College for the students who are at risk of failure in examinations:

- Provide study materials and classes through Scholar Support Programme
- Remedial Coaching Scheme
- Personal guidance through the mentors
- Discussion with parents
- Department level PTA meetings

5.3. Student Participation and Activities

5.3.1 List the range of sports, games, cultural and other extracurricular activities available to students. Provide details of participation and program calendar.

The College promotes sports, games and cultural activities for students.

Outdoor facilities for sports include a stadium, basket ball, volley ball and shuttle badminton courts

Indoor facility for table tennis

Multi-gym for students and teachers

Annual sports and games are arranged

) 'KALASARITH', the College Arts festival, is conducted annually

Programme Calendar of sports, games cultural and other extracurricular activities

Event	Date	Organised by
Hosted Kerala University	March 2013	University of Kerala
KALOTSAVAM		
Science Exhibition	26 Feb 2014	Science Club
Golden Expo	26-27 Feb 2015	College



Suvarnolsavam- cultural programmes	7 Mar 2015	College
Women's Day Celebration	8 March 2016	Women's Study Unit
Selection of Best Outgoing	March 2016	STARS
Students		
Fresher's Day Celebration	Annually	College
Environment Day Celebration	Annually	NSS, Bhoomithrasena,
		ENCON Club
Onam Celebrations	Annually	College
	Annually	College
Teachers' Day Celebration		
Ozone Day Celebration	Annually	Department of Physics
Inter-collegiate Volleyball	Annually	Department of Physical
tournament		Education
NSS Seven Day Camps	Annually	NSS
NCC Camps	Annually	NCC
Gandhi Jayanthi Celebration	Annually	NSS
AIDS Day Observation	Annually	NSS
Christmas Celebrations	Annually	College
Excursions	Annually	Departments
Science Day Celebration	Annually	Science Club
Laurel Literaria	Annually	Department of English
Sports Meet and March Past	Annually	College
KALASARITH – Arts Festival	Annually	College
Farewell function	Annually	Departments
PADHEYAM - Send off to	Annually	College
outgoing students		

5.3.2 Furnish the details of major student achievements in cocurricular, extracurricular and cultural activities at different levels: University / State / Zonal / National / International, etc. for the previous four years.

International/ National Achievements of NCC cadets:

- Su/o Gayathri S. attended Youth Exchange Programme in Russia in 2015
- Su/o Gayathri S. represented the Kerala and Lakshadweep Directorate for the Republic Day Camp, 2014

- U/o Shibila Rajeev represented the Kerala and Lakshadweep Directorate for the *Republic Day Camp*, 2011, at Delhi and bagged first position in the national level dance competition.
- U/o Sreelekshmi R. attended the *National Integration Camp* in Orissa in 2010.
- U/o Preethi G. attended *Basic Leadership Camp* in Gujarat in 2010.
- U/o Jisha V. attended a *Special Army Camp* at Officer's Training Academy, Chennai
- Sgt. Aju Geevarghese attended the *National Integration Camp* held at Bhopal in 2010.
- CSM Dinesh Kumar S. attended *Trekking Camp* at Belgaum in 2010.
- U/o Surabhi Suresh attended *Moulankar shooting competition* held at West Bengal in 2014
- U/o Surabhi Suresh and U/o Susmitha Suman attended *Natinal Integration Camp* at Coorg in 2014
- Cdt Heera S, attended *National Integration Camp* at Portblair.

International/ National Achievements of NSS Volunteers:

Ms. Arathi M. N. represented University of Kerala in the Kerala Contingent for the *Republic Day Camp* at New Delhi in 2010.

Major Student achievements in the Kerala University Arts Festival:

Academic year	Name	Event	Position
2010-11	Rahul Remanan	Folk Dance	Third
	Nithin Monachan	Sculpture	First
2012 12	Nishi Babu	Short Story - Hindi	First
2012-13	Vinayak P	Drama competition	Best actor
	College Drama team	Drama Competition	Second
	Surya Sumakuttan	Elocution - English	Second



	Sreeveni Antharjanam	Bharathanatyam	Second
	Sreeveni Antharjanam	Veena string instrument	Second
	Vinayak P	Monoact	Third
	College drama team	Drama Competition	First
2013-14	Fabian Fernandez	Acting- Drama	Best actor
	Abhiraj S.	Mimicry	Second
	Vishnu Rajendran	Hindi Essay	Second
	Abhiraj S.	Mimicry	Second
	Sriveni Antharjanam	Veena string instrument	Second
2014-15	Gayathri T	Rangoli	Second
	Vishnu Rajendran	Hindi Essay Writing	Third
	Indhu	Akshara slogam recital	Third
	Nigina N.A	Hindi Short Story Writing	Third

Major Sports Achievements:

2010-2011				
Sl.No	Name	Class	Game	Level of achievement
16	Jerin Ajith	II B.Com	Judo and Wrestling	Kerala University 1 st
17	Joshy Yesudas	II Mal	Judo and Wrestling	Kerala University1st
18	Sujith R	II B.Com	Judo and Wrestling	Kerala University 1 st
19	Arun S	I B.Com	Judo and Wrestling	Kerala University 1 st
20	Vishnu Surendran	I Eng	Judo	Kerala Unvirsity 1st
21	Renjith P	II Phy	Judo	Kerala University 2 nd
22	Vishnu Prasad Y R	II Eng	Judo	Kerala Unviersity 2 nd
23	Jenniffer Leon Boban	II B.Com	judo	Kerala University 2 nd
24	Sreedevi Sekhar	II B.Com	Judo	Kerala University 3 rd
29	Bishop Moore College Team		Men Baseball	Kerala University 1 st
30	Bishop Moore College Team		Women Baseball	Kerala University 2 nd
31	Bishop Moore College Team		Judo Men	Kerala University 1 st
32	Bishop Moore College Team		Judo Women	Kerala University 2 nd



2011-2012					
Sl.No	Name	Class Game		Level of achievement	
1	College team	Men Baseball		1 st University	
2	College team	Women softball		2 nd University	
3	College team	Judo Men		1 st University	
4	College team	Judo Women		2 nd University	
5	College team	Softball Men		3 rd University	
2012-2013					
Sl.No	Name	Class	Game	Level of achievement	
2	College team	Men Baseball		2 nd University	
3	College team	Judo Men		1 st University	
4	College team	Judo Women		2 nd University	
5	College team	Softball Men 1 st University			
2013-2014					
Sl.No	Name	Class Game		Level of achievement	
1	College team	Judo		Winners-Intercollegiate	
2	College team	Fencing		Winners- Intercollegiate	
3	College team	Baseball		Third - Intercollegiate	
16	Aswathy A	II Mal Half marathon		Second University	
17	Vimal V Pillai	III Bcom Tennikoit		Selected as Coach	
18	Seena Varghese	II Mal	High Jump	Third	
2014-2015					
Sl.No	Name	Class	Game	Level of achievement	
1	College Judo team	Judo		Winners-University	
2	College Volleyball team			Winners- Intercollegiate north zone	
3	College Softball team			Second- University	
4	College Volleyball team	Volleyball Runner-up -St.Thomas Colle		Runner-up -St.Thomas College trophy, Kozhenchery	
5	College Volleyball team	Volleyball		All Kerala interCollegeiate – TKM Collge of Engg. Kollam	

Sports – University/National/International Participation

Laval	No. of students Participated						
Level	2010-11	2011-12	2012-13	2013-14	2014-15		
University	1	14	8	12	8		
Inter-University	14						
National	4	3					
International		1	1				

5.3.3 How does the College seek and use data and feedback from its graduates and employers, to improve the performance and quality of the institutional provisions?

The College seeks feedback from its graduates and employers on various occasions.

- A Visitor's Feedback Diary is maintained in the College.
- A good number of parents are former students of the College. During PTA meetings, they evaluate and provide timely suggestions for the improvement of the College.
- The institution has a good representation of alumni among staff members-both teaching and non teaching.
- The College seeks feedback from alumni during Alumni Association meetings and batch wise get-together.
- 5.3.4 How does the College involve and encourage students to publish materials like catalogues, wall magazines, College magazine, and other material? List the publications/ materials brought out by the students during the previous four academic sessions.
 -) 'Vidyasarith', the College magazine is published annually.
 - Dreams 2015' manuscript was published by the Physics Association as a tribute to the former President Dr. A. P. J. Abdul Kalam.

)	'Specturm 2014', manuscript was published by the Physics Association in 2014.
J	'Life', manuscript was published by the Zoology Association in 2013.
J	'Shruthi' manuscript was published by the Malayalam Association in 2012.
J	'Jalakam' was published by the students of Journalism and Mass Communication in 2011
J	'Parietal Reflections' is the wall journal prepared by the students of the PG Department of English.

5.3.5 Does the College have a Student Council or any similar body? Give details on its selection, constitution, activities and funding.

Yes. Bishop Moore College is one among the few colleges where Presidential election is permitted.

The College Union is the students' body which is constituted as per University regulations. The Union is lead by an elected body of students to various posts. College Union elections are notified as per University schedule in the College notice board. Nominations are filed before the Returning Officer appointed by the Principal. The election is through secret ballot system.

The union executive consists of fourteen students selected to various posts. The representatives in the executive occupy the following seats.

J	College Union Chairman		Vice Chairperson
J	General Secretary	J	College Magazine Editor
J	Arts Club Secretary	J	Two University Union Councilors
J	Two Lady Representatives	J	Sports Secretary
J	Representatives of PG students, first, second	d ar	nd third year students

5.3.6 Give details of various academic and administrative bodies that have student representatives on them.



Name of the committee	Student representative
Student Affairs	College Union Chairman
Library Committee	PG Student
Students' Grievances Reddressal Cell	College Union Chairman

5.3.7 How does the institution network and collaborate with the Alumni and former faculty of the Institution.

- The former faculty of the institution has constituted the ART (Association of Retired Teachers) to network and collaborate with the Institution. Rev. K. C. Mathew, the founder Principal of the College, is the patron, Prof. M. K. Cheriyan, former Principal, the President, Rev. Prof. Itty Mathew the Vice president and Prof. George M. Cheriyan the Secretary of the Association. The ART publishes a biannual magazine 'Contact' to network and collaborate with the institution. The executive committee of ART meets regularly in the Principal's office to chart out programmes. The general body of ART meets once a year, where an opportunity is provided for the former faculty to interact and pass on the values and principles on which the institution was founded to the present generation of teachers. The ART has currently undertaken the project of drafting the 'History of the College'.
- The former teachers and present staff of the College held a meeting VISION 2030 in the presence of the Manager to discuss the future plans of the institution.
- The College honored the former faculty of the College through the event "Guru Vandanam" in association with the Valedictory function of the Golden Jubilee Celebrations in 2015.
- The executive body of the Alumni Association meets regularly and programmes are charted. Annual general body is organised every year with good participation. The details on the activities of the Alumni Association are furnished in section 5.1.14

CRITERION VI: GOVERNANCE, LEADERSHIP AND MANAGEMENT

6.1 Institutional Vision and Leadership

6.1.1 State the vision and mission of the Institution and enumerate on how the mission statement defines the institution's distinctive characteristics in terms of addressing the needs of the society, the students it seeks to serve, institution's traditions and value orientations, vision for the future, etc.?

Vision: To be a centre of excellence and a catalyst in facilitating holistic development of youth with international standards, edified with the sanctity of truth, equipped to serve, grounded on Christian ideals.

Mission: To nurture the enquiring mind to be liberated by truth, empowered by knowledge, committed to service and communal harmony, championing the cause of women and the marginalized and to create a sustainable environment.

The mission statement of the College defines its distinctive characteristics in the following ways:

- The College seeks to uphold Christian values in its functioning. The uniqueness of each student is recognized.
- Value based education is imparted to students to ensure the holistic development of the individual.
- A socially inclusive College community which caters to the material and spiritual needs of students from various backgrounds.
- 70% of the students are women which bears testimony to the institution's mission of championing their cause.
- Students are encouraged to interact with the society through social extension activities like NSS, NCC and Clubs so that they become sensitive to their surroundings and evolve as responsible citizens of the nation.
- The institution realises that the future of humanity lies in sustainable development and we have an eco-friendly campus to sensitise everyone towards the need to create a sustainable environment.

6.1.2 What is the role of top Management, Principal and Faculty in design and implementation of its quality policy and plans?

- The College has a democratic and participatory Management system. The Bishop of CSI Madhya Kerala Diocese is the Manager of the College.
- The Management Board is the apex body, consisting of eleven members, including the Manager, Principal and Vice Principal.
- The Management discusses and plans all the activities to be implemented in the institution. It prepares the budget and draws upon plans to improve the quality of infrastructure, research facilities and financial management.
- The Management designs policies for the successful functioning of the institution complying with the guidelines issued by the University and the Government from time to time for the successful conduct of academic programmes.
- The Staff Council, consisting of the Principal and the Heads of Departments, suggests improvements in the design and implementation of the plans.
- The Principal, Vice Principal, IQAC and faculty members implement the plans and policies of the Management.
- The faculty cooperates and participates in all the efforts of the Principal and Management in implementing quality policy and plans.

6.1.3 What is the involvement of the leadership in ensuring:

❖ The policy statements and action plans for fulfillment of the stated mission.

- The formulation of action plan is done by the Management.
- The action plan is reviewed by the Staff Council with the active involvement of the IOAC.
- The Management ensures proper implementation of the policies through the Bursar appointed by the Management.
- The HoDs also play a major role in implementing the plans in collaboration with other faculty members of the Departments.
- The PTA meets regularly and provides suggestions for future growth and improvement.

❖ Formulation of action plans for all operations and incorporation of the same into the institutional strategic plan.

- General staff meetings are convened regularly by the Principal to discuss and formulate action plans for all operations.
- The open and democratic discussions result in improvisation of policies to be implemented.
-) Both teaching and non-teaching staff have their representatives in the different committees constituted by the Principal for materialising institutional strategic plan.

❖Interaction with stakeholders

The leadership ensures regular interaction with the stakeholders through various programmes such as:

- Induction programme for first year students
- Meeting of the Parents with the Principal, HoDs and faculty at the time of admission and during PTA meetings
- J Interaction of Principal and Vice Principal with students during general meetings and class prefects' meetings
- Interaction with alumni during alumni meetings
- The Association of Retired Teachers communicates its suggestions and opinions to the leadership
-) General staff meetings

❖ Proper support for policy and planning through need analysis, research inputs and consultations with the stakeholders

- Analysis of the present requirements is carried out by the Management Board as well as by various committees such as the Staff Council, CLMC, Research Committee, Library Committee and Hostel Committee convened by the Principal.
- The feedback obtained from the various stakeholders play a significant role in the policy formulation of the College.

❖ Reinforcing the culture of excellence and Champion organisational change

- Transparency in planning, formulating and executing policies and decentralised managerial practices have allowed innovative suggestions and recommendations to come up from all stakeholders enabling the institution to progress towards excellence.
- The Management allows the teachers to improve their academic excellence by facilitating participation in faculty development programme, orientation and refresher courses as well as participating in seminars and conferences.
- The College acknowledges the achievements of the students.

6.1.4 What are the procedures adopted by the institution to monitor and evaluate policies and plans of the institution for effective implementation and improvement from time to time?

- The meetings of the Management Board, Staff Council and IQAC monitor and evaluate policies and plan for effective implementation and improvement.
- The plans and policies are implemented only after discussions in the general staff meetings.
- The feedbacks obtained from the various stakeholders are taken into account while implementing the policies.
- The Manager conducts an Academic Audit annually to evaluate the overall performance of the institution.

6.1.5 Give details of the academic leadership provided to the faculty by the top Management?

- Academic freedom is given to the faculty provided the activities organised conform to the vision and mission of the College.
- The College encourages the faculty to nurture their skills by participating in orientation programmes, refresher courses, conferences, seminars and workshops.
- The Management supports the faculty to pursue research under the Faculty Development Programme.
- The faculty are also encouraged to pursue part time research.

- The Management organised a 'FEEL Teacher', Learning and Development Intervention Programme for the teachers of the College, which was conducted by the 'College for Leadership and Human Resource Development' (CLHRD) during 25 27 April 2013 at CMS College, Kottayam.
- The Manager and an external expert evaluate the annual academic performance during Academic Audits.

6.1.6 How does the College groom leadership at various levels?

- The open interactions and discussions of the Principal with the various stakeholders aid in better comprehension of the faculty members.
- J Staff Advisor, Staff Council Secretary, PTA Secretary, Conveners and Coordinators of committees are nominated after progressive consultations.
- The College encourages leadership among students. The NCC, NSS and various other Clubs organise events that are effectively managed by student volunteers.
- The College Union members are elected through Presidential election process.
-) Student representatives are incorporated in various committees like Library Committee, Student Affairs and Students' Grievances Redressal Cell to help them develop leadership qualities.

6.1.7 How does the College delegate authority and provide operational autonomy to the departments / units of the institution and work towards decentralized governance system?

- Academic and administrative flexibility is rendered to all Departments.
- The Departments, under the leadership of the concerned HoDs and the faculty members, are granted freedom to organise various curricular, co-curricular and extracurricular activities. Work arrangement in each Department is done by the HoD in consultation with the faculty members.
- The institution ensures the involvement of all the faculty members in the decision making process. Meetings of teachers at the College level, Department level and



sub-committees discuss various areas of concern and bring suggestions and proposals for implementation.

The NSS, NCC and various clubs have the autonomy to conduct various programmes supervised by the concerned teacher.

6.1.8 Does the College promote a culture of participative Management? If 'yes', indicate the levels of participative Management.

- The Principal is the academic and administrative head of the institution.
- The institution promotes participatory management through the Staff Council consisting of the Principal, HoDs of all the Departments and elected members from the faculty.
- The IQAC meets periodically and does the planning, and evaluation for the College.
- The faculty members are nominated to co-ordinate various club activities.
- Faculty advisors are nominated by the HoDs of the concerned Departments.
- The Principal meets the class prefects regularly to discuss the various activities.
- The College functions through the following committees promoting the culture of participative Management:

College Level Monitoring Committee (CLMC), Spiritual Empowerment Committee, HR and Event Management Committee, Publication and Documentation Committee, Research Committee, Career Guidance and Placement Cell, Counselling Cell, Anti Ragging Cell, Women's Cell, IQAC, UGC Affairs, College Union, Student Aid Fund, Library Committee, Sports Committee, Student Affairs, Discipline Committee, Book stall and Canteen Committee, EQUIP, Literary Forum, Bhoomithrasena and ENCON club, Scholarship Committee, Continuing Education, Equal Opportunity Cell, Entrepreneurship Development Club, Staff Grievances Redressal Cell, Students' Grievances Redressal Cell, Hostel Committee, Committee Against Sexual Harassment

6.2 Strategy Development and Deployment

6.2.1 Does the Institution have a formally stated quality policy? How is it developed, driven, deployed and reviewed?

- The College always tries to ensure quality in all its endeavors. The policy is rooted firmly on the fundamental concepts of social responsibility and democratic functioning.
- The policy is developed by the Management and implemented by the IQAC with the wholehearted support of the College staff.
- The Principal disburses duty and responsibility to various committees constituted within the College to execute the stated policies.
- The policy is reviewed and modified to suit the requirement of the situation with the involvement of the stakeholders, within the broad framework of its vision.

6.2.2 Does the Institute have a perspective plan for development? If so, give the aspects considered for inclusion in the plan.

Yes, the College has a perspective plan for development.

- The Management board, Staff Council and the IQAC develop perspective plans for development after consultation with faculty, students, parents and alumni.
- The aspects considered are Academic, Infrastructural, Financial, Managerial and Social Responsibility.
- The College intends to build a new academic and administrative block as part of enhancing the spatial and infrastructure facilities.
- The College submits application to the University of Kerala for commencing new academic courses every year. The College proposes to conduct more PG programmes in different disciplines and introduce job-oriented courses under self-financing mode.
- The College aspires to upgrade all PG Departments into Research Departments.

6.2.3 Describe the internal organisational structure and decision making processes.

- The authority for decision-making regarding academics and administration is the Manager. The Management Board formulates the policies and strategies to be implemented for the governance of the institution.
- The Bursar helps the Principal in coordinating the College activities.
- The Principal, supported by the Vice Principal, implements the decisions of the Management Board.
- The Staff Council and IQAC, as per the directive of the Principal, develop strategies for executing the decisions taken by the Management.
- The developed strategies are executed by the Principal in consultation with the Staff Council, IQAC and general staff meeting.

6.2.4 Give a broad description of the quality improvement strategies of the institution for each of the following:

❖ Teaching & Learning

- Apart from the traditional teaching methodology, the College fosters innovative measures to provide discrete teaching and learning experience.
- J ICT enabled teaching amplifies the learning capabilities of the learners.
- The general library with INFLIBNET academically enriches both the PG students and the faculty.
- The faculty members are always in pursuit of chiselling their skill and talents through seminars, workshops, orientation programmes and refresher courses.
- The existing teaching and learning methodology is supplemented with innovative practices such as Mentoring system, WWS, SSP and ASAP.

* Research & Development

- The College encourages its faculty to pursue research in the relevant disciplines and to publish research articles and papers in Peer Reviewed Journals.
- The faculty members undertake major and minor research projects funded by agencies like UGC, CSIR, DST and KSCSTE.

- PG student projects funded by KSCSTE are undertaken.
- The Departments of Physics and Chemistry are DST-FIST sponsored with a financial assistance of one crore rupees.
- The faculty can avail the UGC-FDP leading to PhD.
- The College encourages the Departments to conduct international/national/state level seminars/conferences/workshops by utilising financial assistance from recognised agencies.

Community Engagement

- The coordinated efforts of the various clubs, NCC and NSS units have played a pivotal role in fulfilling social responsibility by organising programmes like blood donation camps, AIDS and cancer awareness, anti drug campaign, road safety awareness and honouring the aged. (See 3.6.8)
- The Environment Club, Bhoomithrasena Club, Nature Club and ENCON Club regularly organise programmes to nurture and protect the environment.
- Ozone day is celebrated annually, creating awareness among neighbouring schools about the importance of protecting the Ozone layer.

***** Human Resource Management

- The Human Resource requirements are assessed and adequate strategies are formulated.
- The Staff Advisor, Staff Council Secretary, PTA Secretary, Conveners and Coordinators for various committees are appointed by the Principal after democratic discussions.
- The faculty members are nominated by the Principal to coordinate and supervise the activities of various clubs, NSS and NCC.
 - The potential of the office staff is tapped acknowledging their talents and skills.
 - The College Union/students are entrusted with responsibilities to organise various events.
 - The human resources of the PTA and Alumni Association are effectively utilised.

❖ Industry Interaction

- Industry interaction is obtained through the faculty engaged in active research.
- Students visit various industries and institutes as part of their study tours and also for completing project works. (See 1.1.5)
- 6.2.5 How does the Head of the institution ensure that adequate information (from feedback and personal contacts etc.) is available for the top Management and the stakeholders, to review the activities of the institution?

The required information to the top management is provided through:

- Submission of annual report to the Management Board
- Reporting by the Principal in the Management Board Meeting
- Academic Audit

The other stake holders are provided with necessary information through:

- College Handbook and Calendar
- College Website which provides relevant and updated information
- J College Newsletter
- J PTA meetings
- J Alumni and ART meetings
- Public Address System and notice boards
- **6.2.6** How does the Management encourage and support involvement of the staff in improving the effectiveness and efficiency of the institutional processes?
 - General Staff meeting is convened regularly where the teaching and nonteaching staff air their views on the conduct of various activities of the College and partake in formulation of new ones.
 - The IQAC, Staff Council and Departments play a significant role in improving the effectiveness and efficiency of the institutional process.
 - The Staff council is constituted as per University statutes in which two elected teacher representatives and administrative head are members.

	J	The various committees of the College ensure the participation of all the staff			
		members in one activity or the other.			
	J	Teachers also involve in the administrative works such as admissions,			
		examinations and supervision in infrastructure modification.			
	J	Staff tour is arranged every year.			
6.2.7 E	Enum	erate the resolutions made by the Management Council in the last year and			
tl	he sta	atus of implementation of such resolutions.			
,	The re	esolutions made by the Management:			
	Accelerate the process for NAAC Re-accreditation				
	Ĵ	Prepare building plan for Golden Jubilee Block			
	Ĵ	To apply for B.Com (Computer Applications) Course			
	Ĵ	Submit proposals to the University and Government of Kerala to start new PG			
		Courses			
	J	Appointment of regular teachers			
	Ĵ	Procurement of essential instruments and equipments			
	Ĵ	To conduct international/national seminars/workshops.			
	Imple	ementation:			
	J	NAAC Re-accreditation process has been initiated by the College.			
	J	A plan for Golden Jubilee block has been prepared			
	J	M Sc Botany and B.Com (Computer Applications) has started			
	J	Proposals have been submitted to the University of Kerala and Government of			
	ŕ	Kerala for starting M.Sc. Zoology, M.A. Malayalam, M.Com and M.Phil			
		Physics			
	J	Major instruments have been purchased under DST-FIST scheme			
	J	A number of international /national seminars/workshops have been organised			
6.2.8	Does	the affiliating university make a provision for according the status of			
		omy to an affiliated institution? If 'yes', what are the efforts made by the			

institution in obtaining autonomy?

Yes.

The institution is yet to meet the requirements laid down by the University to be accorded the status of autonomy.

- 6.2.9 How does the Institution ensure that grievances / complaints are promptly attended to and resolved effectively? Is there a mechanism to analyse the nature of grievances for promoting better stakeholder relationship?
 - The general code of conduct is the responsibility of the discipline committee which looks into any breach of conduct
 - An active Students Grievances Redressal Cell addresses the difficulties and problems encountered by the students and timely intervention is ensured
 - Women's Study Unit is constituted to address the grievances of girl students
 - A complaint box is placed which is checked periodically and issues sorted
 - The grievances of the staff are redressed by the Staff Council and Staff Grievances Redressal Cell
- 6.2.10 During the last four years, had there been any instances of court cases filed by and against the institute? Provide details on the issues and decisions of the courts on these?

There has not been any instance of court cases during the last four years.

- 6.2.11 Does the Institution have a mechanism for analyzing student feedback on institutional performance? If 'yes' what was the outcome and response of the institution to such an effort?
 - Students evaluate the learning experience through feedback forms and interaction with mentors.
 - Data collected is analysed and the suggestions/recommendations thus garnered are forwarded to the Staff Council for further action.
 - Following students' request, the Women's Centre has been given a facelift and improved amenities have been provided.

A biogas plant has been installed in the College Canteen for waste management, following student feedback.

6.3 Faculty Empowerment Strategies

6.3.1 What are the efforts made by the institution to enhance the professional development of its teaching and non-teaching staff?

(See 2.4.3)

- 6.3.2 What are the strategies adopted by the institution for faculty empowerment through training, retraining and motivating the employees for the roles and responsibilit they perform?
 - The faculty members are allowed to attend orientation courses and refresher courses conducted by ASC and other recognised educational institutions. (The details of participation of faculty in programmes related to curriculum revision and semesterisation are given in 1.1.3, the number of faculty nominated to various Staff Development Programmes is given in 2.4.3)
 - The College encourages the Departments to organise International/National/State/College level Conferences/seminars/workshops.
 - The various committees constituted for different purposes consist of experienced faculty along with young faculty, which provides a virtual training to the young faculty members.
 - Retreats/training sessions are organised for teachers. (See 2.4.3)
- 6.3.3 Provide details on the performance appraisal system of the staff to evaluate and ensure that information on multiple activities is appropriately captured and considered for better appraisal.

For assessing the performance of a teacher, the various indicators are:

-) Self Appraisal Report
- J Student feedback
- 6.3.4 What is the outcome of the review of the performance appraisal reports by the

management and the major decisions taken? How are they communicated to the appropriate stakeholders?

- Through appraisals and evaluations, the Principal personally advises the faculty members for further improvement.
- The assessment of performance helps in the improvement of faculty members in publishing articles, presenting papers, participating in workshops/seminars/conferences and to take up higher studies.

6.3.5 What are the welfare schemes available for teaching and non teaching staff? What percentage of staff have availed the benefit of such schemes in the last four years?

Welfare scheme/facility	Percentage availed
Government Schemes	100
Co-operative society	90
Canteen	50
Staff tour	75
Hostel	10
Gymnasium	20

6.3.6 What are the measures taken by the Institution for attracting and retaining eminent faculty?

- Healthy work atmosphere among the faculty and administration
- Faculty appointment as per Government norms
- Additional increments given to MPhil and PhD holders
- Retired faculty retained as UGC-Professor Emeritus
- Retired faculty revisit as resource persons for value education classes and awareness programmes

6.4 Financial Management and Resource Mobilization

6.4.1 What is the institutional mechanism to monitor effective and efficient use of available financial resources?

- The requirements of the Departments are discussed and assessed in the Staff Council meetings.
- The UGC funds are apportioned by the planning Board as per the needs of the Departments and the allocation for the respective departments under the UG and PG grants.
- J Infrastructural Development is undertaken by the Management under the direct supervision of the Bursar and Principal.
- All the expenditure incurred by the Management is audited.
- The expenditure incurred from the funds of the UGC and other Government agencies is audited by a Government auditor.

6.4.2 What are the institutional mechanisms for internal and external audit? When was the last audit done and what are the major audit objections? Provide the details on compliance.

- Well established institutional mechanisms exist for the efficient and transparent management of financial resources.
- All internal resources raised by the institution are subjected to an annual audit by qualified auditors appointed by the Management. The audited accounts are presented in the Management Board meetings for its approval, and the accounts are sent to the CSI Trust Association for its approval.
- The audited accounts relating to the PTA are presented in its Executive committee and General Body for approval.
- All external funds received from the UGC, Government and the University is audited as per the norms of the respective agency.

- The external audit of the funds received from the Government is done by a Government auditor appointed by the Directorate of Collegiate Education and the Accountant General's Office.
- The funds from the UGC are efficiently utilised and utilisation certificates along with the audited accounts are sent to the UGC.
- The accounts for the financial year 2014-15 were the last audited accounts. There were no major objections.
- 6.4.3 What are the major sources of institutional receipts / funding and how is the deficit managed? Provide audited income and expenditure statement of academic and administrative activities of the previous four years and the reserve fund / corpus available with Institutions, if any.

The major sources of institutional receipts/funding are:

Sources of funding	2011-12	2012-13	2013-14	2014-15
PTA & Development fund	20,10,950	25,84,750	35,30,000	36,13,500
CSI Dubai Parish		30790	18,924	40,000
Rent	70,000	1,32,500	75,300	70,000
Golden Jubilee fund	8,68,695	10,57,308	8,13,128	16,12,923
Sale of forms	27,150	1,49,310	1,76,682	1,90,310
Endowments	64,429	76,017	72,703	56,386
Keltron Course	9,76,995	35,000	7,50,000	5,26,925
Alumni Association	39,600	34,600	24000	37,500
Student Aid fund	1,11,610	1,12,580	89,450	1,02,600
Major Research Projects	74,81,297			
Sponsorship from recognized agencies for conferences/seminars	32,30,000			
DST-FIST		59,0	00,000	



Grants received from the UGC

Sl.No.	Items	Amount Received (Rs.)		
	XI Plan Period			
1	UG Assistance	9,20,000		
2	PG Assistance (Chemistry)	3,20,000		
3	PG Assistance (Physics)	2,00,000		
4	Infrastructure grant to NAAC Accredited Colleges	10,00,000		
5	Conveyance Allowance to students	2,40,000		
6	Stipend for students (SC/ST/OBC & minorities)	4,00,000		
7	Initiatives for capacity building	3,00,000		
8	Network Resource Centre	1,02,000		
9	Equal Opportunity Centre	1,00,000		
10	Coaching classes for entry in services	2,70,000		
11	Career and Counseling cell	1,40,000		
12	UGC Minor Projects	39,73,400		
13	Additional Assistance to Colleges	40,50,000		
	XII Plan Period			
14	General Development Assistance XII Plan	13,02,680		
15	UG Education College Dev. Assistance	2,87,500		

The deficits are managed by contributions and loan from the CSIMKD. In the financial year 2012-13 the CSIMKD provided a loan of Rs. 10 lakes to overcome the deficit.

6.4.4 Give details on the efforts made by the institution in securing additional funding and the utilisation of the same (if any).

- Golden Jubilee fund of Rs. 43, 52,054 was raised from teachers, alumni, former faculty and the general public, which was utilised for Golden Jubilee projects and jubilee related expenditure.
- Alumni Association contributed Rs. 2, 50,000 for the construction of the Golden Jubilee Gate and the Security Room.

Endowment funds are added whenever possible.

Teachers contribute about one lakh rupees annually to the Student Aid Fund.

6.5 Internal Quality Assurance System (IQAS)

6.5.1 Internal Quality Assurance Cell (IQAC)

a. Has the institution established an Internal Quality Assurance Cell (IQAC)? If 'yes', what is the institutional policy with regard to quality assurance and how has it contributed in institutionalizing the quality assurance processes?

Yes. The College has established an Internal Quality Assurance Cell (IQAC) in order to fulfill the institutional quality policy.

The Internal Quality Assurance Cell designs the quality parameters and ensures that the standards of excellence reflected in the vision and mission of the College are met and continued.

b. How many decisions of the IQAC have been approved by the management / authorities for implementation and how many of them were actually implemented?

The decision by IQAC to organise international/national seminars/conferences/workshops, to obtain feedback and evaluation from the students were approved by the Management.

c. Does the IQAC have external members on its committee? If so, mention any significant contribution made by them.

Yes, the IQAC has Prof. George M. Cherian, former Professor and Head, Department of Economics as an external member. Being closely associated with the growth of the institution, he makes constructive suggestions and provide feedback on the institution.

d. How do students and alumni contribute to the effective functioning of the IQAC?

IQAC gathers input from alumni and student feedback for policy formulation and implementation.



e. How does the IQAC communicate and engage staff from different constituents of the institution?

The IQAC Convener is a member of all the committees in the College. The IQAC has representatives from all Departments and administrative staff in addition to the formal IQAC members. This ensures constant integration with IQAC and staff. Besides, IQAC interacts with the Staff Council frequently. All the policies and decisions of the IQAC are communicated to the staff and their feedback /comments are obtained.

6.5.2 Does the institution have an integrated framework for quality assurance of the academic and administrative activities? If 'yes', give details on its operationalisation.

The Principal is the academic and administrative head of the institution.

The Staff Council and IQAC assist the Principal for quality assurance of the academic and administrative activities.

There are several other committees consisting of representatives from the teaching and non-teaching staff, to formulate strategies for implementing the decisions formulated by the Principal.

The quality of academic activities is assured through teachers' work diary, internal examinations, continuous assessment, mentoring system, PTA meetings and feedback from students and parents.

The quality of administrative activities is assured through Management Board meetings, General Staff meetings and regular external audits.

6.5.3 Does the institution provide training to its staff for effective implementation of the Quality assurance procedures? If 'yes', give details enumerating its impact.

Yes. The institution has provided training/workshops to the staff on CBCSS, introduction of open courses and MS Office.

The IQAC of the College conducted a NAAC sponsored National Seminar on 'Emerging Dimensions of Quality in Higher Education' in which Shri. T. P. Srinivasan, Former Ambassador and Chairman of the Kerala State Higher Education

Council delivered the Keynote address. NAAC Deputy Director Dr. M. S. Shyamasundar addressed the participants in which he stressed on the emerging quality parameters in the field of Higher education. Various papers were presented to improve the teaching practices and supplement the curriculum.

The College organised a one-day orientation programme for teachers on "Psychological Aspects of Teaching & Learning".

Training is also provided to the administrative staff in connection with office automation and improving the technical skills.

Quality management parameters like SPARK and Kerala University Exam Portal are implemented in the College administrative office for salary disbursement and student affairs including admission procedures.

The College also organised a one-day programme viz. VISION-2030 - attended by the Manager, management representatives, retired faculty members, current faculty members and non-teaching staff – to plan for the development of the College.

6.5.4 Does the institution undertake Academic Audit or other external review of the academic provisions? If 'yes', how are the outcomes used to improve the institutional activities?

The institution conducts Academic Audit annually. All the HoDs present the activities and achievements of their Departments. Constructive criticism is offered by the Manager, representatives of the Management Board and external experts. The suggestions for improvement are implemented from time to time.

6.5.5 How are the internal quality assurance mechanisms aligned with the requirements of the relevant external quality assurance agencies/regulatory authorities?

The IQAC is constituted as per the guidelines provided by the NAAC.

- AQAR is submitted annually
- By setting benchmarks aligned with the external quality assurance agencies.

6.5.6 What institutional mechanisms are in place to continuously review the teaching learning process? Give details of its structure, methodologies of operations and

outcome.

- The Staff Council, CLMC and DLMC continuously review the teaching learning process.
- The CLMC consists of the Principal, Vice Principal, IQAC Co-ordinator and HoDs of all Departments. The DLMC consists of the HoD and all faculty advisors.
- The CLMC meets regularly to plan the conduct of internal examinations, discuss relevant issues and analyse exam results.
- The decisions of the CLMC are conveyed to other faculty members through DLMC.
- The criteria for continuous assessment viz. Attendance, Assignment and Internal examination aid in reviewing the teaching learning process.
- Parent Teacher meetings are convened at the Department level to discuss the performance of students. Suggestions are also given for their improvement.
- The IQAC prepares necessary formats such as teaching plan, feedback form.
- The yearly academic audit conducted by the Management reviews the overall performance.

6.5.7 How does the institution communicate its quality assurance policies, mechanisms and outcomes to the various internal and external stakeholders?

The College communicates its quality assurance policies, mechanisms and outcome to the various internal and external stakeholders through

J	the College Handbook and Calendar
J	College Website
J	Staff Council meetings and General Staff meetings
J	Induction Programme for first year students
J	PTA and Alumni meetings
J	College Newsletter
J	Public Address system and notices





CRITERION VII - INNOVATIONS AND BEST PRACTICES

7.1 Environment Consciousness

7.1.1. Does the Institute conduct a Green Audit of its campus and facilities?

Environment consciousness is a value nurtured by the Bishop Moore College community since its inception. The College has been taking several measures to keep the campus environment friendly. It has initiated a Green Audit and has taken the following measures in this regard:

- Stock taking of the plants in the campus. About 86 plant species were identified and documented.
- Preservation of rare and endangered plants both *in-situ* and *ex-situ*.
- A group of students and teachers have conducted an Eco Audit of the College campus.
- 'A Green Campus', a book with exclusive photographs gives an insight on the plants in the College campus. A forty year old Greenhouse is a model to uphold.

7.1.2. What are the initiatives taken by the College to make the campus eco-friendly? (Energy conservation, Use of renewable energy, Water harvesting, Check dam construction, Efforts for Carbon neutrality, Plantation, Hazardous waste management, e-waste management etc.)

The initiatives taken by the College to make the campus eco-friendly are:

A. Energy conservation and Use of renewable energy

- Switching over to energy-efficient Compact Fluorescent Lamps (CFLs).
- Copper chokes in tube lights converted to electronic chokes to minimise consumption of energy.

- The use of equipments with five star rating of minimum energy consumption.
- Energy saving fans used in new laboratories and classrooms.
- Organizing awareness programmes on energy conservation.
- Observation of 'electricity saving day' has educated the stakeholders of the danger of natural resource depletion and the need for energy conservation.
- Tapping solar energy for use in the Seminar Hall during power failures.
- Water supply available throughout the year due to rain water harvesting.

B. Water harvesting and Vegetation

- Rain water harvesting done effectively in the campus.
- Two rain water harvesting tanks in the campus.
- Soak pits are provided around the buildings to harvest rain water. The ground water recharging system ensures a steady level of water in the wells.
- The vegetation cover prevents erosion of top soil, keeping the land fertile.
- Assessment conducted regarding the drinking water quality of well water in Kallumala.

C. Efforts in the direction of carbon neutrality

- Planting saplings in the campus periodically.
- Organising seminars, workshops, exhibitions, consultations and awareness programmes.
- The Eco Club offers a platform for students to discuss environment issues.
- Classes on carbon neutrality, conducted by external experts add to the environment education. A talk by Dr. Athira O, Assistant Professor, Amrita School of Biotechnology on 'A Move towards Carbon Neutrality' on 24th November 2015.
- Use of public conveyance and car pooling, shared autos encouraged.



Maintaining rich greenery ensures effective sequestering of the carbon emissions.

D. Hazardous and E-waste Management

- Hazardous wastes are not permitted to spread into the surrounding water and soil. They are safely disposed or buried deeply, according to the intensity of hazards.
- Soak pits are built for discharging waste water from laboratories.
- Hazardous chemicals like Ethidium Bromide are neutralised using decontaminating solutions before disposal.
- Lab assistants of handling hazardous chemicals are trained to use them efficiently and to control spillage, if any.
- Computers, printers and other ICT equipments are purchased via buy back offers.
- Useful parts of damaged equipments are reused wherever possible.
- Pen drives are recommended in place of CDs for data storage.
- No major E-waste is generated.

The initiatives of the College towards environment sensitization are detailed in section 2.2.4.

Innovations

7.1.3. Give details of innovations introduced during the last four years which have created a positive impact on the functioning of the College.

During the last five years, the College has introduced several innovations such as teaching through activities like exhibitions and quiz competitions. ICT enabled teaching and learning supported by smart class rooms has catered to the needs of the



students. Printed documents circulated annually create awareness of the curricular and co curricular activities of the College.

Two avenues of innovation are to be noted:

(i) Innovative Teaching Methods:

Effective teaching is implemented through exhibitions, documentary films and dramas, thereby interacting with students from neighbouring schools and Colleges. As part of the Golden Jubilee Celebrations of the College, every Department conducted an exhibition, related to their various fields of study. These extension activities invited huge response from the neighbouring schools and Colleges as they visited the exhibitions and participated in the various competitions held.

Annual Inter Collegiate and Inter School Competitions conducted:

- ➤ Prof. PU Jacob Inter Collegiate Quiz Competitions conducted by the Department of English
- Prof. Johnson Memorial Quiz Competitions conducted by the Department of Economics
- ➤ Inter School Painting Competitions conducted by Science Club, promoting Environment consciousness
- ➤ Inter School Science Quiz Competition conducted by the Department of Chemistry.
- Laurel Literaria: Annual English fest promoting drama and literary competitions.
- J Interface with authors and creative writers: conducted by the Department of English
- Industrial Visits: Detailed list is furnished in Section 1.1.5
 - Library Visits: Dept. of English

- **Documentary Film**: Importance of Protecting the Ozone Layer was shown to two schools, B. H. Higher Secondary School, Mavelikara and Government School, Varenickal.
- Teaching through **Exhibitions**: Exhibitions were conducted as part of Golden Jubilee Celebrations.
- Smart Class Rooms facilitating IT enabled teaching: A few classrooms were modified into smart classrooms facilitated with computers, laptops and LCD projectors and are frequently used in the teaching learning process. CDs are used to teach language skills to students. (Log book is maintained in the Departments). Interactive boards are used in the Departments of Economics and Chemistry.
- Lecture workshops: Science Academies' Lecture Workshops on "Non-linear Dynamics and Chaos" (21-22 January, 2015) and "Spectroscopic Techniques and Applications" (11-13 November 2015) were hosted for M.Sc students.
- **Department Association activities**: As part of the Association activities, every Department conduct invited lectures.
- **Peer teaching** is done efficiently in the College. Some examples are:
 - Vishnu Rajendran, M.Sc Physics student, conducted a presentation for the whole College on the topic, 'A Tribute to Dr. APJ Abdul Kalam'
 - ➤ PG Entrance Coaching by MA English students for Final Semester Degree students.
 - ➤ NET Qualified and Entrance cleared Alumni of the Department of English give Orientation Classes for UG and PG students.

(ii) Malayalam Wikipedia

Malayalam, the language of Kerala, had been accorded the status of classical language in 2013. Malayalam Wikipedia, the Malayalam language edition of Wikipedia, has been in use since 2002. The number of articles in Malayalam



Wikipedia, only 30,000 in number, became a matter of concern among the students of Bishop Moore College. The result of this was a unique effort by them. They wholeheartedly cooperated to contribute new articles to the Malayalam Wikipedia. This has enriched the Malayalam Wikipedia to a great extent. The result of this innovation is an academic venture which has motivated the students of Bishop Moore College to create and edit articles on their own.

(iii) Publications:

- The Publication Committee of the College brings out an annual College Handbook and Calendar which gives information regarding the courses offered, objectives of the College and phone numbers of all the staff members of the College.
- The **College Newsletter** gives a record of the activities of the College and the publications, presentations and achievements of the faculty every year.
- Golden Jubilee Souvenir was published, recording the history of the College till date and collecting articles from over sixty distinguished alumni from all over the world.
- The book 'Bishop Alfred Livingstone Moore' and the book on the flora of the College, 'Green Campus' add to the plethora of communication from the College.
- Class Manuscript magazines/newsletters are published by students. (Details provided in section 5.3.4)
- Wall journal: 'Parietal Reflections' is published by the students of the Department of English.
- Vidyasarith is the Annual Students' Magazine brought out by the College Union.



'Contact' is the magazine published by the ART Association. (Details provided in section 5.3.7)

Best Practices

7.1.4. Elaborate on any two best practices as per the annexed format (see page) which have contributed to the achievement of the Institutional Objectives and/or contributed to the Quality improvement of the core activities of the College.

The College follows several practices such as morning prayer song and prayer in the Principal's office, weekly worship service by the College Chaplain, good teacher-student relationship, student-centred learning, mentoring programme, academic audit, cultural celebrations and competitions, provision of internet access to students, optimal use of ICT facilities, maintaining a learner friendly campus and effective network with alumni.

The two specific best practices are:

- (1) **Mentoring** for holistic growth under which a group of students meet periodically under a faculty advisor and discuss various issues.
- (2) **Student Aid Fund (SAF)** collected through the contributions from teachers, provide free lunch, study materials, medical help, financial help for study tours and other need based assistance to students.

I. MENTORING FOR HOLISTIC GROWTH

1. Title of the Practice

Mentoring for Holistic Growth

2. Goal of the Practice

Bishop Moore College believes that education is a holistic experience and that the students entrusted to our care would inculcate positive values in life and use them to become responsible citizens.

The practice aims to help students in the following ways:

- Equip them as responsible citizens with positive thinking and matured civic sense.
- Enhance their skills so that they can learn to look upon themselves in a new way.
- Explore current issues so as to create awareness among them.
- Express a changed perspective towards the society.
- Evolve new levels of action in their way of life.

3. The Context

The changing value systems in the family and society have put pressure on students and teenagers resulting in many psycho-social issues. Besides, wide range of disparity among students in terms of financial and social status pose challenges on their holistic development. The conventional class room setting dissuades the students from opening up their mind. Significance of interdependence of an individual with fellow beings, society and the environment are not imbibed by the students as part of the present curriculum.

All these resulted in discord in a congenial academic environment. Students who are subject to these challenges were often found to show lack of interest in listening and completing their academic responsibilities. The inability of students to mingle with



fellow students of different socio-economic backgrounds brought about poor group dynamics in the classroom settings which ultimately weakened the extra-curricular activities. Increasing absenteeism and expression of a rebellious character towards disciplining were also the related challenges. It was in this context that 'mentoring for holistic growth' was introduced.

4. The Practice

- Thirty to fifty students from a Department are placed under the guidance of a teacher who acts as the mentor. There is a Mentees' Chronicle in which the list of the mentees and the personal details of the student are noted. The mentor gets to know each student personally and extends needed support. The increase in rapport with the mentor encourages them to share their issues. The needs and problems of the students, whether curricular, extra-curricular, personal, psychological or social, are identified and dealt with. The students who require specific psycho-social support are referred to professional counsellors. Mentors motivate high achievers to pursue higher studies.
- Parent teacher meetings are held to discuss the progress of the students. The academic progress is monitored by evaluating the continuous assessment of the student.
- The mentor tries to assess the financial situation of each student and is able to refer a student to the Student Aid Fund program if his/her need is found genuine.
- Training programmes for mentors are conducted by eminent counsellors.
- A unique system of the College is that the mentor remains the same for a student during the whole tenure of his/her program in College. This has been proved effective as the mentor gets to know his mentee quite well and is able to mould the student in all areas of his/her life.

5. Evidence of Success

The practice of mentoring has proved to be of great success. The students share their needs to the teachers, thereby leading to an improved teacher-student relationship.

Improved student participation in group/extra-curricular activities is achieved as a result of the constant encouragement and support of the mentor.

Students are taken on a tour outside the state, at the end of their course of study, to give them an exposure to the experiences of our multi-faceted country. For most of the students, this is a first time experience outside the confines of their own home. This caters to the development of their personality to a great extent.

The bond formed between the mentor and the mentees is so strong that the mentees maintain the relationship even after they leave the College. This helps the mentor to help them in different walks of life too. This system, in a way, strengthens the College Alumni Association also.

6. Problems Encountered

- Insufficiency of time is the major constraint in the implementation of the programme. The introduction of CBCSS and the resultant increase in the academic work leave the teachers with less time for activities beyond the curriculum. The students too are in a similar position.
- The duties of the teachers outside the campus for examination, valuation and training, reduce the effectiveness of group wise meeting.

7. Resources Required

- A positive attitude required for the implementation of the system.
- Judicious use of time for mentor mentee interactions.

8. Note



The effectiveness of the mentoring system is directly related to the skill of the teacher in encountering the psycho-social issues of the student. Therefore, the teachers are to be given training for basic counselling skills, so as to enable them to show empathy and win their confidence.

9. Contact Details

1	Name of the Principal	Dr. Sabu George
2	Name of the Institution	Bishop Moore College
3	City	Mavelikara
4	Work Phone	0479-2303260, 230320
5	Fax	0479- 2303230
6	Pin Code	690 110
7	Accredited Status	B with a CGPA of 2.81 (2010)
8	E-mail	bpmoorecollege@gmail.com
9	Website	www.bishopmoorecollege.org
10	Coordinator of the programme	Dr. Ranjith Mathew Abraham
11	Mobile	09447958509
12	Email	rnjthabraham@yahoo.co.in

II. Student Aid Fund (SAF)

1. Title of the Practice

Student Aid Fund (SAF)

2. Goal

Student Aid Fund (SAF) is collected through the voluntary contributions from teachers and this provides free lunch, study materials, medical help, financial help for study tours and other need based assistance to students.



3. The Context

Most of the students come from economically poor background and their financial resources are limited. When the fact was known that students were skipping their meals, the members of the faculty decided to contribute and to come up with this Student Aid Fund.

4. The Practice

Individual contributions are received from teachers or deducted from their salary every month as per their request and this is collected and distributed according to the need of the students. Needy students are identified by their mentors and their names are handed over to the teacher in charge of the SAF. He hands over the food coupons, needed money or study materials, as the case may be. No public mention is made so as to maintain the anonymity of the student.

5. Evidence of Success

- The number of the students availing this fund is on the increase.
- Teachers are increasing their contribution to meet the demand.

6. Problems Encountered and Resources Required

The successful implementation of this scheme faces problems such as:

- J Identifying deserving students.
- More resources need to be tapped.

7. Notes

The programme is implemented with the active involvement of the teachers. As the need is on the increase, all the stakeholders - the students, parents, teachers and the management – have to be made aware of such a programme.



F. EVALUATIVE REPORTS OF THE DEPARTMENTS

Note: The format for Department evaluation has been modified and entries have been reduced to a minimum. This is to avoid repetition of data given in the criteria-wise report, as instructed in the NAAC guidelines.

EVALUATIVE REPORT OF THE DEPARTMENT OF CHEMISTRY

1. Name of the Department : **Department of Chemistry**

2. Year of establishment : 1978

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B Sc Chemistry
 - M Sc Analytical Chemistry
 - Ph D in Chemistry
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B Sc Chemistry with
 - Physics and Mathematics as complementary courses
 - English, Malayalam and Hindi as common language courses
 -) Open courses conducted by all other Departments
- 5. Annual/semester/choice based credit system (programme wise):

B Sc Chemistry

Semester with Choice-Based Credit and Semester System (CBCSS)

M Sc Analytical Chemistry - Semester System

- 6. Participation of the Department in the courses offered by other Departments:
 - Complementary Course in Chemistry offered to
 - B Sc Physics, B Sc Botany and B Sc Zoology programmes.
 - Open Course (Essentials of Chemistry) for semester 5 students of other Departments.
- 7. Courses in collaboration with other Universities, industries, foreign institutions, etc.: Nil



Nil

- 8. Details of courses/programmes discontinued (if any) with reasons
- 9. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	2	2
Assistant Professor	7	6

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ Ph.D/M Phil etc.)

Sl. No.	Name of the Staff	Qualification	Designati on	Specialization	Expe rienc e	No. of Ph D students guided
1.	Dr. Laly A. Pothan	M Sc, B Ed, M Phil, Ph D, FRSC	Emeritus Professor	Polymer Nanocomposites	34	12
2.	Jessy Anu Philip	M.Sc., B Ed, M Phil	Associate Professor and HoD	Polymer Nanocomposites	17	Nil
3.	Dr. Sherely Annie Paul	M Sc, B Ed, M. Ed., Ph D	Associate Professor	Polymer composites	20	Nil
4.	Siji K. Mary	M Sc, B Ed	Assistant Professor	Polymer Nanocomposites	5	Nil
5.	Rekha Rose Koshy	M Sc, B Ed	Assistant Professor	Polymer Nanocomposites	5	Nil
6.	Deepa Thomas	M Sc, B Ed	Assistant Professor	Drug delivery using biopolymers	4	Nil

7.	Abha K.	M Sc	Assistant Professor	Nanomaterials	4	Nil
8.	Linda E. Jacob	M Sc	Assistant Professor	Nanomaterials	3.5	Nil
9.	Bessy Mary Philip	M Sc	Assistant Professor	Computational Chemistry	2	Nil
Tem	porary Faculty					
10.	Kavitha S.	M Sc, B Ed	Guest Faculty	Organic synthesis	1	Nil
11.	Dr. Reshmy R.	M Sc, Ph D	Guest Faculty	Supramolecular chemistry	1	Nil

11. List of senior visiting faculty

Dr. Laly A. Pothan

- 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty
 - B Sc Chemistry- 30 % M Sc Analytical Chemistry- 25 %
- 13. Student Teacher Ratio (Programme wise)
 - B Sc Chemistry- 15:1 M Sc Analytical Chemistry- 4:1
- 14. Number of academic support staff (technical) and administrative staff: sanctioned and filled
 - Support /Technical staff: Sanctioned- 4 Filled- 3
 - Administrative staff : Nil
- 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG. as highest Degree

Qualification	No. of Faculty
PG	7
M Phil	1
Ph D	3

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.

- National 5
- International Nil
- Total Grants received ₹ 7,60,000/-

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Abha K.	Synthesis, characterisation and bioconjugation of rare earth complexes embedded silica nanoparticles. (2013 - 2015)	₹ 1,50,000/-	UGC
Deepa Thomas	Preparation of Metal cross linked Alginic acid Beads as a carrier for poorly water soluble drugs. (2014 - 2016)	₹ 1,60,000/-	UGC
Rekha Rose Koshy	Environment friendly green plastics based on Soy protein isolate and castor oil (2015-2017)	₹ 1,50,000/-	UGC
Siji K. Mary	Preparation and characterisation of Chitin Nano Fibers/Starch composites (2015- 2017)	₹1,50,000/-	UGC
Linda E. Jacob	A novel green synthesis of Silver Nanoparticles using <i>Tagetes Erecta</i> flower and <i>Aloe vera</i> leaf extracts. (2015-2017)	₹ 1,50,000/-	UGC

- 17. Departmental projects funded by UGC, DST-FIST, DBT, ICSSR etc.; and total grants received
- Total Grants received **₹** 13, 02,000/-

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Major Research Proje	ct		
Dr. Kurien Thomas K.	Effective vulcanization studies on natural/reclaimed rubber with a series of novel thioureas and thiazoles (2009-2012)	₹ 7,27,000/-	UGC
Dr. Sherely Anne	Development of low density polyethylene/		

Paul	cellulose microfibril composites (2009-2012)	₹3,65,000/-	UGC			
Minor Research Project	Minor Research Project					
Jessy Anu Philip	Preparation of starch nanocrystals from various sources (2011-13)	1,00,000/-	UGC			
Dr. Laly A. Pothan	Biodegradable Soy Protein for potential applications (2011-13)	₹ 1,10,000/-	UGC			

- **DST-FIST:** Sanctioned Rs 1,00,00,000/- in association with Department of Physics and received Rs 59,50,000/- as first installment.
- 18. Research Centre/facility recognized by the University
 - The Department of Chemistry is an approved research centre of University of Kerala (2009)

19. Publications:

Publications per faculty

Name	No: of articles	No: of book chapters
Dr. Laly A. Pothan	19	21
Dr. Sherely Annie Paul	3	1
Siji K. Mary	1	3
Rekha Rose Koshy	1	3
Deepa Thomas	0	1
Abha K.	1	0
Linda E. Jacob	1	0
Bessy Mary Philip	0	1

- Number of papers published in peer reviewed journals (national/international) by faculty and students: 28
- Number of publications listed in International Database: 28
- Publications in Seminar/Workshop Proceedings: 10



Chapters in Books: 22

■ Books edited: 3

Books with ISBN/ISSN numbers with details of publishers: 3

SNIP: 1.662SJR: 1.239

■ Impact factor: **2.686**

- 20. Areas of consultancy and income generated : Nil
- 21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....

Dr. Laly A. Pothan

- 22. Student projects
- a) Percentage of students who have done in-house projects including inter Departmental/

Programme: Final Year B Sc Chemistry students (100%)

Final Year M Sc Analytical Chemistry students (90%)

b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

Final Year M Sc Analytical Chemistry students (10%)

- 23. Awards/recognition received by faculty/Students
 - **Ph D** awarded by University of Kerala to **Saumya S. Pillai** (Research Scholar) in 2015
 - Campus placement at Wipro in 2014 for Hema S. and Lakshmi Prasad (Final year B Sc students)
 - **GATE** Exam 2014 qualified by **Surya Suma Kuttan** (M Sc Student)
 - **Ph D** awarded by University of Kerala to **Prof. Girija N.** (Research Scholar) in 2014
 - **Ph D** awarded by Mahatma Gandhi University to **Eldho Abraham** (Research Scholar) in 2014
 - Three month academic visit by **Deepa B.** (Research Scholar) on a collaborative project to **Lulea University of Technology, Sweden** in 2014
 - Senior Research Fellowship (SRF) awarded to Deepa B. (Research Scholar) by CSIR in December 2013



- Post-Doctoral FellowshiPGranted to Dr. Eldho Abraham by Hebrew University, Israel in 2013
- Emeritus Fellowship awarded to Dr. Laly A. Pothan (Former HoD of Chemistry) by UGC in 2013
- Dr. Laly A. Pothan is admitted as a Fellow of the Royal Society of Chemistry (FRSC) in 2012
- **PhD** awarded by University of Kerala to **Reshmy R.** (Research Scholar) in 2012
- PhD awarded by Kalasalingam University, Tamil Nadu to Bibin Mathew Cherian (Research Scholar) in 2011
- 24. List of eminent academicians and scientists/visitors to the Department
 - Dr. S. S. Bhagawan (Aita Vishwa Vidyapeetham, Coimbatore)
 - Prof. V. N. Rajasekharan Pillai (Executive Vice-President, KSCSTE)
 - Dr. Sabu Thomas (M. G. University, Kottayam)
 - Dr. Kuruvilla Joseph (IIST, Thiruvananthapuram)
 - Dr. C. P. Reghunadhan Nair (VSSC, Thiruvananthapuram)
 - Dr. Soney C. George (Amal Jyothi College of Engineering, Kanjirapally)
 - Dr. T. S. Anirudhan (University of Kerala, Thiruvananthapuram)
 - Dr. S. Chandrasekharan (IISc, Bangalore)
 - Dr. G. Unnikrishnan (NIT, Kozhikode)
 - Dr. Geethamma V. G. (M. G. University, Kottayam)
 - Dr. Sachidanandan P. (Forensic Science Lab, Kollam)
 - Dr. K. E. George (CUSAT, Kochi)
 - Dr. Thomas Kurian (CUSAT, Kochi)
 - Dr. Ebie M. Sam (Max Planck Institute for Polymer Research, Mainz, Germany)
 - Dr. Rachel Mathew (CMS College, Kottayam)
 - Dr. M. Padmanabhan (IISER, Thiruvananthapuram)
 - Dr. A. Salahuddinkunju (Retd. Professor, University College, Thiruvananthapuram)
 - Dr. S. Murugan (Retd. Professor, S T Hindu College, Nagercoil)
 - Prof. S Syamchand (University College, Thiruvananthapuram)
- 25. Seminars/Conferences/Workshops organized and the source of funding (National/International)



Title of the Seminar	Source of funding
National Seminar on 'Recent Trends in General Chemistry' (2014)	KSCSTE
National Seminar on 'Green Materials' (2013)	UGC, KSCSTE

26. Students Profile programme/course wise

Name of the Course	e Applications Received		Select	Enro	olled	Pass
			ed	M	F	Percentage
B Sc Chemistry (2012-13)	CAP	2278	34	11	23	76
B Sc Chemistry (2013-14)		2040	30	9	21	Ongoing
B Sc Chemistry (2014-15)		2380	34	6	28	Ongoing
M Sc Chemistry (2013-14)			10	1	9	90
M Sc Chemistry (2014-15)	CAP		10	3	7	Ongoing
UGC sponsored Career Oriented Course			21	3	18	100

*M = Male *F = Female

27. Diversity of students

B Sc	% of students from the State	% of students from other state	% of students from abroad
2013	87	13	-
2014	93	7	-
2015	94	6	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

NET : 2 GATE : 1

29. Student progression:

Student progression	Against % enrolled
UG to PG	45-50%
PG to Ph D	2%
Ph D to Post-Doctoral	2%
EmployedCampus selectionOther than campus recruitment	2% 20-25%
Entrepreneurship/Self Employment	5-10%

30. Details of infrastructural facilities

a) Library : With 100 books and 10 Journals

b) Internet Facility for staff and students: Internet connection with Wi-Fi

facility is available in the

Department and research lab

c) Class Room with ICT facility : One

d) Laboratories : Spacious and well equipped,

separate laboratories for Research, PG, UG and allied courses provided with convenient

working tables.

31. Number of students of the Department getting financial assistance from College/University/Government/other agencies

College

Students Aid Fund - 3

University

University merit Scholarship - 1

Government

Higher Education Council Scholarship - 1

SC/ST - 15

KPCR - 12

OBC Non-creamy layer - 21

- 32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.
 - Talk on "Soft Lithography" on 19 February 2014, by Dr. Geethamma V. G., Fulbright Fellow, University of Illinois, USA, Royal Society International Postdoctoral Fellow, Cavendish Lab, University of Cambridge, UK
 - Talk on "Starch Nano-crystal Reinforced Bionanocomposites" by Rajisha R., Ph D scholar, M. G. University, Kottayam, on 28 February 2014
 - Talk on "Bio-based Polyurethanes from Vegetable Oils" on 13 January 2014 by Prasanth Kumar S., Research Scholar, Trent University, Canada
 - Talk on "Mendeley Software A possible solution for our messed up bibliography" by Rubie M. Sam, Research Scholar, Agro Paris Tech, France on 18 March 2014
 - Talk on "Factors affecting adhesion of food gels on solid surfaces" by Rubie M. Sam, Research Scholar, Agro Paris Tech, France on 24 January 2014
 - Talk on "Make no bones about the role of RunX2 in Vascular calcification" by Anne Pavitra Jacob, Ph D research scholar, Cardiovascular Department, Kings College, London on 18 September 2013
 - Chemistry Association inauguration held on 1 August, 2014 Dr. P. Sachidanandan, Asst. Director, Forensic Science Laboratory, Kannur
 - Talk on "Plastic Awareness" for primary school students held as part of extension activities on 23 October by Pavithra V. Prabhu, final year B. Sc student
 - Inauguration of add-on course, "Polymer Nano Composites" on 4 March, 2015 by Dr. Soney C. George, Associate Professor, Amal Jyothi College of Engineering, Kanjirapally.
- 33. Teaching Methods adopted to improve student learning:

UG	PG
 Lecture Method 	 Lecture Method
 Assignment and Seminar 	Assignment and Seminar
 Group Discussion 	 Group Discussion
Power point presentation	 Power point presentation

- Project Work
- Problem Solving
- Practical sessions with demo
- Participation in Seminars
- Use of internet for assignment preparation
- Remedial classes for slow learners

- Field Visit
- Project Work
- Problem Solving
- Practical sessions with demo
- Participation in Seminars, Conferences and Workshops
- Use of internet for assignment preparation
- Peer Learning

34. Participation in Institutional Social Responsibility (ISR) and extension activities

- Chemistry exhibitions as part of National Science Day Celebrations (2014, 2015)
- Work Shop on "Microscale Analysis" for PG and UG students from nearby colleges (2014)
- Awareness class on the topic "Plastic Free Mavelikara" for school students (2014)
- Inter-Department quiz competition (2014)
- Organized National Conferences (2013, 2014)
- 100 lecture series in neighbouring schools as part of the International Year of Chemistry celebrations (2011)
- Participation of students in NCC, NSS and other Club activities
- Active participation in inter-collegiate science quiz competitions
- Study tours and field visits for UG and PG students every year
- Dr. Sherely Annie Paul has served as the Chief Superintendent for University Exams (2012-2015)
- Linda E. Jacob (Assistant Professor of Chemistry) is serving as the NSS Programme Officer from 2014 to 2017.

35. SWOC analysis of the Department and future plans

Strengths

- ✓ Dedicated teaching and non-teaching faculty with good team work which facilitates productivity
- ✓ Hardworking and co-operating students
- ✓ Good performance by UG and PG students in University exams
- ✓ More faculty members involved in research compared to previous years
- ✓ High impact publications and presentations of research papers in international journals and conferences by faculty and research students
- ✓ Recognitions and awards received by faculty and research students at national and international levels
- ✓ Well-equipped laboratories for UG and PG students

Weaknesses

- ✓ Low pass ratio for students appearing for NET, SLET and GATE examinations
- ✓ Less number of students getting selected at campus recruitments
- ✓ Lack of modern classroom facilities

Opportunities

- ✓ Availability of research facilities within the Department
- ✓ Higher career options for Chemistry students in the field of forensic science, quality control and sample analysis labs.

Challenges

- ✓ Need for more permanent staff members
- ✓ Necessity for improved classroom facility
- ✓ Creating research aptitude among students
- ✓ Semester duration is often too short to cover the syllabus



EVALUATIVE REPORT OF THE DEPARTMENT OF PHYSICS

1. Name of the Department :	Department of Physic	ics
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2. Year of establishment : 1967

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B Sc Physics
 - M Sc Physics
 - Ph D in Physics
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B Sc Physics with
 - Mathematics and Chemistry as complementary courses
 - English, Malayalam and Hindi as common language courses
 - Open courses conducted by all other Departments
- 5. Annual/semester/choice based credit system (programme wise):

B Sc Physics

Semester with Choice-Based Credit and Semester System (CBCSS)

M Sc Physics

- Semester system
- 6. Participation of the Department in the courses offered by other Departments:
 - Complementary Course in Physics offered to
 - J B Sc Mathematics, B Sc Chemistry programmes
 - Open Course (Astronomy and Astrophysics) for semester 5 students of other Departments.
 - Add-On Course on "Web designing and Office Automation" attended by students from Physics, Mathematics, Chemistry, Commerce.
- 7. Courses in collaboration with other Universities/industries/foreign institutions etc. : Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of Teaching posts



Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	2	2
Assistant Professor	6	6

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

Sl. No	Name of the Staff	Qualification	Designati on	Specialization	Exper ience	No. of Ph D students guided
1.	George Mathew	M Sc, M Phil, B Ed	Associate Professor and HoD	Nano Ceramics	32	Nil
2.	Dr. Thomas Kuruvilla	M Sc, M Phil, Ph D	Associate Professor	Theoretical physics- Nonlinear dynamics	32	Nil
3.	Dr. Sajan D.	M Sc, B Ed, M Phil, Ph D	Assistant Professor	SERS and Vibrational spectroscopy	6	7
4.	Lynnette Joseph	M Sc, B Ed	Assistant Professor	Raman Spectroscopy	6	Nil
5.	Merin George	M.Sc.	Assistant Professor	Vibrational Spectroscopic studies of NLO materials	5	Nil
6.	Jerin Susan John	M.Sc.	Assistant Professor	Z-Scan studies and Vibrational Spectroscopy	5	Nil
7.	Dr. Arun Aravind	M Sc, Ph D	Assistant Professor	Material Science	1	Nil
8.	Javeesh Alex	M Sc, B Ed	Assistant Professor	Nanoparticle research	1	Nil

- 11. List of senior visiting faculty: Nil
- 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

B Sc Physics - 11 %

M Sc Physics - 0 %

13. Student Teacher Ratio (Programme wise)

B Sc Physics – 12: 1

M Sc Physics – 4: 1

14. Number of academic support staff (technical) and administrative staff: sanctioned and filled

Support/Technical staff Sanctioned – 4, filled - 3

Administrative staff - Nil.

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG. as highest Degree

Qualification	No. of Faculty
P.G	4
M Phil	1
Ph D	3

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.
 - National 4
 - International Nil
 - Total Grants received **₹** 59,89,457/-

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Dr. D. Sajan	Design, Structural-Property Relations for the Nonlinear Optical Response, Growth and Vibrational Spectral Investigations of some Aniline Derivatives (2014-2017)	₹ 24,96,000/-	DST-Fast Track Young Scientist Project
Dr. D. Sajan	Screening, Selection, Growth and Vibrational Spectral Investigations of Non- Linear Optical materials (2013- 2016)	₹ 21,45,297/-	CSIR
Dr. D. Sajan	Growth, Optical studies and Vibrational Spectral Investigation of certain novel semi-organic NLO crystals for Laser applications(2015-2018)	₹ 13,48,160/-	KSCSTE



17. Departmental projects funded by UGC, DST-FIST, DBT, ICSSR etc.; and total grants received

■ Total Grants received – ₹ 4,00,000/-

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Chandy N. George	Development and Characterization of Nanocrystalline Barium Titanate (BaTiO ₃) Ceramic Reinforced Polymer Composite (2008- 2010)	₹ 50,000/-	UGC
George Mathew	Development of New Complex Perovskite Ceramic Oxides-Sr ₂ LnTiO ₆ (Ln-Lanthanide) through Solid-state and Nanoparticle route for Microwave Resonator Applications (2008- 2010)	₹ 50,000/-	UGC
Lynnette Joseph	Synthesis and Vibrational Spectroscopic investigations of Biologically Active molecules- Chalcone derivatives (2011-2013)	₹ 55,000/-	UGC
Jerin Susan John	Vibrational Spectroscopic Investigations And Third-Order Nonlinear Optical Studies of Certain Organic Molecules (2012-2014)	₹ 80,000/-	UGC
Merin George	Growth, Structural, Vibrational Spectral Studies on Aniline Derivatives for NLO Applications (2013-2015)	₹1,65,000/-	UGC

- **DST-FIST:** Sanctioned Rs 1,00,00,000/- in association with Department of Chemistry and received Rs 59,50,000/- as first installment.
- 18. Research Centre/facility recognized by the University

The Department of Physics is an approved research centre of University of Kerala 19. Publications:

Publications per faculty : 4.62

Number of papers published in peer reviewed journals (National/International) by faculty and students \qquad : Faculty – 37

Number listed in International database : 37
Citation Index- range / average : 40
Impact factor – range / average : 2.5
20. Areas of consultancy and income generated: Nil

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....

Dr. D. Sajan

- Editorial Board Member of Journal of Theoretical Chemistry from January 22, 2013 (Hindawi Publishing Corporation)
- Editorial Board Member of Advances in Chemistry from January 22, 2013 (Hindawi Publishing Corporation)
- 22. Student projects
- a) Percentage of students who have done in-house projects including inter Departmental/
 Programme
 - Final Year B Sc Physics students (100%)
 - Final Year M Sc Physics students (70%)

b)Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies

- Final Year M Sc Physics students (30%)
- 23. Awards/recognition received by faculty/Students
 - Department becomes **DST-FIST** sponsored in 2014
 - Dr D. Sajan, DST-SERB Young Scientist Project Award
 - Shaiju S., M.Sc. student, qualified UGC-JRF/NET in 2014
 - Neena Prasad and Praveena Prabhakaran, former students, qualified GATE –
 2014
 - Add-on course on Web Designing and Office Automation granted by UGC
 - Gayathri S. was the Youth Abassador to Russia in the Youth Exchange Programme of the Ministry of Defence via NCC
- 24. List of eminent academicians and scientists/visitors to the Department
 - Prof. Chandrabhas Narayana (JNCASR, Bangalore)
 - Dr. Mahesh Hariharan (IISER, Trivandrum)
 - Dr. Vinesh Vijayan (IISER, Trivandrum)
 - Dr. Yoosaf Karuvath (CSIR-NIIST, Trivandrum)
 - Dr. M. S. Bindu (Environment and Safeguard Specialist, Kerala Local Self Government)
 - Dr. P. T. Ajith Kumar (President and Leading Scientist, Light Logics Holography and Optics)

- Dr. P. J. Jojo (Fatima Matha National College, Kollam)
- Dr. A. Ajayaghosh (Deputy Director and Scientist, NIIST, Trivandrum)
- Dr. N. V. Unnikrishnan (Director, School of Applied Physics and Emeritus Professor, M.G. University, Kottayam)
- Dr. Madhu Thalakkulam (Scientist, IISER, Trivandrum)
- Dr. M. Lakshmanan (Bharathidasan University)
- Dr. S. Rajashekhar (Bharathidasan University)
- Dr. G. Ambika (IISER, Pune)
- Dr. Kiran K. P. (Scientist, ISRO)
- Dr. Ison V. Vanchipurackal (St. Thomas College, Pala)
- Prof. M. Lakshmanan (Bharathidasan University)
- Prof. G. Rajasekharan (Chennai Mathemetical Institute)
- Prof. H. S. Mani (Chennai Mathemetical Institute)
- Prof. Govind S. Krishnaswamy (Chennai Mathemetical Institute)
- Dr. Premlet B. (TKM College, Kollam)
- Dr. Gladston Raj S. (Govt. College, Nedumangad)
- Dr. K.S. Anilkumar (Sree Ayyappa College, Eramallikara)
- Dr. Jayamohan M. (IHRD, Adoor)
- Prof. James R. Durig (University of South Carolina, USA)
- Prof. Petra Hellwig (University of Strasbourg, France)
- Prof. Jun-ya-Kohno (Gakushuin University Japan)
- Prof. Chandrabhas Narayana (JNCASR, Bangalore)
- Dr. Sylvia Turrell (Duy Tan University, France)
- Dr. Hartwig Schulz (Julius Kühn-Institute, Germany)
- Dr. K. Jeganathan (Bharathidasan University)
- Dr. J. J. Kim (Professor Emiretus, Korean Advanced Institute of Science and Technology Korea)
- Dr. V. K. Rastogi (CCS University, Meerut)
- Dr. I. Hubert Joe (Mar Ivanios College, Trivandrum)
- Dr. Reji Philip (Raman Research Institute, Bangalore)
- Dr. Athira O. (Assistant Professor Amrita School of Biotechnology)
- Vineeth G. M. (Scientist B, VSSC Trivandrum)
- 25. Seminars/Conferences/Workshops organized and the source of funding (National/International)

Title of the Seminar/Conference/	Date	International	Sponsor
Workshop	24.0	/National /State	Бролог
National Conference on Experimental and Theoretical Approaches to Photonic Materials (ETAP-2016)	6-8 January 2016	National	KSHEC KSCSTE
Science Academies' Lecture Workshop on "Spectroscopic Techniques and Applications"	11-13 November 2015	State	INSA, IASc, NASI
Talk on "Importance of Protecting the Ozone Layer"	16 September 2015	State	KSCSTE
Seminar on "Sculpting Light – Holography and Applications"	3 September 2015	State	SPIE – CUSAT Student Chapter, APT
Talk on "Nuclear Energy"	19 August 2015	State	Department
National Conference on "Materials Science and Technology" (MSAT- 2015)	4-6 February 2015	National	DST-SERB, KSCSTE, BRNS, UGC
Science Academies' Lecture Workshop on "Non-linear Dynamics and Chaos"	21-22 January 2015	State	INSA, IASc, NASI
Talk on ''Rocket Launching Technology''	31 October 2014	State	Department
Talk on "Quantum Dot Sensitized Solar Cells"	11 August 2014	State	Department
Refresher Course on "Quantum Mechanics"	5 – 18 May 2014	National	INSA, IASc, NASI
"SCI- ROSTRUM" - National Science Day Celebrations	18 February 2014	State	KSCSTE
Rev. (Prof.) K. C. Mathew Endowment Lecture on "Artificial Intelligence"	10-11 January, 2014	State	Department
International Conference on Perspectives in Vibrational Spectroscopy (ICOPVS-2013),	6 – 9 August 2013	International	CSIR,BRNS, DST, KSCSTE, UGC, INSA
International Conference on Molecular Spectroscopy of Advanced Materials and Biomolecules (IMSAB 2012)	7 – 9 August 2012	International	CSIR,BRNS, DST, DRDO, KSCSTE,

			UGC
Rev. (Prof.) K. C. Mathew Endowment lecture on "Nanophotonics"	6 December 2012	State	Department
National Conference on "Recent Trends in Vibrational Spectroscopy" (RTVS-2011)	26 – 27 August 2011	National	BRNS DRDO KSCSTE, UGC
Rev. (Prof.) K. C. Mathew Endowment Lecture on "An Introduction to Photonics"	26 November 2010	State	Department

26. Students Profile programme/course wise

Name of the	Applications Received		Selected	Enro	lled	Pass
Course				M	F	Percenta ge
B Sc Physics (2012-13)		2321	32	12	20	69
B Sc Physics (2013-14)	CAP	2450	34	12	22	Ongoing
B Sc Physics (2014-15)		2400	32	14	18	Ongoing
M Sc Physics (2012-13)	CAP		11	1	10	72
M Sc Physics (2013-14)			11	4	7	81.81
M Sc Physics (2014-15)				7	6	Ongoing

*M = Male *F = Female

27. Diversity of students

B Sc Physics	% of students from the State	% of students from other state	% of students from other countries
2013	89	11	-
2014	86	14	-
2015	94	6	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

CSIR-UGC JRF : 1 GATE : 2 Defence Services : (Data not available)

29. Student progression:

Student progression	Against % enrolled
UG to PG	20-25
PG to M Phil	2-5
Ph D to Post-Doctoral	2-5
EmployedCampus selectionOther than campus recruitment	1-2 50
Entrepreneurship/Self Employment	0.07

- 30. Details of infrastructural facilities
 - a) Library : With 200 books
 - b) Internet Facility for staff and students:
 - UGC-COC and DST-FIST aided Computer and Networking Centre having 25 computers, available for the students.
 - Department Staff room having 2 computers with internet connectivity.
 - B Sc Physics Lab having three computers internet connectivity.
 - Research room having 2 workstations with internet connectivity.
 - c) Class Room with ICT facility : Two
 - d) Laboratories : Six (B Sc, M Sc, Computer Lab, 3

Research Labs)

- 31. Number of students of the Department getting financial assistance from College/University/Government/other agencies
 - College

Students Aid Fund - 3

Government

Higher Education Council Scholarship – 3

DST-INSPIRE - 3

SC/ST - 15

KPCR - 15

OBC Non-creamy layer – 8

OEC - 1

- 32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.
 - Science Academies' Lecture workshop on "Spectroscopic Techniques and Applications" was organized on 11-13 November 2015. The workshop sessions



- were led by Prof. Chandrabhas Narayana (JNCASR, Bangalore), Dr. Mahesh Hariharan, Dr. Vinesh Vijayan (IISER, Trivandrum), Dr. Yoosaf Karuvath (CSIR-NIIST, Trivandrum).
- A Talk on "Importance of Protecting the Ozone Layer" was led by Dr. M. S. Bindu (Environment and Safeguard Specialist, Kerala Local Self Government) on 16th September 2015, which included an awareness session on Ozone depletion and a quiz programme for the Physics students on the importance of the ozone layer. The Ozone day celebrations were funded by KSCSTE.
- A seminar on "Sculpting Light Holography and Applications" was organized on 3 September, 2015 as part of celebrating the International Year of Light, 2015. Dr. P.T. Ajith Kumar (President and leading Scientist, Light Logics Holography and Optics) dealt in detail with the procedure of recording holograms and reconstructing images along with a real time demonstration of producing a stable interference pattern to record holograms. The seminar was co-sponsored by SPIE (Society of Photo-Optical Instrumentation Engineers) CUSAT Student Chapter and the Academy of Physics Teachers (APT).
- Dr. P.J. Jojo (Associate Professor, Fatima Matha National College, Kollam) delivered a lecture on "Nuclear Energy – Green Energy" on 19 August 2015, as part of the inauguration of the Physics Association, RESONANCE-2015.
- Science Academies' Lecture workshop on "Nonlinear Dynamics and Chaos" was organized on 21-22 January 2015. The workshop sessions were led by Dr. M. Lakshmanan (Bharathidasan University), Dr. S. Rajashekhar (Bharathidasan University) and Dr. G. Ambika (IISER, Pune). All PG students of Physics also participated in the workshop.
- A talk on "Rocket Launching Technology" was delivered by Sri. Kiran K.P. (Scientist, ISRO) on 31 October, 2014.
- A lecture on "Quantum Dot Sensitized Solar Cells" was delivered by Dr. Ison V. Vanchipurackal (Assistant Professor, St. Thomas College, Pala) on 11 August 2014 as part of the inauguration of the Physics Association RESONANCE-2014.
- Dr. B. Premlet (TKM College of Engineering, Kollam) delivered a talk on "Green Energy and Lighting Systems" on 25 February 2014 as part of the National Science Day Celebrations funded by KSCSTE.
- Rev. (Prof.) K.C. Mathew Endowment Lecture on "Artificial Intelligence" was organized on 10-11 January 2014 for the benefit of M.Sc. students. Dr. Gladston Raj S. (Govt. College, Nedumangadu), Dr. K.S. Anilkumar (Sri Ayyappa College, Eramallikkara) and Dr. Jayamohan M. (IHRD College of Applied Science, Adoor) were the resource persons.
- Rev. (Prof.) K.C. Mathew Endowment lecture on "Nanophotonics" was organized on 6th December 2012 for the benefit of M.Sc. students. Dr. K. Jeganathan (Bharathidasan University) was the Resource person.

- The National Conference on "Recent Trends in Vibrational Spectroscopy" (August 26 27, 2011) was beneficial to the M.Sc. students to get in-depth knowledge about their papers especially Spectroscopy. Dr. Reji Philip, Raman Research Institute, Bangalore, was the key speaker. The Conference was funded by UGC, BRNS, DRDO and KSCSTE.
- Rev. (Prof.) K. C. Mathew Endowment Lecture on "An Introduction to Photonics" was organized on 26 November 2010, which covered a part of the M.Sc. syllabus. Dr. Reji Philip (Raman Research Institute, Bangalore) was the Resource person. The All India Radio recorded and broadcasted this lecture.

33. Teaching Methods adopted to improve student learning:

UG	PG
 Lecture Method Assignment and Seminar Group Discussion Power point presentation Project Work Problem Solving Presentation Practical sessions with demo Participation in Seminars e-learning Remedial classes for slow learners 	 Lecture Method Assignment and Seminar Group Discussion Brainstorming power point presentation Field Visit Project Work Problem Solving Presentation Practical sessions with demo Participation in Seminars, Conferences and Workshops e-learning Peer Learning

34. Participation in Institutional Social Responsibility (ISR) and extension activities

- Organization of International Conferences:
- Organization of National Conferences
- Hosting Refresher Courses and workshops
 - ✓ Science Academies' Lecture Workshop on "Spectroscopic Techniques and Applications" (11 13 November, 2015)
 - ✓ Science Academies' Refresher Course on Quantum Mechanics (5 18 May 2014)
 - ✓ Science Academies' Lecture Workshop on Basics of Nonlinear Dynamics (21 22 January 2015)
- Physics Exhibitions 2014 and 2015

- National Science Day Celebrations
 - ✓ Science Day Celebrations 2016 Inter-collegiate Power Point Presentation Competition, Essay competition, Science Lecture
 - ✓ SCI-ROSTRUM-2015 Inter-collegiate Power Point Presentation Competition, Inter-school Science Quiz competition, Inter-school Painting competition.
 - ✓ SCI-ROSTRUM-2014 Inter-collegiate Power Point Presentation Competition, Inter-school Elocution competition, Inter-school Essay Writing Competition.
- Ozone Day Celebrations 2015 Inter-collegiate Power Point Presentation Competition, Inter-Departmental Power Point Presentation Competition, Talk on "Importance of Protecting the Ozone Layer", Outreach programme in schools A Documentary on the importance of protecting the Ozone layer, directed by final year Degree students, as well as a skit on the protection of Ozone layer were shown in two schools.
- Lt. Dr. D. Sajan (Assistant Professor of Physics) is serving as the NCC Officer in charge of the Men's NCC Unit since 2014.
- Lynnette Joseph (Assistant Professor of Physics) has served as the NSS Programme Officer from 2009 to 2011.
- Jerin Susan John (Assistant Professor of Physics) has served as the Science Club Co-ordinator from 2012 to 2015.
- Dr. Arun Aravind (Assistant Professor of Physics) is serving as the Science Club Co-ordinator since July 2015.
- Merin George (Assistant Professor of Physics) has served as an Internal Mentor of the Walk With a Scholar Programme for the Academic year 2014-15 and is serving as the co-ordinator of the Walk With a Scholar Programme since September 2015.
- Study tours and field visits for UG and PG students every year
- Active participation in inter-collegiate science quiz competitions, inter-collegiate power point presentation competitions, inter-collegiate skit competition, intercollegiate elocution competition, inter-Department quiz competitions.
- Students of Physics were part of the College drama teams which won the first and second places respectively in 2014 and 2013 in the University of Kerala 'Naadakotsavam' (Drama Fest).
- Participation of students in University Youth Festival and sports. Abhiraj S. won the second place in mimicry in the University of Kerala Youth festivals in 2015 and 2014.
- Participation of students in NCC, NSS and other club activities. Gayathri S (S5 Physics) participated in the Youth Exchange Programme of the Ministry of Defence via NCC. She had been a Youth Ambassador to Russia under this programme.

35. SWOC analysis of the Department and future plans

Strengths

- ✓ Resourceful and dedicated faculty efficient in teaching learning processes, mentoring, research activities, career guidance, etc.
- ✓ Well equipped laboratories
- ✓ Two ICT enabled learning spaces
- ✓ Well equipped research laboratories and sophisticated instruments
- ✓ High demand ratio for Physics UG and PG courses
- ✓ Strong support from parents and alumni
- ✓ Strong mentor-mentee relationship ensured

Weaknesses

- ✓ Consultancy services yet to begin
- ✓ Only two research guides at present

Opportunities

- ✓ Career options more for physics students
- ✓ Conducive learning atmosphere
- ✓ Research centre is developing with the aid of DST-FIST sponsorship and major and minor projects of faculty members
- ✓ Increasing demand for Physics courses

Challenges

- ✓ Most of the students pursue B Ed after B Sc
- ✓ Semester duration is often too short to cover the syllabus
- ✓ The busy schedule of the semester system often prevents students from participating in extra-curricular and co-curricular activities
- ✓ The busy schedule of the semester system often restricts the active teacher participation in research



EVALUATIVE REPORT OF THE DEPARTMENT OF BOTANY AND BIOTECHNOLOGY

1. Name of the Department : Department of Botany and Biotechnolo	ogy
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- 2. Year of establishment : 1968
- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B Sc Botany
 - B Sc Botany and Biotechnology
 - M Sc Botany
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B Sc Botany and B Sc Botany and Biotechnology with
 - Chemistry and Zoology and Biochemistry as complementary courses respectively
 - English, Malayalam and Hindi as common language courses
 - Open courses conducted by all other Departments
- 5. Annual/semester/choice based credit system (programme wise):

Choice Based Credit and Semester System (CBCSS)

- B Sc Botany
- B Sc Botany and Biotechnology

Semester System

- M.Sc. Botany
- 6. Participation of the Department in the courses offered by other Departments:
 - Complementary Course in Botany offered to B Sc Zoology programme.
 - Open Courses (1. **Horticulture** 2. **Food and Dairy Technology**) for semester 5 students of other Departments.
- 7. Courses in collaboration with other Universities, industries, foreign institutions, etc.

Nil

- 8. Details of courses/programmes discontinued (if any) with reasons : Nil
- 9. Number of Teaching posts



Designation	Sanctioned	To be Sanctioned	Filled
Professor	-	-	-
Associate Professor	-	-	-
Assistant Professor	9	4	8

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ $PhD/M\ Phil\ etc.$)

Sl. No	Name of the Staff	Qualification	Designation	Specialization	Expe rienc e	No. of Ph D studen ts guided
1	Dr. Dinesh Raj R	M.Sc., Ph D Assistant Professor and HoD		Plant Molecular Biology	8	Nil
2	Dr. Asha Ramachandran	,		Ethnobotany and Phytochemistry	5	Nil
3	Dr. Sivaprasad A.	M Sc, Ph D	Assistant Professor	Environmental Physiology and Biochemistry	5	Nil
4	Dr. Brijithlal N. D.	M Sc, B Ed, M Phil, Ph D	Assistant Professor	Bryophyte Taxonomy	3	Nil
5	Robert Raju	M Sc	Assistant Professor	Biodiversity	2	Nil
6	Dr. Prakash G. Williams	M Sc, M Sc (CND), M Phil, Ph D	Assistant Professor	Microbial Biotechnology	5	Nil
7	Dr. Santhi W S	M.Sc., B Ed, Ph D	Assistant Professor	Cancer Biology	5	Nil
8	Dr. Jisha S.	M Sc, Ph D	Assistant Professor	Biochemistry	5	Nil
Tem	porary Faculty					

9	Jijo C. Varghese	M Sc	Guest faculty	Genetics	1	Nil
10	Anuja P R	M Sc, B Ed	Guest faculty	Pteridophyta	1	Nil
11	Bismi Sonia Nazer	M Sc, M Phil	Guest faculty	Angiosperm Taxonomy	1	Nil
12	Anitha Thampi	M Sc, M Phil	Guest faculty	Phytochemistry	1	Nil
13	Rajeshwari S.	M Sc, M Phil	Guest faculty	Plant Tissue culture	1	Nil

11. List of senior visiting faculty : Prof. Thomas Kurian

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

UG

BotanyBiotechnologyBiochemistry500

PG

■ Botany : 100

13. Student Teacher Ratio (Programme wise)

UG (Botany and Biotechnology) – 14:1

$$PG - 4: 1$$

14. Number of academic support staff (technical) and administrative staff: sanctioned and filled

Designation	Sanctioned	To be sanctioned	Filled
Lab Assistants	2	4	2
Herbarium Keeper	1	-	1

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG. as highest Degree

Qualification	No. of Faculty
PG	3
M Phil	3
Ph D	7

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.

 Nil
- 17. Departmental projects funded by UGC, DST-FIST, DBT, ICSSR etc.; and total grants received
 - Total Grants received ₹ 2,00,000/-

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Dr. Asha Ramachandran	Conservation strategies, Genotoxic studies and Phytochemical assay on <i>Trichopus</i> <i>zeylanicus</i> ssp. <i>travancoricus</i> Burkill ex Narayanan (2012-14)	₹ 2,00,000/-	UGC

- 18. Research Centre/facility recognized by the University : Nil
- 19. Publications:

Publications per faculty : 4

Number of papers published in peer reviewed journals (National/International) by faculty and students $\mathbf{:}$ Faculty -32

Books Edited : 1

Books with ISBN/ISSN numbers with details of publishers: 1

Rojimon P. T., Joby P., Sreekumar K. R., **Asha R.** and **Robert R.** (2014) Florill-Flora on the campus hill. Vidya Nikshepam, CMS College, Kottayam- 686 001. ISBN 978-81-925991-0-6

- 20. Areas of consultancy and income generated:
 - Antimicrobial activity of chemical substances (2015-16)- Rs. 2100/-
- 21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....

National committee:

 Dr. Dinesh Raj R. is a life member of Indian Association of Angiosperm Taxonomy (IAAT) since 2002

Academic council:

■ Dr. Santhi W. S. representing academic council, University of Kerala (Biotechnology)

22. Student projects

- a) Percentage of students who have done in-house projects including inter Departmental/Programme
 - : Final Year B Sc students (100%)
 - : Final Year M Sc students (100%)
- b) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies : Nil
- 23. Awards/recognition received at the National and International level by faculty/Students

 Doctoral Degree 3
- 24. List of eminent academicians and scientists/visitors to the Department

Name	Affiliation	Event	Year
Dr. Asha S. Nair	Dr. Asha S. Nair Scientist E II Rajiv Gandhi Centre for Biotechnology (RGCB) Thiruvananthapuram Assistant conservator of forest (Rtd) Govt. of Kerala		27 Oct. 2010
Simon Francis			10 Dec. 2010
B. Anandkuattan	Member district committee Kerala Shasthra Sahithya Parishad	Itty Achuthan commemorative lecture	10 Dec. 2010
Dr. Mathew Dan	Scientist, JNTBGRI Thiruvananthapuram	Association Inauguration, 2011	19 Dec. 2011
Dr. Suresh V.	Asst. Professor in Botany Govt. Victoria College, Palakkad	Association Inauguration, 2012	10 Nov. 2012
Dr. K. Madhavan Nampoothiri	Scientist EII Biotechnology Division NIIST, CSIR Thiruvananthapuram-695 019	National seminar	12-14 Dec. 2012



Dr. Srinivas G.	Scientists D Dept. of Biochemistry SCTIMST, Thiruvananthapuram	National seminar	12-14 Dec. 2012
Dr. Lakshmi S.	Asst. Professor Lab. of Molecular Medicine Regional Cancer Centre Thiruvananthapuram	National seminar	12-14 Dec. 2012
Dr. Priya Sreenivas			12-14 Dec. 2012
Dr. Krishnakumar B	Environmental Technology Division NIIST-CSIR Thiruvananthpuram-19	National seminar	12-14 Dec. 2012
Dr. Rajeev K. Sukumaran	Scientist, Centre for Biofuels, NIIST-CSIR, Thiruvananthpuram-19	National seminar	12-14 Dec. 2012
Dr. PG Latha	Director, JNTBGRI, Thiruvananthapuram	National seminar	12-14 Dec. 2012
Dr. Radhakrishnan E. K.	Asst. Professor in Microbiology School of Biosciences MG University	Association Inauguration, 2013	20 Feb. 2014
Dr. Jomy Augustine	Asso. Professor and Head Dept. of Botany St. Thomas College, Pala	Association Inauguration, 2014	18 Nov. 2014
Dr. Joby Paul	Asst. Professor in Botany St. Thomas College Thrissur	Association valedictory function, 2014	2 March 2014

25. Seminars/Conferences/Workshops organized and the source of funding (National/International)



Title of the Seminar	Source of funding
National conference on "Recent trends in Molecular Biology, RTMB-2012" (December 12-14, 2012)	KSCSTE, UGC

26. Students Profile programme/course wise

Name of the Course	Applic		Selected	Enr	olled	Pass
	Rece	ived		M	F	Percenta ge
B Sc Botany (2012-13)	CAP	1650	33	3	30	90
B Sc Botany (2013-14)		1537	29	0	29	Ongoing
B Sc Botany (2014-15)		1664	32	6	26	Ongoing
B Sc Botany and Biotechnology (2012-13)		560	20	4	16	89
B Sc Botany and Biotechnology (2013-14)		570	21	5	16	Ongoing
B Sc Botany and Biotechnology (2014-15)		805	23	2	21	Ongoing
M Sc Botany (2013-14)	CA	ΛP	12	1	11	83.4
M Sc Botany (2014-15)			12	0	12	Ongoing

^{*}M = Male *F = Female

27. Diversity of students

B. Sc	% of students from the State	% of students from other state	% of students from other countries
2013	85	15	-
2014	88	12	-
2015	90	10	-



28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

CSIR-JRF : 4

UGC-NET : 6

GATE : 2

29.Student progression:

Student progression	Against % enrolled
UG to PG	50-60
PG to M Phil	10-15
PG to Ph D	18-20
Ph D to Post-Doctoral	<1
Employed	90
 Campus selection 	1
 Other than campus recruitment 	49
Entrepreneurship/Self Employment	40

30. Details of infrastructural facilities

a) Department Library : With 350 Books

b) Internet Facility for staff and students : Computers with internet

connection (WiFi) facility

available

c) Class Room with ICT facility : One

d) Laboratories : Biotechnology laboratory-1

Tissue culture laboratory -1

Microbiology lab - 1 Botany Laboratory-4

31. Number of students of the Department getting financial assistance from College/University/Government/other agencies

College

Students Aid Fund - 3

Government

SC/ST - 24

KPCR - 21



OBC Non-creamy layer – 40 OEC- 10

32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.

2014-15

- "Conservation of Biodiversity with special reference to Western Ghats" delivered by Dr. Jomy Augustine, St. Thomas College ,Pala on 18.11.2014
- "Taxonomy: an unending synthesis" delivered by Dr. Joby Paul, St. Thomas college, Thrissur on 25.03.2015

2013-14

 "Biological significance and applications of plant associated microorganisms" delivered by Dr. Radhakrishnan E. K. on 20.02.2014

2011-12

• "Ethnobiology" delivered by Dr. Mathew Dan

2010-11

- "Recent advances in Cancer Research" delivered by Dr. Asha S Nair on 27.10.2010
- "Biodiversity conservation" delivered by Simon Francis on 10.12.2010.
- "Itty Achuthan commemorative lecture" delivered by B. Ananadakuttan on 10.12.2010.
- 33. Teaching Methods adopted to improve student learning:
 - ICT enabled classes
 Power point Presentations
 Student seminars
 Monthly assessment
 Field studies and study tour
 Group discussion
 Lab and research station visit
 Peer teaching
- 34. Participation in Institutional Social Responsibility (ISR) and extension activities
 - National Service Scheme (NSS)

Dr. Prakash G. Williams (2010-2013)

Dr. Brijithlal N. D. (2013-at present)

College Staff Council

Prof. Reena Koshy (2009-2015) as HOD

Dr. Dinesh Raj R. (2015- at present) as HOD

Dr. Sivaprasad A. (2013-14) as elected member

Dr. Santhi W. S. (2014-15) as elected member

College Level Monitoring Committee on CBCSS

Prof. Reena Koshy (2011-2015)

Dr. Dinesh Raj R. (2015- at present)

Dr. Dinesh Raj R. as co-convenor of CLMC (2014-15)

UGC Cell

Dr. Asha Ramachandran (2013- at present)

Student Aid Fund Committee (SAF)

Dr. Dinesh Raj R as Convenor (2014 onwards)

PTA Secretary

Dr. Dinesh Raj R. (2010-13)

General Coordinator of Extension activities

Dr. Prakash G. Williams (2015 onwards)

- 35. Besides the above mentioned responsibilities members are actively engaged in activities of various committees viz. IQAC, Eco club, Bhoomitra sena club and ENCON Club, Religious committee, library committee, Women empowerment and Sports hostel committee
- 36. SWOC analysis of the Department and future plans

Strengths

- ✓ A Multidisciplinary Department- offering core and/or complimentary courses in Botany, Biotechnology and Biochemistry.
- ✓ 90% of the faculty are PhD holders.
- ✓ Young faculty
- ✓ Two undergraduate courses offering core course in Botany and one PG programme in Botany.
- ✓ Career related course in Botany and Biotechnology
- ✓ A well maintained green house.
- ✓ Availability of sufficient lab space, instruments, herbarium, charts, models etc.
- ✓ Effective mentoring system and student centric activities

Weaknesses

- ✓ Teaching post for M.Sc. Botany is not sanctioned by the government and about 40% of the faculty are guests.
- ✓ Lack of major funding, research projects etc.

Opportunities

- ✓ Scope for external funding from UGC/DBT/DST etc.
- ✓ Potential to grow into a research Department.
- ✓ Collaborations with other research institutions.

- ✓ Close proximity to national (Central Plantation Crop Research Institute (CPCRI), Kayamkulam) and state (Rice Research Station, Kayamkulam) research institutes.
- ✓ Immense scope for extension activities.

Challenges

- ✓ Hectic schedule of university duties
- ✓ Constraints of semester system
- ✓ Frequent changes of evaluation pattern



EVALUATIVE REPORT OF THE DEPARTMENT OF ZOOLOGY

1. Name of the Department : **Department of Zoology**

2. Year of establishment : 1969

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B Sc Zoology
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B Sc Zoology with
 - Botany and Chemistry as complementary courses
 - English, Malayalam and Hindi as common language courses
 -) Open courses conducted by all other Departments
- 5. Annual/semester/choice based credit system (programme wise):

B Sc Zoology

- Semester with Choice-Based Credit and Semester System (CBCSS)
- 6. Participation of the Department in the courses offered by other Departments:
 - Complementary Course in Zoology offered to
 -) B Sc Botany programme
 - Open Course (Public Health and Hygiene) for semester 5 students of other Departments.
- 7. Courses in collaboration with other Universities, industries, foreign institutions, etc.

Nil

- 8. Details of courses/programmes discontinued (if any) with reasons : Nil
- 9. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	2	2
Assistant Professor	2	2



10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

Sl. No	Name of the Staff	Qualificatio n	Designati on	Specialization	Expe rienc e	No. of Ph D student s guided
1.	Dr. Laly Jacob	M Sc, M Phil, Ph D	Associate Professor and HoD	Eco-Physiology, Aquatic Biology and Fisheries	20	2
2.	Dr. Jacob Chandy	M Sc, M Phil, B Ed, Ph D	Associate Professor	Ecotoxicology	20	Nil
3.	Dr. Deepthi G. R.	M Sc, M Phil, B Ed, Ph D	Assistant Professor	Aquatic Biodiversity	6	Nil
4	Dr. Reeja Jose	M.Sc., M Phil, B Ed, Ph D	Assistant Professor	Freshwater Ecology	2	Nil

11. List of senior visiting faculty : Nil

- 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : Nil
- 13. Student Teacher Ratio (Programme wise)

14. Number of academic support staff (technical) and administrative staff: sanctioned and filled

Sanctioned
$$-2$$
 Filled -2

15. Qualifications of teaching faculty with DSc/D.Litt/Ph D/MPhil/PG as highest Degree

Qualification	No. of Faculty
PG	-
M Phil	-
Ph D	4

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.
 - National -2
 - International Nil
 - Total Grants received ₹ 5.80 lakhs

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Dr. Deepthi G.R.	Biodiversity, Ecology and Conservation of Mangrove Ecosystem in Ayiramthengu Area, Kollam District, Kerala (2015-2017)	₹2,90,000/-	UGC
Dr. Reeja Jose	A Comparative Assessment on the quality of Well and Pond Water in Mavelikara Taluk, Alappuzha District, Kerala (2015-2017)	₹2,90,000/-	UGC

- 17. Departmental projects funded by UGC, DST-FIST, DBT, ICSSR etc.; and total grants received : Nil
- 18. Research Centre/facility recognized by the University : Nil
- 19. Publications:

Publications per faculty : 3.25

Number of papers published in peer reviewed journals (National/International) by faculty and students \qquad : Faculty -13

- 20. Areas of consultancy and income generated: : Nil
- 21. Faculty as members in a) National committees b) International Committees c) Editorial Board.
- 22. Student projects
 - c) Percentage of students who have done in-house projects including inter Departmental/Programme : Final Year B. Sc students (100%)



- d) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies : Nil
- 23. Awards/recognition received at the National and International level by faculty/Students

 Doctoral Degree 1
- 24. List of eminent academicians and scientists/visitors to the Department
 - Dr. A.V. George, Vice Chancellor, M.G. University, Kottayam
 - Dr. Oommen V. Oommen, Director Biodiversity Board, Govt. of Kerala
 - Dr. Arunachalam, Dean, Faculty of Science, M. S. University
 - Dr. K. V. Jayachandran, Dean in Fishery science, KUFOS
 - Dr. Bijoy Nandan, Associate Professor in Fishery science, KUFOS
 - Dr. Susan J. Panicker, Professor and HoD T.K.M. College of Engineering
 - Dr. Nandakumar, Director, CESS, Trivandrum
- 25. Seminars/Conferences/Workshops organized and the source of funding (National/International)

Title of the Seminar/Conference/ Workshop	International /National /State	Sponsor
"Water Resource Management: Present uses, Status, Conservation and Co operation" -20 th to 22 nd March 2013	National	UGC, DST and KSCSTE

26. Students Profile programme/course wise

Name of the Course	Applications Received		Selected	Enrolled		Pass Percentage
				M	F	
B Sc. (2012-13)	CAP	1394	34	6	28	92
B Sc (2013-14)		1400	28	8	20	Ongoing
B Sc (2014-15)		1734	34	3	31	Ongoing

^{*}M = Male *F = Female

27. Diversity of students

B Sc	% of students from the State	% of students from other state	% of students from other countries
2013	85	15	-
2014	86	14	-
2015	89	11	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

29. Student progression:

Student progression	Against % enrolled
UG to PG	25-30
PG to M Phil	-
Ph D to Post-Doctoral	-
EmployedCampus selectionOther than campus recruitment	2-5 25-30
Entrepreneurship/Self Employment	10-15

30. Details of infrastructural facilities

a) Library : With 152 Books

b) Internet Facility for staff and students : Yes

c) Class Room with ICT facility : One

d) Laboratories (**Computer Lab**) : Three

31. Number of students of the Department getting financial assistance from College/University/Government/other agencies

College

Students Aid Fund - 1

Government

SC/ST - 18

KPCR - 5

OBC Non-creamy layer – 15

OEC -18

32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts. One day Seminar on Biodiversity and conservation- Dr. A. Bijukumar, Dept of Aquatic Biology, Kariavattom - 23 July 2010 Workshop on Diversity of Dragon flies- Dr. Abraham Samuel A. Reader, CMS College, Kottayam-13 October 2010 Workshop on Apiculture- . B. Sunil, Regional Manager, Horticorp, Kochalummood- 30 October 2011 One day Seminar on Birds associated with paddy fields- Dr. Mary Chandy, Associate Professor, CMS College, Kottayam - 14 July 2012 Training programme on Vembenad Bird Count -. Harikumar, Kottayam Nature Society – 2012 Counselling programme – Tessy Grace Mathew, Clinal Psychologist, Pushpagiri Hospital- 6 December 2012 National seminar sponsored by UGC, DST and KSCSTE on "Water Resource" Management: Present uses, Status, Conservation and Co operation" -20 to 22 March 2013 Training programme on "In situ cultivation of Butterflies through the construction of butterfly garden" Dr. A. Bijukumar, March 2014 One day Seminar on Conservation of Mangrove Ecosystem - . Harikumar, Kottayam Nature Society -23 July 2014 Workshop on Common Bird Monitoring Programme - . Harikumar, WWF, India, Kerala,1 September 2014 Training Workshop on Onam bird count - Harikumar, Kottayam Nature Society -12 August 2015 Training workshop on Apiculture - B. Sunil, Assistant Engineer, Agro industries, Kotarakkara - 9 October 2015 33. Teaching Methods adopted to improve student learning: ICT enabled classes **Power point Presentations** Student seminars Monthly assessment Peer teaching by students 34. Participation in Institutional Social Responsibility (ISR) and extension activities Apiculture

Dr. Jacob Chandy is serving as the Vice Principal

Aqua Culture

J	Dr. Reeja Jose is currently serving as the co-ordinator of the Nature
Club	
J	Dr. Laly Jacob is the present convenor of Interdisciplinary Research
	Committee
35. SWOC analys	sis of the Department and future plans
•	Strengths
	All the faculty members are Ph D holders
	One faculty is Research Guide
	Museum with more than 10, 000 specimens
	Library with more than 150 books in Zoology
) Aquaculture facilities
•	Weaknesses
	No PG course
) Inadequate lab facilities
•	Future plans
	M.Sc. Zoology with specialization in Aquaculture and Fishery Science

EVALUATIVE REPORT OF THE DEPARTMENT OF MATHEMATICS

1. Name of the Department : **Department of Mathematics**

2. Year of establishment : 1968

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B Sc Mathematics
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B Sc Mathematics with
 - Physics and Statistics as complementary courses
 - English, Malayalam and Hindi as common language courses
 -) Open courses conducted by all other Departments
 - Attend add on courses offered by other Departments Diploma in Computer application offered by Department of Physics.
- 5. Annual/semester/choice based credit system (programme wise):
 - Semester with Choice-Based Credit and Semester System (CBCSS)
- 6. Participation of the Department in the courses offered by other Departments:
 - Complementary Course in Chemistry offered to
 - B Sc Physics, and B Sc Chemistry programmes.
 - Open Course (Business Mathematics) for semester 5 students of other Departments.
- 7. Courses in collaboration with other Universities/industries/foreign institutions etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons : Nil
- 9. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	1	1
Assistant Professor	3	1

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

SI . N o.	Name of the Staff	Qualification	Designation	Specialization	Exp erie nce	No. of Ph D stude nts guide d
1.	Dr. Sabu George	M.Sc., Ph D	Associate Professor and Principal	Distribution Theory	28	Nil
2.	Simili Abraham	M.Sc. B Ed	Assistant Professor and HoD	Graph Theory	8	Nil
	Temporary Faculty					
3.	Sonu Soman	M.Sc., B Ed	Guest Faculty	Functional Analysis	2	Nil
4.	Tinku Mathew Abraham	M.Sc.	Guest Faculty	Matroids	1	Nil
5.	Sruthy Sreekumar	M.Sc.	Guest Faculty	Random Matrix Theory	1	Nil

11. List of senior visiting faculty : Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

: B Sc Mathematics - 75 %

13. Student Teacher Ratio (Programme wise)

: B Sc Mathematics - 50 : 1

14. Number of academic support staff (technical) and administrative staff: sanctioned and filled : Nil

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG. as highest Degree

Ph D	1
PG	4

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.
 - National
 - International Nil
 - Total Grants received Nil
- 17. Departmental projects funded by DST-FIST, DBT, ICSSR etc.; and total grants received : Nil
- 18. Research Centre/facility recognized by the University : Nil
- 19. Publications:

Number of papers published in peer reviewed journals (National/International) by faculty and students \qquad : Faculty -1

- 20. Areas of consultancy and income generated: Nil
- 21. Faculty as members in a) National committees b) International Committees c) Editorial Boards : Nil
- 22. Student projects
 - e) Percentage of students who have done in-house projects including inter Departmental/Programme : Final Year B Sc students (100%)
 - f) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies : Nil
- 23. Awards/recognition received at the National and International level by faculty/Students : Nil
- 24. List of eminent academicians and scientists/visitors to the Department
- 25. Seminars/Conferences/Workshops organized and the source of funding (National/International) : Nil
- 26. Students Profile programme/course wise

Name of the	Applications Received		Selected	Enrolled		Pass
Course		erveu		M	F	Percentage
B Sc (2012-13)	CAP	1517	41	10	31	92
B Sc (2013-14)		1521	39	11	28	Ongoing
B Sc (2014-15)		1440	36	7	29	Ongoing

*M = Male *F = Female

27. Diversity of students

B Sc	% of students from the State	% of students from other state	% of students from other countries
2013	96	4	-
2014	94	6	-
2015	97	3	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

NET : 1 GATE : 1

29. Student progression:

Student progression	Against % enrolled
UG to PG	20-25
UG to CA, ICWAI, CMA, ACCP etc	5-10
PG to M Phil	N A



Ph D to Post-Doctoral	N A
Employed	
 Campus selection 	3
 Other than campus recruitment 	10-15
Entrepreneurship/Self Employment	3-5

30. Details of infrastructural facilities

a) Department Library : Yes (100 Books and 2 Journals)

b) Internet Facility for staff and students : Yes c) Class Room with ICT facility : One d) Laboratories : Nil

31. Number of students of the Department getting financial assistance from College/University/Government/other agencies

College

Students Aid Fund - 1

Government

Higher Education Council Scholarship - 1

Central Sector Scholarship – 1

State Merit Scholarship – 1

Prathibha Scholarship - 1

SC/ST - 18

KPCR - 18

OBC Non-creamy layer - 33

OEC - 3

- 32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.
 - One day workshop on "LaTeX PROGRAMMING" on 27 August 2014.
 - One day workshop on "PYTHON PROGRAMMING" on 18 February 2015.
 - Participated in Mathematics Exhibitions 2014 and 2015
 - One day workshop on "PYTHON PROGRAMMING" on 23 January 2014.
 - Three day Workshop on LINUX and LaTeX Programming on 19-21 July 2012
- 33. Teaching Methods adopted to improve student learning:

)) ,	ICT enabled classes Power point Presentations Student seminars and Assignments Monthly assessment			
<i>)</i>	Project Work			
J	Group Discussion			
J	Remedial classes for slow learners			
34. Participation i	n Institutional Social Responsibility (ISR) and extension activities			
•	Conducting Prof. K. J. Johnson Memorial all Kerala Inter Collegiate Quiz Competition every year.			
•	Participation of students in NCC, NSS and other club activities.			
35. SWOC analys	is of the Department and future plans Strengths			
) Qualified faculty			
	J ICT enabled teaching			
) Meritorious Students			
•	Weaknesses			
) Shortage of permanent faculty			
) lack of research and extension activities			
•	Opportunities			
) Career opportunities			
) Conducive learning atmosphere			
	J Increasing demand for Mathematics courses.			
•	Challenges			
) Shortage of permanent teachers			

Lack of modern class rooms



EVALUATIVE REPORT OF THE DEPARTMENT OF ENGLISH

1. Name of the Department : **Department of English**

2. Year of establishment : 1968

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B A English
 - M A English
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B A English with
 - Political Science as complementary course
 - English, Malayalam and Hindi as common language courses
 - Open courses conducted by all other Departments
- 5. Annual/semester/choice based credit system (programme wise):
 - Semester with Choice-Based Credit and Semester System (CBCSS) for UG (2011 - 12 onwards)
 - Semester system for PG
- 6. Participation of the Department in the courses offered by other Departments:
 - General English offered to
 - All B Sc, B A and B Com programmes.
 - Open Course (English for Communication) for semester 5 students of other Departments.
 - Add-On Course on Journalism and Mass Communication (2010-2013).

Courses in collaboration with other Universities/industries/foreign institutions etc.: Nil

7. Details of courses/programmes discontinued (if any) with reasons

Nil

8. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	2	2
Assistant Professor	10	10



9. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

Sl. No	Name of the Staff	Qualification	Designati on	Specialization	Experien ce	No. of Ph D students guided
1.	Giggy P. Koshy	M A, M Phil	Associate Professor and HoD	Feminism and Latin American Literature	28	Nil
2.	Dr. Anne Angeline Abraham	M A, Ph D	Associate Professor	American Literature and Women's Writing	19	Nil
3.	Suma Alexander	M A, B Ed	Assistant Professor	Travel Literature	8	Nil
4.	Amith David	M A, B Ed	Assistant Professor	Literary Theory	8	Nil
5.	Dr. Nair Anup Chandrasekharan	M A, M Phil, Ph D	Assistant Professor	Renaissance in Indian Literature	5	Nil
6.	Vidu Vijayan	МА	Assistant Professor	Cultural Studies	5	Nil
7.	Dr. Divya S.	M A, Ph D	Assistant Professor	Comparative Epistemology	5	Nil
8.	Julie Thomas	M A, M Phil	Assistant Professor	Children's Literature	5	Nil
9.	Premjith M. R.	МА	Assistant Professor	Literary Theory	5	Nil
10.	Anusha Das	M A, M. Ed.	Assistant Professor	ELT	4	Nil
11.	Bhagyalakshmi Mohan	M A, M Phil	Assistant professor	Women Studies	4	Nil

12.	Neethu Mary Philip	МА	Assistant Professor	Neo- Victorianism	1	Nil	
	Temporary Faculty						
13.	Sumam Mary Mani	МА	Guest Faculty	American Literature	1	Nil	

10. List of senior visiting faculty : Nil

11. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

B A English - 9 %

M A English - Nil

12. Student Teacher Ratio (Programme wise)

B A English

15:1

M A English 3: 1

- 14. Number of academic support staff (technical) and administrative staff: sanctioned and filled : Nil
- 13. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG as highest Degree

Qualification	No. of Faculty
P G	6
M Phil	4
Ph D	3

- 14. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.
 - National 4
 - International Nil
 - Total Grants received ₹5,87,000 /-

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Julie Thomas	Once Upon A Time: The Influence of Fairy Tales on Budding Writers	₹1,35,000/-	UGC
Premjith M. R.	The Metaphor of Subversion in the Writings of People's Movements in Niyamgiri and Kudumkulam with special importance on Blogs	₹ 1,22,000/-	UGC
Dr. Divya S.	Aporias of Memory: Narrative Reconstruction of Past in W. G. Sebald's Fictional World	₹ 2,00,000/-	UGC
Bhagyalekshmi Mohan	Women in M. T. Vasudevan Nair's Screenplays – A Historical Study	₹1,30,000/-	UGC

- 15. Departmental projects funded by UGC, DST-FIST, DBT, ICSSR etc.; and total grants received
 - i. Total Grants received ₹6,42,000 /-

Name of the Investigator	Title of the project and duration	Amount sanctioned	Funding Agency
Giggy P Koshy	Giggy P Koshy Mapping the Personal and the Political in Isabel Allende's Spanish Conquestcoras (2011-13) 18 months		UGC
Dr. Anne Angeline Abraham	Trajectories of the American and Indian Scenario: Culture in Nikki Giovanni and Chetan Bhagat (2012-14) 18 months	₹1,30,000/-	UGC
Dr. Nair Anup Chandrashekharan	Exploring the 'mindscape' of Indian Renaissance poets in the Context of the Colonial Encounter (2011-13) 18 months	₹1,30,000/-	UGC
Vidu Vijayan	Street Strikes Ahead: Street as an Axis of Power in Aravind Adiga's <i>The White Tiger</i> (2012-14) 18 months	₹90,000/-	UGC
Anusha Das	Know the Child, Know the Book –A Developmental Approach to Children's Literature	₹1,55,000/-	UGC

- 16. Research Centre/facility recognized by the University :
- 17. Publications:

Nil

	and students : 8
	No. listed in International Database : 8
	Books with ISBN/ISSN numbers with details of publishers: 3
18.	. Areas of consultancy and income generated : Nil
	. Faculty as members in a) National committees b) International Committees c) Editorial Boards : Nil
20.	. Student projects
	g) Percentage of students who have done in-house projects including inter Departmental/ Programme : Final Year B A Students (100%)
	: Final Year M A students (100%)
	h) Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies : Nil
21.	. Awards/recognition received at the National and International level by faculty/Students : Nil
22.	. List of eminent academicians and scientists/visitors to the Department
	 Dr. P. Radhika, HoD, FMN College, Kollam (ICWT International Translation Award (University of California, USA) Winner. Venkitesh Ramakrishnan, Senior Associate Editor, The Hindu Frontline, New Delhi. Mohan Ramamoorthy, Faculty, Asian School of Journalism, Chennai. Rajesh Mohan, Overseas Academy, Ernakulam. Sri. John Paul, Film Script Writer and Critic Nooranadu Suku, Theatre Artist and Play writer Prof. Khyrunnisa A., Rtd. Professor, All Saints College, Thiruvananthapuram Benyamin, Eminent Malayalam writer. Prof. Jacob Eapen Kunnath, CMS College, Kottayam Drew Hayden Taylor, Humourist, Canada Prof. P. P. Raveendran, Dean, School of Letters, M. G. University, Kottayam Dr. Chitra Panicker, Professor, Bangalore University Dr. Manu Ramakant, Associate Professor, SN College, Thiruvananthapuram Kalpetta Narayanan, Poet and Academician
	Sunil P Ilayidam, Associate Professor, Sree Sankaracharya University, Kaladi

- Dr. Aju K. Narayanan, Assistant Professor, U C College, Aluva
- Cherry Jacob, Assistant Professor, U C College, Aluva
- J. Devika, Associate Professor, Centre for Development Studies, Thiruvanathapuram
- Preethi Joseph, Assistant Professor, Raja Ravi Varma College of Fine Arts, Mavelikara
- Prof. C. C. Thomas, Rtd. Professor, SB College, Changanacherry
- Prof V. C. John, Rtd Professor and Head, Bishop Moore College, Mavelikara
- 23. Seminars/Conferences/Workshops organized and the source of funding (National/International)

Title of the Seminar/Conference/ Workshop	Date	Internation al /National /State	Spons or
Evolving Media in Post- Liberalisation India	28-29 December, 2015	National	UGC
Workshop on 'Literary Theory'	January 10 -11, 2015	State	Nil
Theatre Workshop	18th August, 2015	State	Nil
National Seminar on '21st Century English Classroom: Perspectives and Challenges'	23-24 October 2014.	National	UGC
Seminar on 'Reading Literature in the Contemporary Critical Paradigm'	August 13-14, 2013	National	UGC

24. Students Profile programme/course wise

Name of		cations	Selected	Enrolled		Pass
the Course	Rec	eived		M	F	Percentage
B A	CAP	1720	43	7	36	77
(2012-13)						
ВА		2256	48	12	36	Ongoing
(2013-14)						

B A (2014-15)		2173	41	7	34	Ongoing
(2014-15) M A	C	'AP	12	2	10	100
(2012-13)						
M A (2013-14)			16	1	15	75
M A (2014-15)			15	5	10	Ongoing

M = Male F = Female

26. Diversity of students

ВА	% of students from the State	% of students from other state	% of students from other countries
2013	87	13	-
2014	92	8	-
2015	93	7	-

27. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

NET : 11

28. Student progression:

Student progression	Against % enrolled
UG to PG	50 - 60
M A to Ph D	5 - 7
Employed	
Campus selection	2 - 5
 Other than campus recruitment 	30 - 40
Entrepreneurship/Self Employment	2 - 5

29. Details of infrastructural facilities

a) Department Library : With 600 books



b) Internet Facility for staff and students : Yes

c) Class Room with ICT facility : Two

d) Laboratories : Media Room

30. Number of students of the Department getting financial assistance from College/University/Government/other agencies

Government

SC/ST - 21

KPCR - 18

OBC Non-creamy layer – 24

OEC-12

31. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts

Programme	Resource persons
Prof. P U Jacob Endowment lecture on 'Translation', September 30, 2015	Dr. P. Radhika, HoD, FMN College, Kollam
Talk on 'How to Make English Learning Easy', 11 th November, 2015	Rajesh Mohan, Overseas Academy, Ernakulam.
Invited talk on 'World Cinema' September 18, 2015	Sri. John Paul (Script Writer)
Prof. P. U. Jacob Endowment Lecture on 'The Magic of Words the Allure of Literature',23 rd September, 2014	Prof. Khyrunnisa A., Trivandrum
Invited Talk on 'Modern Literature and Life',	Benyamin (Eminent Malayalam writer)
Invited Lecture, March 4, 2014	Dr. P. K. Rajasekharan, Writer and Critic
Theatre Workshop, February 2, 2014	Nooranadu Suku, Theatre Artiste
Talk on 'Essential Qualities for Public Speaking ', February 26, 2014.	Prof. Jacob Eapen Kunnath (CMS College, Kottayam)
Interface with Author	Drew Hayden Taylor (Canada)



Prof. P. U. Jacob Endowment lecture on 'How to Read a Movie' September 5, 2013.	Dr. Manu Ramakant S N College, Kollam
Talk on Poetry - March 4, 2013	Kalpetta Narayanan, Poet
Talk on Modernism - March 5, 2013	Sunil P Ilayidam, Sree Sankaracharya University, Kalady
Talk on 'Theory of Resistance' - March11, 2013	Dr. J. Devika, CDS, Tvm
Talk on 'Films'	Aju K. Narayanan, Cherry Jacob, UC College, Aluva
Prof. P. U. Jacob Endowment lecture on 'I'm Sad that I'm not Mad - A Survey on Modern Art' December 20, 2012	Prof. Preethi Joseph, Raja Ravi Varma Fine Arts College, Mavelikara
Prof. P. U. Jacob Endowment lecture on Shakespeare 2011	Prof. C. C. Thomas, SB College, Changanacherry
Invited talk 'On Literature' July 1, 2011	Prof V. C. John, Bishop Moore College, Mavelikara
Prof. P. U. Jacob Endowment lecture on Evolution of Media and the significance of Media November 11, 2011	Sri. John Paul (Script Writer)

32. Teaching Methods adopted to improve student learning:

- J ICT enabled classes
- Lecture Method
- Assignments and Seminars
- Group Discussion
- Power point Presentation
- Participation in seminars
- Feedback from students
- Project work
- 33. Remedial Classes Participation in Institutional Social Responsibility (ISR) and extension activities
 - Organization of National Conferences
 - Conducting workshops

- Extension activity of conducting workshop for high school teachers
- ASAP
- Literary exhibitions conducted by students
- Faculty as resource persons for various colleges
- Faculty served as coordinators for programs like NSS and Women's Study
- Faculty has led the Kerala Lakshadweep contingent for the two day
 Pre RD camp at Bangalore in 2012
- 34. SWOC analysis of the Department and future plans

Strengths | Recognised ASAP Institute | Young faculty | Diversity in the areas of specialisation | Initiatives taken in collaborating with other institutions in conducting workshops | Lecture Series | Prof. P U Jacob Endowment lectures | Department Library

Weaknesses

Meritorious Alumni

- Shortage of time due to heavy work schedule of the Semester ProgrammeOnly three Ph D holders
- Opportunities
 - High demand for English courses
 - Exposure and training given for competitive tests (like NET, Ph D entrances) spurs career options
 - Minor research projects and research studies by the Faculty are conducive factors in making the Department a Research Centre.

Challenges

- Difficulties faced in learning a foreign language
- Shortage of time in teaching the syllabus with frequent University exams and valuation camps



EVALUATIVE REPORT OF THE DEPARTMENT OF MALAYALAM

1. Name of the Department : **Department of Malayalam**

2. Year of establishment : 1964

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B A Malayalam
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B A Malayalam with
 - Sanskrit as complementary course
 - English, Malayalam and Hindi as common language courses
 - Open courses conducted by all other Departments
- 5. Annual/semester/choice based credit system (Programme wise):
 - Semester with Choice-Based Credit and Semester System (CBCSS) for UG
- 6. Participation of the Department in the courses offered by other Departments:
 - Malayalam (language course) offered to
 - All B Sc, B A and B Com programmes.
 - Open Course (Keraleeya Kalakal') for Semester 5 students of other Departments.
- 7. Courses in collaboration with other Universities/industries/foreign institutions etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons : Nil
- 9. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	4	4
Assistant Professor	2	1



10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

Sl. No	Name of the Staff	Qualification	Designati on	Specialization	Experi ence	No. of Ph D student s guided
1	V. I. Johnson	M A , M Phil	Associate Professor	Film Studies	31	Nil
2	Dr. Harichandran Achari	M A , M Phil, Ph D	Associate Professor	Kathakali Vrutham	29	Nil
3	Johnson Chemmanam	M A , M Phil	Associate Professor	Linguistics	26	Nil
4	Sajini Deena Mathew	M A, M Phil, M. Ed.	Assistant Professor	Gadya Sahityam	4	Nil
5	Dr. Dinesh V	M A, M Phil, Ph D	Associate Professor	Sahitya	19	Nil
	Temporary Faculty					
6.	Jijin B. Krishna	M A, M Phil	Guest Faculty		1	Nil

11. List of senior visiting faculty : Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : B A - 20 %

13. Student Teacher Ratio (Programme wise) : B A - 20 : 1

14. Number of academic support staff (technical) and administrative staff: sanctioned and filled : Nil

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG. as highest Degree

Qualification	No. of Faculty
M Phil	4
Ph D	2

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.

 Nil
- 17. Departmental projects funded by DST-FIST, DBT, ICSSR etc.; and total grants received : Nil
- 18. Research Centre/facility recognized by the University : Nil
- 19. Publications:

Number of papers published in peer reviewed journals (National/International) by faculty and students : 4

- 20. Areas of consultancy and income generated: Nil
- 21. Faculty as members in a) National committees b) International Committees c) Editorial Boards
 - V. I. Johnson and Johnson Chemmanam Members of Editorial Board of Malayalam Research Journal, Kottayam.
- 22. Student projects

Percentage of students who have done in-house projects including inter Departmental/Programme : Final Year B A students (100%)

Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies : Nil

- 23. Awards/recognition received by faculty/Students : Nil
- 24. List of eminent academicians and scientists/visitors to the Department
 - Dr. S Rajashekharan
 - Prof. V Madhusudannan Nair (Malayalam poet)
 - Rev. Dr. K M George
 - Dr. K. S Ravikumar, Professor, Sreesankara University of Sanskrit, Kalady.
 - M G Radhakrishnan Journalist
 - Dr. R S Rajeev HOD, DB College, Sasthankotta
 - Dr. N Sam Former Professor University of Kerala
 - Dr. P Padma Kumar HOD, MSM College Kayamkulam
 - Dr. N Rajendran Former Professor MSM College Kayamkulam
 - Dr. Jubin Mattapallil St. Gregorios College Kottarakara

- Prof Bidhu C Sree Neelakanda Gov Sanskrit College Pattambi
- Dr. A N Krishnan Emeritus Prof., Kerala Kalamandalam
- Prof. Vineeth V. S.– University College, Thiruvanathapuram
- Dr. Deepa Mary Joseph Asst. Prof. St. Johns College Anchal
- Prof. Dhanya S Panicker Kunjikkuttan Thapuran Govt. College, Kodungallur
- Dr. T A Sudhakara Kurup Former Principal N S S College Rajakumari
- Dr. S Naushad HOD, University College, Thiruvanthapuram
- Dr.Selin S N Asst Prof. Govt. College, Kottayam
- Dr. Sreenarayan Evoor HOD, Alvas College, Mangalapuram
- Kumar J Asst. Prof. Govt. College, Kattappana

25. Seminars/Conferences/Workshops organized and the source of funding (National/International)

Name of the Convenor		Title of the Conference and duration	Amount sanctioned	Funding Agency
Sajini Mathew	Deena	Malayala Vyakarana Padanam: Vythastha Sameepanangal.	₹ 50,000/-	UGC

26. Students Profile programme/course wise

Name of the Course		ications ceived	Selected	Enrolled		Pass Percentage
Course	Ke	cerveu		M	F	Tercentage
B. A Malayalam (2012-13)	CAP	805	35	8	27	66.67
B. A Malayalam (2013-14)		1323	49	12	37	Ongoing
B. A Malayalam (2014-15)		1026	39	9	30	Ongoing

^{*}M = Male *F = Female

27. Diversity of students

B A Malayalam	% of students from the State	% of students from other state	% of students from other countries
2013	92	8	-
2014	93	7	-
2015	96	4	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

Nil

29. Student progression:

Student progression	Against % enrolled
UG to PG	30-35
PG to M Phil	-
PG to Ph D	-
Employed	
 Campus selection 	10-15
 Other than campus recruitment 	20-25
Entrepreneurship/Self Employment	30-35

30. Details of infrastructural facilities

a) Department Library : 2340 books

b) Internet Facility for staff and students : Yesc) Class Room with ICT facility : Oned) Laboratories : Nil

31. Number of students of the Department getting financial assistance from College/University/Government/other agencies

Government

SC/ST – 30 OBC Non-creamy layer – 36 OEC- 12

- 32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.
 - Rev. George Mathen Memorial lecture series on contemporary issues organized every year
 -) Organised two days exhibition in association with the College Golden Jubilee Celebration.
- 33. Teaching Methods adopted to improve student learning:

J ICT enabled classes
 J Student seminars
 J Monthly assessment
 J Visit to Historical Places

- J Power point Presentations
- 34. Participation in Institutional Social Responsibility (ISR) and extension activities: Nil 35. SWOC analysis of the Department and future plans
 - Strengths

Experienced facultyICT enabled teachingPeer teachingRemedial Teaching facility

- Weaknesses
 - Poor English language competency of students
- Opportunities
 - Potential to upgrade as PG and Research Department.
- Challenges
 - Difficulties in improving English communication skills



EVALUATIVE REPORT OF THE DEPARTMENT OF ECONOMICS

1. Name of the Department	:	Department of Economics
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2. Year of establishment : 1967

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B A Economics
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B A Economics with
 - Political Science and Indian History as complementary courses
 English, Malayalam and Hindi as common language courses
 Open courses conducted by all other Departments
 - Attend add on courses offered by Department of Commerce on Tally, Web designing, Web animation.
 - Selected students participated in the short term Add on course on "Computerized Accounting" offered by the Department of Commerce in December 2015
- 5. Annual/semester/choice based credit system (programme wise):

B A Economics

- Semester with Choice-Based Credit and Semester System (CBCSS)
- 6. Participation of the Department in the courses offered by other Departments:
 - Complementary Course in Political Science offered to
 - B A English programme.
 - Open Course (Human Resource Management) for Semester 5 students of other Departments.
- 7. Courses in collaboration with other Universities/industries/foreign institutions etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons : Nil
- 9. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	3	3
Assistant Professor	1	1

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

Sl. No	Name of the Staff	Qualification	Designat ion	Specialization	Expe rienc e	No. of Ph D studen ts guided
1.	Dr. P. K. Varghese	M Phil, Ph D	Associate Professor	Agriculture Economics	22	3
2.	Dr. Ranjith Mathew Abraham	M Phil, Ph D	Associate Professor	Agriculture Economics	19	Nil
3.	Anu Mathews	M A, M Phil	Associate Professor	Indian History	28	Nil
4.	Dipu Joseph	M. A, B Ed, M Phil	Assistant Professor	Political Science	2	Nil
Temporary Faculty						
5.	Ligi B. (Guest Faculty)	МА	Guest Faculty	Economics	2	Nil

11. List of senior visiting faculty

Nil

12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty

B A Economics - 20 %

13. Student Teacher Ratio (Programme wise)

B A Economics - 28: 1

14. Number of academic support staff (technical) and administrative staff: sanctioned and filled : Nil

15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG. as highest Degree

Qualification	No. of Faculty
PG	1
M Phil	2
Ph D	2

16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received. : Nil

17. Departmental projects funded by DST-FIST, DBT, ICSSR etc.; and total grants received : Nil

18. Research Centre/facility recognized by the University : Nil

19. Publications:

Publications per faculty : 1.37

Number of papers published in peer reviewed journals (National/International) by

faculty and students : Faculty -8

Books Edited : 3

20. Areas of consultancy and income generated: : Nil

21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....

Dr. Ranjith Mathew Abraham - Best Practices Advisor of the IARF (International Association for Religious Freedom) SACC Human Rights Education Project implemented in India from August 2007 with the support of the Government of Netherland.

22. Student projects

Percentage of students who have done in-house projects including inter Departmental/Programme : Final Year B A Economics students (100%)

Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies : Nil

- 23. Awards/recognition received by faculty/Students : Nil
- 24. List of eminent academicians and scientists/visitors to the Department
 - Dr. B A Prakash, Chairman, Expenditure Commission, Govt. of Kerala
 - Dr. Sudip Mitra, Associate Professor, JNU, Delhi.
 - Dr. M. K. Saralamma, former HoD, Department of Economics, University of Kerala, Kariavattom.
 - Dr. Thomas Issac, Former Finance Minister, Government of Kerala.
 - C. P John, Member, Kerala State Planning Board.
 - Dr. K. K. George, Former Director, Management Studies, CUSAT.
 - Dr. D. Ratnaraj, Director, Department of Economics, John Mathai Centre, University of Calicut.
 - Dr. Iyyampillai, Professor, Bharathidasan University, Thiruchirapalli.
 - Dr. P. K. Mohan Kumar, Professor, DC School of Management and Technology.
 - Dr. M. Jayaprakas, DCDC, University of Kerala.
 - Dr. Manju S Nair, HoD, Department of Economics, Kariavattom, University of Kerala.
 - A. Badharudeen, first Additional District and Sessions Judge, Mavelikara.
 - Adv. Stephen J. Daniel, Bar Association President.
 - Adv. Roy Oommen, Taluk Legal Service Authority (TLSA).
 - Adv. Jyothi Gopinathan, TLSA.
 - Adv. P. Binu, TLSA.
 - Dr. Abdul Salim, Professor, Department of Economics, University of Kerala, Kariavattom
 - Dr. Thomas Varghese, Former HoD, Department of Political Science, MSM College, Kayamkulam.
- 25. Seminars/Conferences/Workshops organized and the source of funding (National/International)

Title of Seminar/Conference/Workshop	Date	Amount sanctioned	Funding Agency	
Inclusive Growth and Indian Economy - Twenty Years of Liberalisation	19 ⁻ 20 September 2012	₹1,50,000	UGC	
National training programme forgirl students on "Human rights"	March 2014	₹1,00,000	NHRD	

Research Methodology	February 2015	₹ 55,000	UGC
Human Rights Perspective on Development and Displacement	February 2015	₹1, 25,000	UGC

26. Students Profile programme/course wise

Name of the Course		cations eived			olled	Pass Percentage	
Course	Nec	erveu		M	F	rercentage	
B A Economics (2012-13)	CAP	1640	41	15	26	66	
B A Economics (2013-14)		2508	57	17	40	Ongoing	
B A Economics (2014-15)		2256	48	12	36	Ongoing	

M = Male F = Female

27. Diversity of students

ВА	% of students from the State	% of students from other state	% of students from other countries
2013	91	9	-
2014	93	7	-
2015	96	4	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

NET : 1 Defence Service : 11

29. Student progression:

Student progression	Against % enrolled			
UG to PG	21.5			
PG to M Phil	-			
PG to Ph D	-			
Employed				
Campus selection	1-2			
Other than campus recruitment	15-18			
Entrepreneurship/Self Employment	25-30			

30. Details of infrastructural facilities

a) Library : -

b) Internet Facility for staff and students : Yes

c) Class Room with ICT facility : One

d) Laboratories : Nil

- 31. Number of students of the Department getting financial assistance from College/University/Government/other agencies
 - College

Students Aid Fund - 5

University

University Merit Scholarship-1

Government

Central Sector Scholarship – 1

Hindi Scholarship- 1

SC/ST - 30

KPCR - 21

OBC Non-creamy layer – 30

OEC-6

- 32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.
 - Personality Development and Orientation class on August 3, 2011, by P. J.
 Oommen, Former HoD, Department of Economics, Bishop Moore College.
 - Department conducts Bishop M. M. John memorial lecture every year.

- ✓ Dr. M. K. Saralamma, 21st November, 2011, Indian Economy through the Reform Period: Development Vs Deprivation.
- ✓ 22 Feb, 2013, Dr. Thomas Issac, Former Finance Minister, Government of Kerala on the topic, Political Economy of Corruption
- ✓ 29 January 2014, Dr. K. K George, Former director of School of Management Studies, CUSAT, on the topic Some Mega Trends in Kerala Society.
- ✓ 4th March 2015, Dr. D. Retnaraj, Director, John Mathai Centre, University of Calicut, on the topic Rapid Urban Growth Debilitated Kerala's Economy.
- Special Orientation class for 2nd and 3rd Year students sponsored by G-Tech computers, 2014.
- Personality Development and Psychological Analysis Class by Dr. Thomas Varghese, Former HoD, Department of Political Science, MSM College, 4th August, 2015.
- A Workshop on "Banking Sector Reforms" in association with BEFI (Bank Employees Federation of India) on August 5, 2011.
- An Inter Department Quiz Competition organized on the event of First International Students Day, 15 October 2015.
- 33. Teaching Methods adopted to improve student learning:
 - Power point Presentations
 Peer teaching by students
 Virtual Class Room
 Presentation led classes
 Monthly assessment
 Weekly seminar presentations
- 34. Participation in Institutional Social Responsibility (ISR) and extension activities
 - On the event of Gandhi Jayanthi, October 2nd 2015, Department initiated to make awareness to "Environmental Protection" by issuing bookmarks of 10 tips to protect and conserve the environment to the nearby locality.
 - Conducted a sample survey on the consumption pattern of the people living in Mavelikara Municipality to identify the people living below the poverty line.
 - To encourage thrift (Saving) attitude among the student, Department initiated to start a "Zero Balance Account" in 2012, Catholic Syrian Bank, Mavelikara amount worth Rs. 5000/- has been deposited. The amount has been later utilized for the study tour purpose.
 - Conducted a sample survey on the Negative Externalities (Pollution Externalities) created by KMML and IREL in nearby locality in 2014-2015.
- 35. SWOC analysis of the Department and future plans
 - Strengths
 - Dedicated, efficient and highly qualified faculty.

-) ICT enabled teaching.
- Representation in Board of studies and Board of Exam valuations.
- Excellent performance of students in arts and sports.
- Academic and personal attention to students.
- The Department is identified as preferred as the student demand ratio is 1:6.
- Active alumni association
- Active participation in NSS and NCC.
- Peer teaching by students
- Remedial Teaching
- Two faculty members are having Ph D
-) Organizing seminars

Weaknesses

- The socio economic background of many of the students admitted in the Department is responsible for poor language competence especially in English.
- Almost 80% of the students are coming from poor families and they have nutrition deficiency.
- The semester system poses a number of problems like coverage of the syllabus at the time schedule, more pressure on students etc.

Opportunities

All facilities available to begin PG Course in Economics and to upgrade the Department as a Research Centre.

Challenges

Difficulty in improving communication skills, mushrooming self financing colleges.



EVALUATIVE REPORT OF THE DEPARTMENT OF COMMERCE

1. Name of the Department : **Department of Commerce**

2. Year of establishment : 1981

- 3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.):
 - B Com (Finance) from 1994 Onwards
 - B Com (Computer Application) from 2015 Onwards
- 4. Names of Interdisciplinary courses and the Departments/Units involved:
 - B Com with
 - Finance and Computer Application as elective papers
 - English, Malayalam and Hindi as common language courses
 - Open courses conducted by all other Departments
 - Attend add on courses offered by other Departments Diploma in Computer application offered by Department of Physics
- 5. Annual/semester/choice based credit system (programme wise):
 - Semester with Choice-Based Credit and Semester System for UG.
- 6. Participation of the Department in the courses offered by other Departments:
 - Open Course (Fundamentals of Financial Accounting) for semester 5 students of other Departments.
 - Add-On Course on Diploma Computerised Accounting—Tally, offered for all students.
- 7. Courses in collaboration with other Universities/industries/foreign institutions etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	_	-
Associate Professor	2	2
Assistant Professor	2	1

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

Sl. No	Name of the Staff	Qualification	Designatio n	Specializati on	Experien ce	No. of Ph D students guided
1.	Dr. Sajeeve V. P.	M. Com., Ph D	Associate Professor	Stock Exchange	21	Nil
2.	Dr. Varughese Anie Kurien	M. Com., Ph D	Associate Professor	Disinvestme nt	21	Nil
3.	Ashish Varughese	M. Com., M Phil, MBA, B Ed	Assistant Professor	FDI	2	Nil
		Tem	porary Facult	y		
4.	Deepa Jayanandan	M.Com, B Ed,	Guest Faculty	Finance	1	Nil
5.	Sreelekha	M. Com., B Ed	Guest Faculty	Finance	1	Nil
6.	Lincy	M. Com	Guest Faculty	Finance	1	Nil

11. List of senior visiting faculty

Prof. Samson Paul James (Entrepreneurship Development)

Dr. Abraham Punnoose (Business Communication)

12. Percentage of lectures delivered and practical classes handled (programme wise) by

temporary faculty : B Com - 50 %

13. Student Teacher Ratio (Programme wise) : B Com (Finance)- 16: 1

B Com (Computer)- 13: 1

- 14. Number of academic support staff (technical) and administrative staff: sanctioned and filled : Nil
- 15. Qualifications of teaching faculty with DSc/ D.Litt/ Ph D/ MPhil / PG. as highest Degree

Qualification	No. of Faculty
PG	3
M Phil	1
Ph D	2



- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received.
 - National -2
 - Total Grants received ₹3,05,000/-

Name of the Investigator	Title of the project and duration				
Dr. Sajeeve V. P.	Financial Literacy and Investment Selection – A Case Study of Investors from Kerala.	₹ 1,50,000	UGC		
Ashish Varughese	Impact of Foreign Institutional Investment on Volatility and Return of Indian Stock Market	₹1,55,000	UGC		

17. Departmental	projects	funded	by	DST-FIST,	DBT,	ICSSR	etc.;	and	total	grants
received				: Ni	1					

- 18. Research Centre/facility recognized by the University : Nil
- 19. Publications:

Publications per faculty : 4

Number of papers published in peer reviewed journals (National/International) by faculty and students : Faculty -12

- 20. Areas of consultancy and income generated:
 - The faculty members offers Income Tax consultancy free of cost.
- 21. Faculty as members in a) National committees b) International Committees c) Editorial Boards : Nil
- 22. Student projects
- i) Percentage of students who have done in-house projects including inter Departmental/

Programme : Final Year B Com students (88%)

Percentage of students placed for projects in organizations outside the institution i.e. in Research laboratories/Industry/ other agencies: Final Year B Com students (12%)

- 23. Awards/recognition received by faculty/Students
 - Dr. Sajeeve V. P. has secured best paper award in the National Seminar organized by Newmans College, Thodupuzha in June 2012.
 - Ashish Varughese has secured best paper award in the National Seminar organized by S. N. College, Cherthala in December 2015.

- Akhil K. Kochumon and Abhijith J. K. participated in National Level softball competition.
- Sachin K. S. has represented University of Kerala in the National level Judo competition held at Punjab.
- Megha K. A. and Vidya Vijayan were the members of college team, secured first prize in University Natakolsav 2014.
- 24. List of eminent academicians and scientists/visitors to the Department
 - U Chiranjeevi (GM, Reserve Bank of India)
 - Alexander (Securities Market Expert)
- 25. Seminars/Conferences/Workshops organized and the source of funding (National/International) : Nil
- 26. Students Profile programme/course wise

Name of	Appli	ications	Selec	Enro	lled	Pass
the Course	Rec	eived	ted	M	F	Percentage
B Com	CAP	4154	62	22	40	92
(2012-13)						
B Com		4158	65	22	43	Ongoing
(2013-14)						
B Com		5280	88	36	52	Ongoing
(2014-15)						

*M = Male *F = Female

27. Diversity of students

B Com	% of students from the State	% of students from other state	% of students from other countries
2013	74	26	-
2014	76	24	-
2015	82	18	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

NET : 3

CA : 10 CS : 2

(* Information not complete)

29. Student progression:

Student progression	Against % enrolled
UG to PG	55-60
UG to CA, ICWAI, CMA, ACCP etc	25-30
PG to M Phil	N A
PG to Ph D	N A
Employed	
 Campus selection 	10-20
 Other than campus recruitment 	60-70
Entrepreneurship/Self Employment	5-10

30. Details of infrastructural facilities

a) Internet Facility for staff and students : Yes

b) Class Room with ICT facility : One

c) Laboratories (**Computer Lab**) : One

- 31. Number of students of the Department getting financial assistance from College/University/Government/other agencies
 - Government

SC/ST - 42

KPCR - 148

OBC Non-creamy layer – 40

OEC-15

- 32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.
 - Commerce Association Undertakes various activities for all-round development of the students
 - One day training programme on soft skill development
 -) One day training programme on Group discussion
 - One day training programme on Interview skills

J	Work shop on Entrepreneurship development
Ĵ	Work shop on Communicative Skills
Ĵ	Orientation Programme for CA, ICWAI aspirants
Ĵ	Career orientation programme for final year students on 8 Dec2mber
20	15
33. Teaching Met	hods adopted to improve student learning:
J	ICT enabled classes
J	Power point Presentations
J	Student seminars
J	Monthly assessment
J	Peer teaching by students
J	Group Discussions
J	Industrial Visits
J	Real Time stock trading and stock game
34. Participation i	in Institutional Social Responsibility (ISR) and extension activities
•	Dr. Sajeeve V. P. is a SEBI certified financial trainer, takes financial
	literacy classes for parents, teachers, nearby educational institutions
	and other organizations
•	Organised Financial Literacy Programme at
) Bishop Hodges H. S. S. Mavelikara.
	Peet Memorial Training College Mavelikara,
	Govt. H. S. S. Mavelikara.
	S. N. College, Cherthala
	Co-operative College, Mavelikara
35. SWOC analys	sis of the Department and future plans
•	Strengths
	Experienced faculty
) ICT enabled teaching
	Quality of students
	Department PTA Meeting.
) University Ranks
•	Weaknesses
) No supporting staff
•	Opportunity
) Increasing demand for commerce courses and related
	professional courses
	High demand in job market
	Potential to upgrade as PG and Research Department.

Challenges

- Heterogeneous students with various communication skills
- Mushrooming self financing colleges.



EVALUATIVE REPORT OF THE DEPARTMENT OF PHYSICAL EDUCATION

1. Name of the Department : **Department of Physical Education**

2. Year of establishment : 1964

3. Names of Programmes/Courses offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD etc.): Nil

- 4. Names of Interdisciplinary courses and the Departments/Units involved: Nil
- 5. Annual/semester/choice based credit system (programme wise):
 - Semester with Choice-Based Credit and Semester System (CBCSS)
- 6. Participation of the Department in the courses offered by other Departments:
 - Open Course for semester 5 students of other Departments.
- 7. Courses in collaboration with other Universities/industries/foreign institutions etc.: Nil
- 8. Details of courses/programmes discontinued (if any) with reasons: Nil
- 9. Number of Teaching posts

Designation	Sanctioned	Filled
Professor	-	-
Associate Professor	1	1
Assistant Professor	1	1

10. Faculty profile with name, qualification, designation, specialization (D.Sc./D.Litt./ PhD/M Phil etc.)

Sl. No	Name of the Staff	Qualification	Designat ion	Specialization	Exp erie nce	No. of Ph D studen ts guided
1.	Capt. Cigi P George	M. P E., M Phil	Associate Professor and HoD	BioMechanics/ Basketball	22	Nil
2.	Jils Varghese	M. P E., M Phil	Assistant Professor	Exercise Physiolgy/ Volleyball	3	Nil

11. List of senior visiting faculty

Nil

- 12. Percentage of lectures delivered and practical classes handled (programme wise) by temporary faculty : Nil
- 13. Student Teacher Ratio (Programme wise)

Physical Education - 650:1

14. Number of academic support staff (technical) and administrative staff: sanctioned and filled

15. Qualifications of teaching faculty with DSc/ D. Litt/ Ph D/ M Phil / PG. as highest Degree

Qualification	No. of Faculty
PG	-
M Phil	2
Ph D	-

- 16. Number of faculty with ongoing projects from a) National b) International funding agencies and grants received. : Nil
- 17. Departmental projects funded by UGC, DST-FIST, DBT, ICSSR etc.; and total grants received
 - Total grants received: ₹8,50,000/-

Name of the scheme	Title of the project and duration	Amount sanctioned	Funding Agency
Concrete Basketball court	Floor concrete for basketball court under XIth plan	₹ 2,50,000/-	UGC
Morrum Volleyball court	Construction of a morrum volleyball court	₹ 100,000/-	UGC
Equipments		₹ 5,00,000/-	UGC

18. Research Centre/facility recognized by the University : Nil

19. Publications:

Publications per faculty : 3

Number of papers published in peer reviewed journals (National/International) by faculty and students : Faculty -6

- 20. Areas of consultancy and income generated: Nil
- 21. Faculty as members in a) National committees b) International Committees c) Editorial Boards....: Nil
- 22. Student projects: Nil
- 23. Awards/recognition received by faculty/Students (See list in 5.3.2)
- 24. List of eminent academicians and scientists/visitors to the Department: NA
- 25. Seminars/Conferences/Workshops organized and the source of funding (National/International): Nil
- 26. Students Profile programme/course wise

Name of	Applicatio	Selecte	Enro	olled
the Course	ns Received	d	M	F
(sports quota)	55	17		
(sports quota)	54	20		
(sports quota)	60	20		

^{*}M = Male *F = Female

27. Diversity of students

Physical Education	% of students from the State	% of students from other state	% of students from other countries
2013	98	2	-
2014	96	4	-
2015	98	2	-

28. How many students have cleared National and State competitive examinations such as NET, SLET, GATE, Civil Services, Defence Services, etc:

Defence Service : 15

29. Student progression: Nil

a) Internet Facility for staff and students : Y	a)	t Facili	acility for staff	and students	:	Yes
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- 31. Number of students of the Department getting financial assistance from College/University/Government/other agencies
 - College

Students Aid Fund - 3

- 32. Details on student enrichment programmes (Special Lecture/Workshops/Seminar) with external experts.
 - Coaching camp and practice matches
- 33. Teaching Methods adopted to improve student learning:
 - J ICT enabled classes
 J Power point Presentations
 J Lecture Method
 J Assignment and Seminar
 J Group Discussion
 J Problem Solving
 J Presentation
 J Practical sessions with demo
- 34. Participation in Institutional Social Responsibility (ISR) and extension activities
 - Sports club (S3 Students)
 - Organization of tournaments (intramural and extramural)
 Fitness activities
 Sports centers visit (SAI, LNCPE)
 - Organization of intercollegiate tournaments.
 - University of Kerala intercollegiate North Zone Volleyball championship (September 2014)
 - University of Kerala Judo intercollegiate championship (December 2014)
 - University of Kerala Judo intercollegiate championship (2011 to 2013)
 - Annual Athletic Meet
 - J Inter Departmental Games
 - Run Kerala Run (In connection with National Games)
 - Penalty Kick (In connection with world cup football championship)
 - Capt. Cigi PGeorge has been serving as the NCC Officer for women for 10 years.

- Capt. Cigi PGeorge has attended National Integration Camps at Srinagar and Noida in the year.
- Capt. Cigi PGeorge has been serving as the Vice President of Allepey district Netball Association.
- Capt. Cigi PGeorge has been serving as the Vice President of Allepey district Softball Association.
- Jils Varghese is serving as the coach cum manager of University of Kerala volleyball (M) for the year of 2014 and 2015
- Jils Varghese is serving as the coach of University of Kerala volleyball (W) for the year of 2014.
- Jils Varghese is serving as the coach cum manager of University of Kerala Judo
 (M) for the year of 2013.
- Jils Varghese is serving as the Sports Club Co-ordinator since July 2014.
- 35. SWOC analysis of the Department and future plans

Strengths

	Allotment of Basketball (W) sports hostel by Kerala State Sports
	Council.
	Collaboration with Institutions/other universities are initiated
	Resourceful faculty
V	eaknesses
	Numbers of feeding schools were less.
	Lack of modern facilities
	Gymnasium is not up to the mark with modern multipurpose
	stations.
	Recognitions and awards received by faculty and students is
	negligible
	Number of Faculty with PhD is less.

Opportunities

Job opportunities are more for students who involved in sports activities.

Increasing demand for Physical Education teachers.

Increasing demand for fitness instructors in the modern society.

Challenges

Semester duration is often too short to cover the syllabus.

Most of the players were admitted to defense during the course time.

- The busy schedule of the semester system often prevents students from participating in extra-curricular and co-curricular sports activities.
- J Lack of indoor stadium



G. POST ACCREDITATION INITIATIVES

The accreditation process has created a positive and catalytic impact on the functioning of the College. The Constructive evaluation and suggestion made by the peer team has significantly influenced the functioning of all arms of the College. Quality consciousness has seeped in to every aspect of day to day activities of the College. We present below the recommendations made by the peer team and the initiatives taken by the College in this regard.

1. Efforts may be pursued to start short term programmes in the cutting edge areas which may be of particular benefit in career relevance.

We have utilised every opportunity to offer new programmes in cutting edge areas under the UGC Add on courses. The following short term programmes in cutting edge areas with career relevance was started.

Name of the Course	Goals and Objectives	Agency	Organizing Period
Certificate Course in Web Designing and Office Automation (1 yr)	To acquire basic knowledge in web designing and office automation	UGC Career Oriented Course	2014-15
Diploma in web designing and office Automation (2 yr)	To acquire knowledge in web designing and office automation	UGC Career Oriented Course	2014-16
Advanced Diploma in Web Designing and Office Automation (3 yr)	To acquire advanced knowledge in web designing and office automation	UGC Career Oriented Course	2014-17
Certificate Course in Medical Laboratory Technology	To develop the skill in Medical Lab Techniques	UGC Sponsored Add on Course	2009-13
Course in Polymer Nano	To give and introduction	UGC Career	2014-15

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composites (1 year)	Nano Composites	Oriented Course	
Course in Journalism and Mass Communication	To develop a flair for writing and reporting	UGC Sponsored Add on Course	2011-13
Certificate course in computerized Accounting (Tally)	To master office accounting procedures	University of Kerala	2011, 2012
Diploma in Computer Applications(6 months)	To impart basic knowledge in computer	University of Kerala	2015
PSC and Bank Recruitment Coaching	To provide coaching for competitive exams and Bank tests	UGC Sponsored	2010
Professional Diploma in Network Engineering with Laptop Chip Level Technology (Keltron Course)	To provide training on servicing of laptop, palmtop, wireless technology, networking , Wi-Fi connectivity	KELTRON	2011 - ongoing

2. Efforts need be made to offer more programme options in professional areas both at UG and PG level

In the post accreditation period the institution was successful in adding one UG and one PG programme.

- MSc Programme in Botany was started in 2013.
- B Com with Computer Application was started in 2014 which is a professional course with high demand as it opens up a large window of opportunities within and outside the country in commercial and industrial establishments.
- Now the College offers 11 UG programmes, 4 PG programmes and 2 PhD programmes.

Proposal for 3 aided courses – M Com, MA Malayalam and M Sc Zoology and

M Phil Physics – submitted to the University

- 3. Exploring the research potentials of the faculty, provision of consultancy services be encouraged by establishing formal linkages with industries/institutions.
 - The PG Departments of Physics and Chemistry have been declared DST-FIST sponsored Departments eligible for an initial grant of Rs.1 Crore.
 - We have five major and 29 minor projects sponsored by UGC, CSIR, DST and KSCSTE.
 - We have 184 publications.
 - Dr. Laly A Pothan of the Department of Chemistry has been nominated to the Fellow of the Royal Society of Chemistry, which is a major approval for the research activities of the institution. She is also an Emeritus Professor in the Department of Chemistry.
 - Antimicrobial screening is a consultancy service offered by the Department of Botany and Biotechnology
 - Department of Chemistry has research collaborative arrangements with:
 - ✓ Lulea University of Technology, Sweden
 - ✓ Agro Paris Tech, France
 - ✓ Hebrew University, Israel
 - ✓ Kalasalingam University, Tamil Nadu
 - ✓ Mahatma Gandhi University, Kottayam
 - Department of Physics has collaborative arrangements with:
 - ✓ Department of Chemistry, University of Antwerp, Belgium
 - ✓ Department of Inorganic Chemistry, Charles University in Prague,
 Czech Republic

- ✓ Department of Physics, University of Helsinki
- ✓ Solid State Physics Division, Bhabha Atomic Research Centre, Mumbai
- ✓ Department of Studies in Chemistry, Mangalore University
- ✓ Optics Group, Raman Research Laboratory, Bangalore
- ✓ Cochin University of Science and Technology, Cochin
- ASAP English language and leadership skill training for students
- Blood group testing camps in the nearby villages conducted by the Department of Zoology with the assistance of the Medical Laboratory Technology students.
- Plant identification for PG and research students done by the Department of Botany and Biotechnology
- Water Quality Analysis is conducted by the Department of Chemistry.
- Faculty members readily provide their consultancy service to the nearby schools in imparting basic science courses, computer skills, spoken English & Hindi
- J KELTRON Course
- Patent-L.A. Pothan-Chemistry

(Title: Process for synthesis of nanofibrils of natural fibres by steam Explosion

Patent Number: IN200702267-14

Inventors: Abraham E., Cherian B.M., George C.N., Pothan L.A.

Patent Assignees and Codes: BISHOP MOORE COLLEGE (BISH-Non-

standard

Derwent Primary Accession Number: 2010-B44005 (11))

- Free of Cost Income Tax Consultancy Service was given to the general public under the auspices of Department of Commerce
- Financial literacy programmes conducted at Peet Memorial Training College, Mavelikara, S N College, Cherthala and Co-operative College, Mavelikara

4. The ICT thrust in teaching /learning need to be strengthened/ expanded further.

- The number of computers has increased from 50 computers in 2010 to about 141 in 2015.
 The introduction of CBCSS has made the study of *Informatics* a compulsory
- Projector enabled classrooms are provided in every Department to facilitate ICT enabled teaching.
- J ICT training programmes were arranged for teachers.
- The Departments of Physics and Chemistry have e-learning rooms.

paper where the students learn about Information Technology.

- Access to online journals is facilitated through N List.
- The newly sanctioned course B Com with Computer Application gives thrust in ICT teaching/learning. Virtual classes are offered on various computer application packages including Tally, Excel, Access, Internet, Networking and Spoken English.
- J English Media Room
- Students are encouraged to take seminars using Power Point presentations.

5. Sports facilities including the play ground need improvement.

- New Volley ball and Basket ball courts have been constructed.
- The College Volleyball team has risen to occupy a prominent position in the University, winning the Kerala University North zone Inter collegiate volley ball tournament in 2014.
- The Sports Council of Kerala has sanctioned a sports hostel for Basketball (women). Sports women are given boarding and lodging facilities along with training in Basketball by a recognised coach of the Sports Council of Kerala.
- A new post of Physical Education Director was sanctioned during this period.

 Now we have two faculty members in the Physical Education Department-



- Capt. Cigi P George and Mr. Jils Varghese. This has enormously improved the teacher-student ratio in Physical Education.
- The College has produced International players in Soft ball. It is among the few institutions promoting Soft ball.
- The College also provides facilities for Judo. It hosted the Kerala university Judo competition continuously for two years.
- First aid facility is made available in the Physical Education Department.

6. More thrust may be given in faculty development activities, particularly in latest pedagogy and e-content preparation.

- The Departments have organised national workshops and seminars to keep the faculty abreast of the latest developments in their respective area. Three international conferences, 16 national conferences/seminars/workshops, and a large number of lectures and talks were organised during the period.
- Efforts were made to bring the latest developments in pedagogy by organising a NAAC sponsored national seminar on the topic "Emerging Dimensions of Quality 'in Higher Education". The seminar was inaugurated by Shri T.P. Sreenivasan IFS, Vice-chairman, Kerala State Higher Educational Council.
 - ✓ The Deputy Advisor of NAAC, Dr. M.S. Shyamasunder, delivered a lecture on "the role of NAAC in improving the quality of Higher Education".
 - ✓ Dr. Achuthsankar, Director, State inter University Centre for Excellence in Bio-informatics, University of Kerala delivered a lecture on "Micro Aspects of Quality in Higher Education"
 - ✓ Dr. Bhaskar N Joshi (former NAAC consultant) presented a paper on "Quality Initiatives in Higher Education NAAC and Beyond".
 - ✓ Fr. Dr. Gilson John delivered a lecture on "Ways and Means of Improving Quality in Higher Education"

- ✓ Prof. J E Kunnath delivered a lecture on "Good Practices: Experiences of CMS College, Kottayam"
- A Noted Psychologist, Dr. Justin Padamadan, delivered a talk on "Psychological Aspects of Teaching and Learning".
- The Management of the College organised 'FEEL teacher' Learning and Development Intervention Programme for teachers, conducted by the 'College for Leadership and Human Resource Development' (CLHRD) during 25 27 April 2013 at CMS College, Kottayam.
- Organised one refresher course and 3 workshops for teachers.
- Organised one IT oriented training course for teachers.

7. Dropout rate needs careful attention.

The recommendation about dropout rates was given careful attention. It is found that the dropout rates are not a cause for concern because the dropout rates are high not due to students dropping out prematurely, but due to securing jobs in defence services, securing admission to professional courses or due to some personal issues. The Transfer Certificates are demanded due to the availability of better opportunities. However the mentors take special care to identify the needs of the students and motivate them to pursue their higher studies. General and Department PTA meetings are held to give the parents opportunities to meet the faculty in the respective Departments and enquire about their wards.

8. The infrastructure may be made friendlier for differently abled students.

The post accreditation period has been a period during which considerable efforts were made to increase the infrastructural facilities.

- Ramp with hand rail arrangement is provided in the College campus and hostel.
- A separate toilet for differently abled students was installed.

- Wheel chair facility is available for persons with disability.
- Special facility is provided to differently abled students to write exams with the help of scribe.
- Seats are provided to suit the convenience of differently-abled students in classrooms.
- All classes of physically challenged students are arranged at ground floor

9. There is a need to have budget of the College and departmental budgets.

This recommendation made by the peer team has been incorporated. The College budget is prepared and presented for approval in the Governing Council.

The Departments do not generate any income on their own hence there is no scope for an independent department budget.

10. The institution should expedite the implementation of INFLIBNET etc. complete computerization of the library.

- The College subscribes to N List of the INFLIBNET whereby more than 5000 on line journals can be accessed
-) OPAC facility is provided in the library
- Library possesses an excellent collection of more than 52000 books.



BISHOP MOORE COLLEGE, MAVELIKARA

ESTABLISHED IN 1964

A CHRISTIAN MINORITY INSTITUTION OWNED BY THE CSI MADHYA KERALA DIOCESE AFFILIATED TO THE UNIVERSITY OF KERALA AND RECOGNISED BY THE UGC UNDER SEC. 2 (f) AND 12 B OF UGC ACT

MAVELIKARA - 690 110, KERALA, INDIA, PHONE: Off. 0479-2303260, 2303230 Website: www.bishopmoorecollege.in s-mail: bpmoorecollege@gmail.com

Date.....

DECLARATION BY THE HEAD OF THE INSTITUTION

I hereby declare that the data included in this Self Study Report (SSR) are correct according to the best of my knowledge.

This SSR has been prepared by the institution after internal discussions and no part thereof has been outsourced.

I am aware that the Peer Team will validate the information provided in the SSR during the Peer Team Visit.

Mavelikara

28-04-2016

TOOSE CO.

Dr. Sabu George



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MAVELIKARA - 690 110, KERALA, INDIA. PHONE: Off. 0479-2303260, 2303230 Website: www.bishopmoorecollege.in e-mail: bpmoorecollege@gmail.com

Date.....

Certificate of Compliance

(Affiliated College)

This is to certify that Bishop Moore College, Mavelikara, fulfills all the norms

- 1. Stipulated by the Affiliating University
- Affiliation and Recognition are valid as on date

In case the affiliation/recognition is conditional, a detailed enclosure with regard to compliance of conditions by the institution will be sent.

It is noted that NAAC's accreditation, if granted, shall stand cancelled, automatically, once the institution loses its University affiliation or recognition by the Regulatory council, as the case may be.

In case the undertaking submitted by our institution is found to be false, then the accreditation given by NAAC is liable to be withdrawn. It is also agreeable that the undertaking given to NAAC will be displayed on the College website.

Mavelikara

28-04-2016

Dr. Sabu George

PRINCIPAL PRINCIPAL BISHOP MOORE COLLEGE MAYELIKARA - 890 110

UNIVERSITY OF KERALA

DR. M. JAYAPRAKAS
DIRECTOR .
COLLEGE DEVELOPMENT COUNCIL



Prome (Off), 0471-23065
Res: 0470-26576
Fax: 91-471-23071
Website: <a href="mailto:www.kcralaunin.craits.gr

Date:25.09.200

CERTIFICATE

. This is to certify that the Bishop Moore College, Mavelikara is included in the list of colleges under 2(f) and 12 B of the UGC Act 1956 published by the UGC in the website and the College has been receiving grants from UGC for colleges under 2(f) and 12 B.

Yours faithfully,

DIRECTOR COLLEGE DEVELOPMENT COUNCIL

Office of the Deputy Director of Collegiate Education, Kollam.

Dated: 29 04 - 2016

CERTIFICATE

Certified that Bishop Moore College, Mavelikara is a Private Aided College and the salary paid by the State Government of Kerala.

DEPUTY DIRECTOR OF COLLEGIATE EDUCATION





Phone: 0471-2305631 Fax: +91-471-2307158 Email: regrku@gmail.com

UNIVERSITY OF KERALA

Thiruvananthapuram, Kerala, India - 695034

(Established as University of Travancore by the Travancore University Act in 1937 and reconstituted as University of Kerala by the Kerala University Act of 1957 and presently governed by the Kerala University Act of 1974 passed by the Kerala State Logislative Assembly)

(Re-accredited by NAAC with 'A' Grade)

No.Ac.BII/43956/2015

Dated: 14.10.2015.

CERTIFICATE

This is to certify that the **Bishop Moore College, Mavelikkara** is a Aided College permanently affiliated to the University of Kerala since the year 1964, offering the following Courses;

SI	Course	Branch	Seats
No		Economics	50
1	ВА	Economics	40
2		Malayalam	
3		English Language and Literature	40
4		Mathematics	40
5	B,Sc	Physics	32
6		Chemistry	32
7		Botany	32
8		Zoology	32
9		Botany & Biotechnology	24
10	B.Com	B.Com(Elective Computer Application)	40
11		B.Com (Elective Finance)	50
12	MA	English Language and Literature	15
13	M.Sc	Physics	10
14		Botany	12
15		Analytical Chemistry	10

This certificate is issued to the Principal, Bishop Moore College, Mavelikkara for

producing before the UGC



REGISTRAR



राष्ट्रीय अल्पसंख्यक शैक्षणिक संस्था आयोग GOVERNMENT OF INDIA NATIONAL COMMISSION FOR MINORITY EDUCATIONAL INSTITUTIONS

F. NO. 1352, 1353 & 1354 OF 2009 (Ploor, Jeevan Tara Building, 5. Sansad Marg प्रथम तल, जीवन तारा भवन, पू. संसद मार्ग Patel Chowk, New Delhi - 110001

ON CONSIDERATION OF THE DOCUMENTARY EVIDENCE PRODUCED BEFORE THE COMMISSION, THE COMMISSION IS SATISFIED THAT FOLLOWING COLLEGES NAMELY:-

SI. No.	· , File No.	Name of the Colleges CMS College, College Road, Kottayam, Kerala.	
1.	F. No. 1352 of 2009		
2.	F. No. 1353 of 2009	Bishop Moor College Kallumat M.	
3.	F. No. 1354 of 2009	Alappuzha, Kerala. Bishop Speechly College for Advance Studies, Pallam, Kottayam, Kerala.	

MANAGED BY THE CHURCH OF SOUTH INDIA TRUST ASSOCIATION, ARE MINORITY EDUCATIONAL INSTITUTIONS WITHIN THE MEANING OF SECTION 2(g) OF THE NATIONAL COMMISSION FOR MINORITY EDUCATIONAL INSTITUTIONS ACT 2004. CONSEQUENTLY, IT IS HEREBY DECLARED THAT THE COLLEGES ARE MINORITY INSTITUTIONS EDUCATIONAL COVERED UNDER ARTICLE CONSTITUTION OF INDIA. 30 OF

GIVEN UNDER MY HAND AND THE SEAL OF THE COMMISSION ON THIS 8TH DAY OF FEBRUARY, 2010.