



**GURU ANGAD DEV
TEACHING
LEARNING
CENTRE**



सत्यमेव जयते

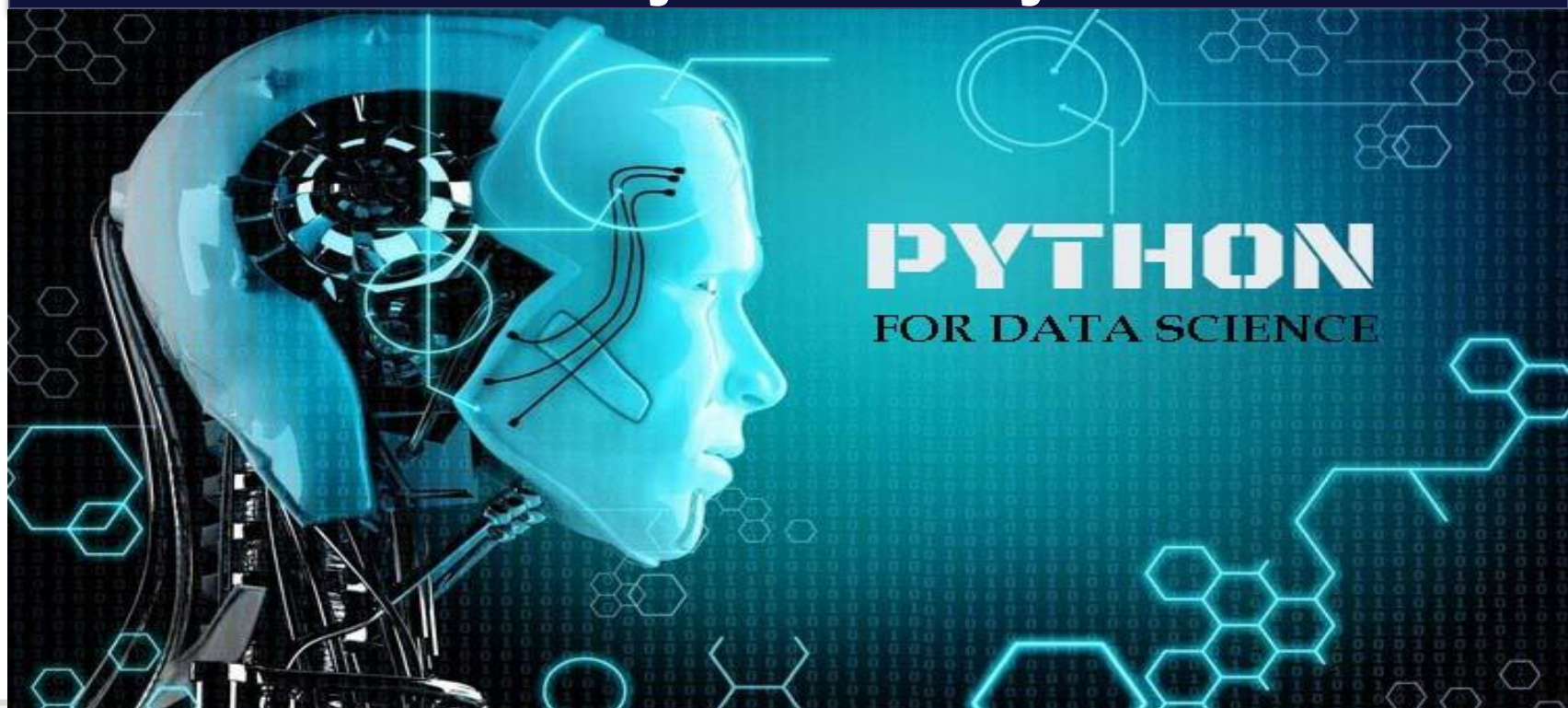
**MINISTRY OF
EDUCATION**

GOVT. OF INDIA

**PANDIT MADAN
MOHAN
MALVIYA
NATIONAL
MISSION ON
TEACHERS AND
TEACHING
(PMMMNTT)**

45 Hours Certificate Course on Python for Data Science

01 January 2023 31 May 2023



**Bishop Moore College
Mavelikara**



**St. John's College
Agra**



**St. Stephen's College
Pathanapuram**



**Catholicate College
Pathanamthitta**



**Assumption College
Changanacherry**



**Sree Narayana Polytechnic College
Kottiyam**

Topics Covered:

- Introduction to Data Sciences Concepts
- Data structures in python
- Reading and writing different kinds of data formats in python
- Data Pre-processing using Python
- Visualization of Data
- Hands-on Session on the Python and Data visualization
- Research Issues and Challenges

**To Register
Click here**

About the Certificate Program

As Python programming language is framed for Data Science applications it is essential to visualize Data science applications using Python to ripe maximum benefits. Hence, it is important to bring awareness among researchers & academicians and train manpower on data science using Python programming to do innovative research, projects and to create knowledge base.

Eligibility of 45 hrs Certificate Program

- ❖ *UG and PG Students all disciplines*
- ❖ *Research Scholars*
- ❖ *Polytechnic diploma and Engineering students*
- ❖ *All Science Faculty Members & Research Scholars Can Apply*
- ❖ *Registration fees: **Rs.500/-** (Inclusive of Course Fee, Study Material & Certificate)*
- ❖ *Last Date for Registration: **5 pm on 28 December 2022***

About GAD-TLC of MHRD

“Guru Angad Dev Teaching Learning Centre” is a centre of MHRD under the Pandit Madan Mohan Malviya National Mission on Teachers and Training (PMMMNTT) of the MHRD, Govt. of India. The objectives of the Teaching Learning Centre are to prepare Modern age teachers. Under this centre many National level activities like Seminars, FDPs and workshops at both basic and advanced level are being conducted to empower the teachers in ICT skills, develop teaching kits / teacher's tools and ICT empowered pedagogies to enhance teaching-learning process. In its various programmes, around 55,000 teachers across the nation have benefitted till now. GAD TLC is also organizing Student Specific Training Courses to upgrade their skills as required for their Professional Development.

Prof. A.K. Bakhshi
Vice-Chancellor, PDM
University, Haryana
Chairman, GAD-TLC

Prof. K.V. Bhanu Murthy
Professor, DTU
Vice-Chairman,
GAD-TLC

Prof. Jaswinder Singh
Principal,
SGTB Khalsa College
Director, GAD-TLC

Dr. Vimal Rarh
Project Head &
Joint Director, GAD-TLC



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About the Collaborating Colleges



Bishop Moore College, Mavelikara, established in 1964 and affiliated to the University of Kerala, has been awarded A grade by NAAC in the 3rd cycle of accreditation and ranked 76 among the Colleges in India in the NIRF ranking 2020. The College offers 11 undergraduate, four postgraduate and two research programmes in Science, Commerce, Arts and Humanities along with two UGC-sponsored add-on courses, and also provides opportunities for students to carry out Summer Research Projects at reputed institutes in the country. The undergraduate programmes in the Science departments are supported under the DBT-STAR College scheme. The College has become an active hub of research with well equipped laboratories, over 100 publications in international journals, a number of completed major and minor research projects, the research facilities being enhanced by utilizing funds under the DST-FIST scheme and KSCSTE SARD project scheme. The research centres have collaborative projects with institutes like the UGC – DAE Consortium for Scientific Research, BARC Mumbai and IUAC, Delhi.



St. John's College, Agra, was established in 1850 by the Church Missionary Society of England through the efforts of the Agra C.M.S. Association which came into being in 1840. From 1862 to 1888 the College remained affiliated to Calcutta University and later up to 1927 to Allahabad University. In 1927 with the formation of Agra University, the then Principal of the College Dr. A.W. Davies became its first Vice-Chancellor and the College was affiliated to the Agra University. The college became a First Grade College in 1891 with B.A. and LL. B. classes, and affiliation was granted in 1893 for postgraduate classes. Thus it has the rare distinction of being a postgraduate institution of more than a century's standing. The college has sixteen post graduate departments with facilities for research and three under graduate departments. The college also runs five self-financed recognized courses viz, B.Com(Vocational), B.B.A., B.Ed, D.El.Ed, M.A(Urdu), Post Graduate Diploma in Clinical Psychology and two partially self-financed degree programs in B.Sc with Industrial Chemistry & BSc with Computer Science. The foundation stone of the Centenary Wing was laid by Bharat Ratna Sarvapalli Radhakrishnan, former President of India, in 1958 and was opened by Bharat Ratna Pt. Jawaharlal Nehru, the first Prime Minister of India, in 1959, with the words "I have come to pay tribute to this temple of learning." The College has very distinguished alumni, the foremost of them being the late Dr. Shanker Dayal Sharma, the former President of India present situation.



St. Stephen's College, Pathanapuram was founded in 1964 after the name of St. Stephen, the first martyr of Christianity. The college was the fulfilment of a long cherished desire of its founder, His Grace The Most Rev. Mar Thoma Dionysius. The college was formally declared open by His Holiness Mar Baselios Augen-I, Catholicos of the East on 8th July 1964. In 1968 the College was shifted to its present site, in the serene village of Maloor, 6 kms away from Pathanapuram. Department of Physics, started functioning with the inception of the college in the year 1964. In the year 1979 with the launch of B.Sc. Physics degree course. The physics department was then elevated to the status of 'Postgraduate Department of Physics' with the commencement of the M.Sc. Physics course in the year 2001. The department was always blessed with eminent and industrious teachers in each of its phases. Their expertise and vision has lessened the burden on the present generation in building the basic amenities for the department.



Catholicate College, Pathanamthitta founded in 1952 on the serene Basil Hills has a rich legacy of almost seven decades and is affiliated to Mahatma Gandhi University, Kottayam.. The motto of this temple of learning is "Fear of the Lord is the beginning of wisdom." It imparts value-based education aimed at the holistic and intuitive growth of the individual so as to fulfill the vision of creating an educated and enlightened society for a brave new world. It has been re-accredited by NAAC with CGPA 3.60, A Grade and is one of the Thirteen special grade colleges in Kerala. The college has eight research departments and offers fifteen PG Programmes, thirteen UG Programmes and one Integrated MA Programme in the aided stream. The college was identified by the department of science and technology, government of India, for FIST funding. The college has been awarded ISO 9001-2008 certification. Current year, the college is celebrating its platinum jubilee. The college has been endeavoring to shape the destiny of a community in the fullest spirit of its stated mission, an educated, enlightened society for a brave new world.



Assumption College (Autonomous), Changanacherry has completed 71 years of memorable service in the field of higher education. The victorious journey in creating enlightened, empowered and socially committed women without compromising the academic standards yet upholding the noblest Christian values is possible only with the constant guidance of the heavenly patron 'The Lady of Assumption'. After attaining autonomous status in 2016, the college strives more in imparting excellence in quality education, incorporating greater space for creativity and innovation. The Department of Physics, which started from the very inception of the college is one of the excellent department offering BSc Physics Programme and MSc Physics Programme with specialisation in Solid State Electronics. A major uplift of the Department took place in 2012 when the department was selected for DST-FIST programme. The Department which got recognised as Research Centre under Mahatma Gandhi University in November 2019 is presently involved in intense research activities.



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Sree Narayana Polytechnic College, Kottiyam near Kollam, Kerala in south India. It is named after the Saint and social reformer “Sree Narayana Guru”. SNPTC was founded in 1957, by the Sree Narayana Trusts, Kollam under the initiative of the secretary, the late Sri.R.Sankar, former chief minister of Kerala. In the period 2006-07, the college celebrated its Golden Jubilee. It is a technical institute, approved by the All India Council of Technical Education (AICTE) and is located in a 15-acre campus at Kottiyam, 12 km from the Kollam city. The college has more than 50 faculty and 750 students. The governing body of the college is constituted by the Kerala Board of Technical Education is chaired by S.N Trust. The college started functioning with three courses: Mechanical Engineering (63 seats), Civil Engineering (63 seats) and Electrical Engineering (63 seats). In 2000 it started Electronics Engineering (63 seats).

Certificate Program For
Students

**UG students ,
PG students, Research
Scholars &
Others**

**Successful Completion
Certificate:**

Based on Attendance,
Online MCQ Test ,
Assignments & Projects
(50% or above)
Attendance & Feedback
Compulsory

**Flexible Online Mode
Live Sessions-Saturdays
& Public Holidays**

Organizing Committee

Prof. S. P. Singh, Co-Patron, Principal, St. John's College, Agra
Dr. Jacob Chandy, Co-Patron, Principal, Bishop Moore College, Mavelikara
Dr. Koshy P M, Co-Patron, Principal, St. Stephens's College Pathanapuram
Dr. Philipose Omman, Co-Patron, Principal, Catholicate College, Pathanamthitta
Dr Anitha Jose, Co-Patron, Principal, Assumption College. Changanacherry
Dr. Sandeep V, Co-Patron, Principal, S.N polytechnic College, Kottiyam, Kollam.
Dr. Ranjith Mathew Abraham, Vice Principal Bishop Moore College, Mavelikara
Dr. Susan Verghese P., IQAC Co-Ordinator, Head of the Department of Chemistry, St. John's College, Agra
Dr. D. Sajan, Co-Ordinator, Head of the Department of Physics, Bishop Moore College, Mavelikara
Ms.Shibi Krishnan, Co-Ordinator, Head of the Department of Physics, St. Stephens's College Pathanapuram
Dr. Dhanya I, Co-Ordinator, Head of the Department of Physics, Catholicate College, Pathanamthitta
Dr.Marina Aloysius, Co-Ordinator, Head of the Department of Physics, Assumption College Changanacherry
Ms.Sema S S, Co-Ordinator, Head of the Department of Electrical and Electronics, S.N polytechnic College, Kottiyam
Dr Merin George, Convenor, Department of Physics, Bishop Moore College Mavelikara
Dr. Lija K Joy, Convenor, Department of Physics, Bishop Moore College Mavelikara
Ms. Suchitra S, Convenor, Department of Physics, St. Stephens's College Pathanapuram
Ms. Rini Varghese, Convenor, Department of Physics, St. Stephens's College Pathanapuram
Dr. Achamma George, Convenor, Department of Physics, Catholicate College, Pathanamthitta
Mr. Anoop P D, Convenor, Department of Physics, Catholicate College, Pathanamthitta
Dr.Sherin Thomas, Convenor, Department of Physics, Assumption College Changanacherry
Ms.Joselin Xavier, Convenor, Department of Physics, Assumption College Changanacherry
Mr. Akhash Kumar K.S, Convenor, Department of Electrical Engineering, S.N polytechnic College, Kottiyam.
Mr, Sabarigireesh C, Convenor, Department of Electrical Engineering, S.N polytechnic College, Kottiyam

Objectives of the Program

The 45 hours Certificate Online Course on Python for Data Science is aimed at imparting knowledge and training on the fundamentals of interdisciplinary field of data science with its different aspects and applications. The main objective is to make the participants familiar with emerging field of data science along with the preparation of data for extracting valuable insights from vast amount of heterogeneous data. Expert lectures will be delivered by faculty members from academia. This course may be beneficial to UG students, PG students, faculty members & research scholars who intend to practice/begin research in the field of processing and analysis of data using advanced techniques such as AI/ML/DL etc.

Outcomes

The students and research scholars will be able to

- ❖ Learn tools and languages used to data analysis using Python
- ❖ Understand the concept and use of data mining techniques
- ❖ Understand and implement the algorithms for large amount of data using machine learning techniques such as regression, classification, clustering and to perform graphical data analysis
- ❖ Understand visualization for distribution analysis, correlation analysis, multivariable analysis, ranking analysis, deviation analysis
- ❖ Understand how to leverage the insights from big data analytics and to help them to expertise in the field of data science