



## TEACHING LEARNING CENTRE

Ramanujan College

(Accredited Grade 'A++' by NAAC)

University of Delhi

in collaboration with

DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING  
MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY

Delhi

under the aegis of

Pandit Madan Mohan Malaviya National  
Mission on Teachers and Teaching

Ministry of Education

is organising an

One-week Faculty Development Programme  
(Hybrid Mode - Both Online and Offline)

# Python with Data Analytics

07 - 13 August 2023

**Call for Registration & Participation**

# RAMANUJAN COLLEGE

Ramanujan College, a constituent College of the University of Delhi was established in 1958 as an evening college. The College has been accredited Grade “A++” by the National Assessment and Accreditation Council (NAAC) in its Second Cycle.

At present, Ramanujan College offers sixteen undergraduate programmes in different disciplines. The College has been awarded the DDU KAUSHAL (Deen Dayal Upadhyay - Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood) Kendra (2016) by UGC and Teaching Learning Centre (2017) by the Ministry of Education. The College also offers short-term diploma, certificate, and executive development programmes on contemporary & skill - oriented themes to complement the regular graduation courses.

It is also the Study Centre of Non-Collegiate Women Education Board (NCWEB) and Indira Gandhi National Open University (IGNOU) for various courses. In 2018, the College conducted a Course on Human Rights, Environment and Ethics through its National Resource Centre (NRC), under the Annual Refresher Programme in Teaching (ARPIT) scheme of MoE.

The College has also entered into Memorandum of Understanding(s) with foreign universities. It is also working for collaboration with other higher education institutions located in remote areas of the country, under the Vidya Vistar Scheme of the University of Delhi.



# TEACHING LEARNING CENTRE RAMANUJAN COLLEGE

Teaching Learning Centre (TLC) is mandated by the Ministry of Education (MoE) to organise Faculty Development Programmes (FDPs), Faculty Orientation and Induction Programmes (FIPs), discipline specific and interdisciplinary Refresher Courses, conferences, workshops, through offline and online modes. These programmes are based on indepth subject knowledge, quantitative and qualitative research methodologies, and on an interdisciplinary approach as is envisaged in the National Education Policy (NEP), 2020.

The TLC, Ramanujan College has been set up with the aim of "Reaching the Unreached" teachers in terms of regional diversity and geographically remote areas of the country. It has successfully conducted more than hundred learner-centric programmes since October 2017 and trained over one lakh teachers across the country in various discipline specific and interdisciplinary programmes.

The courses are offered through the customised Learning Management System (LMS), designed by the College's Research Development and Services Cell. It is predominantly participant-friendly and incorporates evaluation methods and comprehensive feedback systems to judge learning outcomes. The LMS is hosted on CLOUD with high scalability and reliability. The College has installed its own Cloud Infrastructure to host its servers for research and data analysis.

**In the TLC Programmes distinguished and internationally acclaimed resource persons deliver lectures and conduct sessions on wide ranging disciplines/topics of relevance in the contemporary and ever evolving global scenario to benefit the teaching fraternity, corporates and researchers. The sessions are also uploaded for larger audiences on the official [YouTube Channel of the College](#).**

# MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY

Maharaja Agrasen Institute of Technology was established in 1999 by Maharaja Agrasen Technical Education Society promoted by a group of well-known Industrialists, Businessman, Professionals and Philanthropists with an aim to promote quality education in the field of Technology and Management. Since then, MAIT has grown from strength to strength to emerge as one of the top technical institutes among the private Institutes and has been constantly ranked amongst the top engineering Institutes by DATAQUEST.

The institute began its first batch of 180 B.Tech. students in 1999 and at present, MAIT offers Bachelor's Degree in 5 disciplines of Engineering - Computer Science and Engineering (240 students intake), Electronics and Communication Engineering, Electrical and Electronics Engineering, Information Technology (180 students intake each), Mechanical and Automation Engineering, Mechanical Engineering, Computer Science & Technology, Information Technology & Engineering, Artificial Intelligence & Machine Learning (AI&ML) and Artificial Intelligence & Data Science (AI&DS) (60 students intake each), Bachelor of Business Administration-BBA 3 Year (60 students intake) and Postgraduate degree in Master of Business Administration (180 students intake). The Institute is approved by All India Council for Technical Education and affiliated to Guru Gobind Singh Indraprastha University, Delhi.

MAIT's campus comprises of 10 blocks including Admin Block with Wi-Fi connectivity, well equipped modern laboratories, an intellectually stocked Learning Resource Centre with books and E-Resources, Boys Hostel, Gym and Auditorium.

To build lasting relations with Industries, MAIT invites industries to join hands in fulfilling the social responsibility of imparting industry relevant technical education and training. Its alumni have also distinguished them-

selves through their achievements in and has been contributing significantly to industry, academics, research, business, government and social domains. The institute continues to work closely with the alumni to enhance its activities through interactions in academic and research programmes.

The overall environment in the institution is highly conducive for growth and provides a quality learning atmosphere for students that promotes culture, sports, societal contributions, art, self-governance and human values.

## **DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

The Department of Computer Science and Engineering at Maharaja Agrasen Institute of Technology, located at Sector 22, Rohini Delhi was established in year 1999. It was formed to provide an outstanding research environment complemented by excellence in teaching. The Department offers B.Tech. degree affiliated to Guru Gobind Singh Indraprastha University, Delhi. The CSE department at MAIT has a team of experienced and highly qualified faculty who are committed to providing quality education to the students. The Computer Science and Engineering department at Maharaja Agrasen Institute of Technology offers a comprehensive learning experience, combining theoretical knowledge with practical skills. It prepares students for a successful career in the field of computer science and equips them with the necessary skills to adapt to the evolving technology landscape. The curriculum is designed to meet the current industry demands and trends, and department offers specializations in following areas:

1. Artificial Intelligence
2. Artificial Intelligence and Machine Learning
3. Machine Learning and Data Analytics
4. Full Stack Development

Department works with the vision "To be centre of excellence in education, research and technology transfer in the field of computer engineering and promote entrepreneurship and ethical values".

# ABOUT THE PROGRAMME

The FDP will cover the following topics:

## **Introduction to Python Programming**

- Basics of Python Programming
- Hands on python tutorial and exercises
- Working examples and application on real world problems (Chat Application)

## **Introduction to Data Analytics and Data Visualization**

- Pre-Processing of Data
- Categorical variables into Quantitative variables
- Correlation
- Data Visualization in Python

## **Introduction to Machine Learning**

- Introduction to Machine Learning
- Implementation from Scratch
- Overfitting, Underfitting and Model Selection

## **Machine Learning for Classification**

- Introduction to Classification Problems
- Accuracy, Confusion Matrix, Precision, Recall, F1 Score.
- Introduction to Image Processing

## **Machine Learning**

- Machine Learning and the Bias Variance Trade-Off
- Different types of Ensemble Techniques
- Regularization to avoid Overfitting

# REGISTRATION & PAYMENT DETAILS

## Eligibility

The Programme will be conducted in both offline and online mode. Faculty members (regular/adhoc/temporary) from Computer Science and allied disciplines are eligible to apply. Participants will have the option to choose their mode of joining the programme.

## REGISTRATION DEADLINE: 06 August 2023

All those who meet the eligibility criterion are required to register and pay a Non-Refundable fee of **INR 950/-** by visiting [rcmoocs.in](http://rcmoocs.in)

### **Registration is mandatory.**

After successful registration & payment, the participants will receive a confirmation via email. Please keep checking the spam folder of the email as the bulk email sent may end up in the spam folder.

An official group has been made for communication with the participants on "Telegram." You are therefore requested to install the Telegram App either from the Play Store or App Store. The link to join the official group will be provided in the confirmation mail.

### **For those who wish to attend the programme offline may deposit INR 1950/- (Non-refundable) to the following account:**

Bank Name: UNION BANK OF INDIA

Bank Address: Sector 22, Rohini Branch, New Delhi-110086, India

Account Name: MAHARAJA AGRASEN INSTITUTE OF TECHNOLOGY

Account Number: 394502010059875

IFSC Code: UBIN0560421

Bank Swift Code: UBININBBSBD

AD Code: 0291679

## IMPORTANT

- Registration is mandatory for participation.
- Attempting and submitting all the quizzes and assignments is mandatory, and each participant should score atleast 50% aggregate to be eligible for the completion certificate.
- Graded certificates on the basis of performance will be awarded to the participants.
- As part of the Ministry of Education's requirement under the PMMMMNMTT scheme, all participants need to submit online feedback for each session.
- **No Objection Certificate (NOC) or Leave is NOT REQUIRED to participate in the Programme. However, participants are expected to inform their authorities about their participation.**
- Failing to meet any of the above conditions will result in the denial of completion certificate.

**For further information, write to us at:**  
[hybridedu@ramanujan.du.ac.in](mailto:hybridedu@ramanujan.du.ac.in)

**or contact us through WhatsApp:**

**+91 - 7011863335**

**+91 - 7011527088**



# ORGANISING BOARD OF THE PROGRAMME

## Chief Patron

Dr. Nand Kishore Garg (Founder and Chief Advisor, MATES)  
Sh. Vineet Kumar Lohia (Chairman, MATES)

## Executive Committee

Shri S P Aggarwal (IAS (Retd), (Executive Chairman, MATES)  
Er. T. R. Garg (General Secretary, MATES)  
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