



TEACHING LEARNING CENTRE
RAMANUJAN COLLEGE
(ACCREDITED GRADE 'A' BY NAAC)
UNIVERSITY OF DELHI

in collaboration with

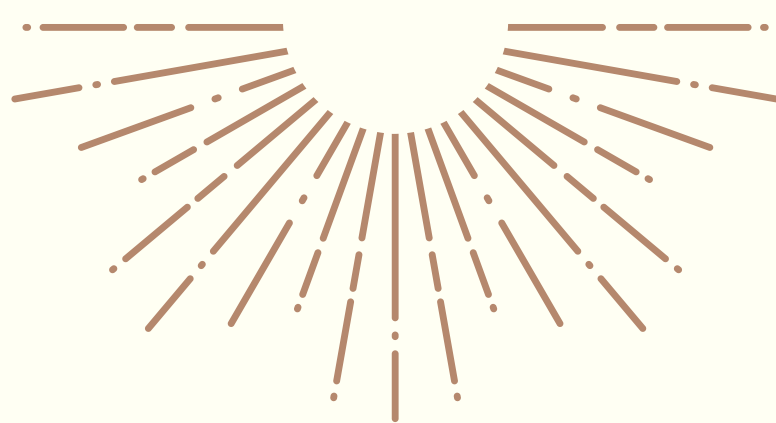
PG & RESEARCH DEPARTMENT OF MATHEMATICS
(Under DBT Star College Scheme)
JAMAL MOHAMED COLLEGE (Autonomous)
TIRUCHIRAPPALLI, TAMIL NADU

under the aegis of
PANDIT MADAN MOHAN MALAVIYA NATIONAL
MISSION ON TEACHERS AND TEACHING
Ministry of Education

are organizing

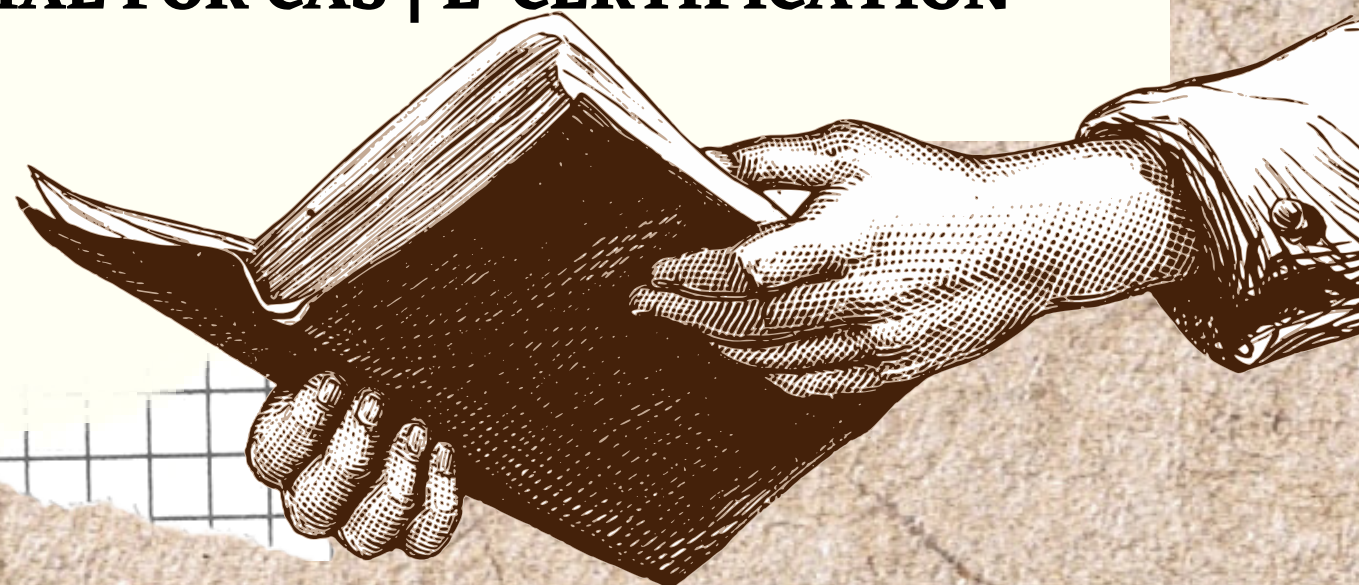
ONE WEEK FACULTY DEVELOPMENT PROGRAMME ON
DATA ANALYTICS & MATHEMATICAL
SOFTWARE TOOLS
FEBRUARY 25 – MARCH 03, 2022

FOR
REGISTRATION



VISIT
rcmoocs.in

SELF PACED | NO NOC REQUIRED | BENEFICIAL FOR CAS | E-CERTIFICATION



ABOUT RAMANUJAN COLLEGE

Ramanujan College is a constituent College of the University of Delhi (DU). It is inspired by the life and work of Srinivasa Aiyangar Ramanujan, one of the world's greatest Mathematicians. The College has been accredited Grade "A" by the National Assessment and Accreditation Council (NAAC) in its First Cycle. It is located in the well-known area of Kalkaji, near Nehru Place, in South Delhi.

The College was established in 1958 as an evening college for boys with just five programmes. Since 2010, Ramanujan College has been expanding and now at present offers sixteen undergraduate programmes in different disciplines. This achievement, in alignment to the recommendations of the National Education Policy (NEP) 2020, makes the College a centre for interdisciplinary studies and research with a future focus on blended learning. It has gradually grown into a self-sufficient and self-reliant institution owing to its academic vigour and intellectual capital.

Ramanujan College was awarded the Deen Dayal Upadhyay- Knowledge Acquisition and Upgradation of Skilled Human Abilities and Livelihood (DDU KAUSHAL) Kendra in 2016 by the UGC, under which two vocational courses were started in Banking Operations and Software Development.

The College has 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 Ministry of Education (MoE). This Course was uploaded on MoE's Massive Open Online Course (MOOC) platform SWAYAM and many participants registered for it.



Ramanujan College offers various short-term diploma, certificate, and executive development programmes on contemporary and skill-oriented themes. These are conceived and designed by faculty members in consultation with external experts.

The courses get exceptional response from the students and are conducted throughout the academic session. They are open to alumni and students of all the colleges. Some of these courses support the curriculum, some prepare the students for higher studies and also accelerate the professional growth.

The College is the Study Centre of School of Open Learning (SOL), Non-Collegiate Women Education Board (NCWEB) and Indira Gandhi National Open University (IGNOU) for various courses. As an initiative towards students and teachers exchange programmes, the College has 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.

The prestigious Teaching Learning Centre was awarded to Ramanujan College in 2017 by the Ministry of Education, under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMNMTT) scheme.

In pursuit of its vision: “Discover, Empower, Transform: Building A Better World”, Ramanujan College is today perceived as one of the best colleges in the country.

ABOUT 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 in-depth 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.

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.

Ramanujan College is a pioneer in offering offline/online courses for faculty members of higher education institutions and research scholars 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.

Enrichment Spectrum at the TLC, Ramanujan College

- Transforming teachers into knowledge-creators
- Emphasis on creating self-learning space for participants
- Interaction with eminent scholars and academicians
- Regular follow-up with the participants through Google Classroom/Telegram/ Discussion Forum
- Adaptation skills for the dynamic contemporary environment
- Augmentation of professional capabilities and research-based knowledge
- Inter and cross-disciplinary methodologies of study
- Co-creation and mutual contribution between participants and facilitators
- Formation of knowledge capital
- Online certificates using the Blockchain Technology to ensure authenticity and verifiability

For the notification regarding recognition of the programmes conducted by TLC Ramanujan College for Career Enhancement Scheme (CAS) and the sanctity of the online courses for CAS, visit the [link](#) .



TLC Programmes adhere to the MoE and UGC Four Quadrant Approach

ABOUT JAMAL MOHAMED COLLEGE

Jamal Mohamed College was founded in 1951, as an affiliated college to the University of Madras and then affiliated to Bharathidasan University, Tiruchirappalli, when it was formed in 1982. Jamal Mohamed College is situated in the central part of Tamil Nadu, Tiruchirappalli city. It was established as a religious minority institution with the primary objective of providing higher education to the downtrodden and socially backward section of the society in general and Muslim minority in particular. The college is administered by the Society of Jamal Mohamed College. It is established in a sprawling land area of 87 acres, as a religious minority institution. Hajee M. Jamal Mohamed Sahib and Janab N.M. Khajamian Rowther , of revered memory, were the founding fathers of this institution.

In the year 1957 the college got the single honor of being bracketed with the thirty best colleges in India when Dan forth Foundation of USA selected the college for the award of study fellowships in U.S.A. In 1963 the college was elevated to the status of a post-graduate college.

In the year 1972, the college was recognized by UGC New Delhi, for the purposes of Grants under section 2(F) and 12(B) of the University Grants Commission Act 1956. In 1977, on the recommendation of the University of Madras, the UGC recognized the college as one of the ten "Lead colleges" in the university area.

The College was accredited at Five Star Level by NAAC during 2002 and conferred with Autonomous Status by UGC, New Delhi and Bharathidasan University in 2004-2005. In January 2009, the College was accredited by NAAC with A-Grade (2nd Cycle) - CGPA 3.6 out of 4.0. Our College was bestowed with the unique honour of "CPE" status Phase-I and Phase-II by the University Grants Commission under the Scheme "Colleges with Potential for Excellence" in 2011 and 2016 respectively. We retained the 'A' Grade awarded by NAAC during the third cycle of accreditation in 2015.



The college has obtained the prestigious 65th rank among Top ranking institutions in NIRF Rankings - 2021. Department of Science and Technology (DST), Government of India has accorded FIST Scheme to the Departments of Zoology, Botany and Physics in 2004 and to the Department of Mathematics in 2008. Again DST FIST Scheme has been extended to the Departments of Mathematics, Physics, Botany, Zoology and Computer Science in 2019. Five Science Departments such as Mathematics, Physics, Chemistry, Botany and Zoology have been short-listed after a meritorious presentation, among many competing institutions and awarded the Star Status Scheme by the Department of Bio Technology (DBT) in 2020.

Over a period of 70 years the college was able to scale greater heights and raise to the present status as a multi-faculty institution with 25 UG and 21 PG courses. 18 departments of the college are functioning with the status of approved research centres. The college has a strength of around 12000 students. There are 145 Government Aided teaching faculty and 357 staff members are working under the self finance stream. The college celebrated its silver Jubilee in 1971, subsequently the Golden Jubilee and Diamond Jubilee in 2001 and 2011 respectively.

With many milestone achievements, the College has been marching towards fulfilling marvelous plans, matching the vision and mission of our noble founders and the present Management Committee Members. "The Jamal" journey continues with all gentle Jamalians for still more greater heights of glory in higher education.

ABOUT DEPARTMENT OF MATHEMATICS JAMAL MOHAMED COLLEGE

The Department of Mathematics of Jamal Mohamed College, was started as one of the earliest department in the year 1951. B.Sc., and M.Sc Mathematics programmes were started in 1957 and 1963 respectively. The Department was elevated into a research department in the year 2002 by offering M.Phil(FullTime & Part-Time) and Ph.D (Full-Time & Part-Time) programmes. B.Sc Mathematics (Self-Financing Section) was started for women in 2003. M.Sc Mathematics (Self-Financing Section) was started for women and men in 2005 and 2010 respectively. In the year 2008, the Department was identified for the award of FIST – Grant by the Ministry of Science and Technology of Government of India. The Department has highly qualified faculty members actively engaged in teaching, research, continuing education programmes and consultancy. In the last 13 years, the members of the Department have written 10 books, 91 research scholars were awarded Ph.D degrees, published more than 670 research papers in National and International journals and presented many research papers in National and International Conferences.

ABOUT THE FACULTY DEVELOPMENT PROGRAMME

This one week Online Faculty Development Programme on Data Analytics and Mathematical Software Tools will focus on software and programming languages which are useful in research and has its applications in diverse fields such as engineering, medicine, biology, physics, finance, computer science, business, and industry.

Data analysis tools are software and programs that collect and analyze/process data in order to improve processes, outcomes and help uncover insights to make data-driven decisions. Development of mathematical software tools has been one of the most important events in mathematics. Mathematical software systems are used to construct examples to verify the facts, to prove theorems, and to find new mathematical phenomena. In recent years, mathematical research often motivates developments of new algorithms and new systems, which in turn depends on mathematical software tools. Also, high-quality typesetting softwares like LaTeX includes features designed for the production of technical and scientific documentation involving mathematical symbols.

This programme will cover the following Data Analytics and Mathematical Software Tools :

- R | the programming language for exploratory data analysis
- Python | the programming language for machine learning
- Excel | use powerful data analysis formulas
- Matlab | programming and numeric computing platform
- Mathematica | symbolic mathematical computation program
- LaTeX | high-quality typesetting software
- Webtools | Mathematical tools from Internet

With this Faculty Development Programme to be held in an Online Mode, we hope to stimulate research and foster new exciting interdisciplinary collaborations between researchers with different background and expertise in Mathematics.

ELIGIBILITY

The Faculty Development Programme is open to Faculty members (regular/ad-hoc/temporary/Contractual/Guests) from any University/College, registered M.Phil./Ph. D. research scholars and interested Post Graduate Students in the disciplines of Mathematics, Statistics, Computer Science, Physical Sciences and its allied fields.

REGISTRATION PROCESS

- Registration Fee : **INR 950/- (Non-Refundable)**
- Last Date for Registration : **24 February 2022**
- All those who meet the eligibility criterion are required to register and pay registration fee of INR 950/- by visiting rcmoocs.in
- 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.**

IMPORTANT

- The Faculty Development Programme begins on 25th February 2022. The detailed day-wise Programme schedule will be communicated only to the registered participants before the start of Faculty Development Programme.
- The sessions on various themes of the Faculty Development Programme will be conducted either live or through pre-recorded videos via. Ramanujan College Web portal.
- As this Faculty Development Programme is being organized under the prestigious PMMMNMTT scheme of the Ministry of Education, we at TLC, Ramanujan College, give prime importance to willing and serious participants who are eager to learn.
- Attempting and submitting all the quizzes and assignments are mandatory to avail of the programme completion certificate. The average score of all the quizzes must be at least 40%. Graded certificates on the basis of performance will be awarded to the participants.
- As a part of the Ministry of Education's requirement under the PMMMNMTT scheme, all participants need to submit online feedback for each session.
- Failing to meet any of the above conditions will result in denial of a certificate of completion to the participants.

**No Objection Certificate (NOC) or Leave is NOT REQUIRED
to participate in the Programme**

**For further queries, please mail us at:
mathrefresher@ramanujan.du.ac.in**

ORGANIZING BOARD OF THE FACULTY DEVELOPMENT PROGRAMME

PATRONS

PROF. S. P. AGGARWAL
PRINCIPAL
RAMANUJAN COLLEGE

PROF. S. ISMAIL MOHIDEEN
PRINCIPAL
JAMAL MOHAMED COLLEGE

CONVENORS

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DEPARTMENT OF MATHEMATICS
RAMANUJAN COLLEGE

DR. R. JAHIR HUSSAIN
PG & RESEARCH DEPARTMENT OF
MATHEMATICS
JAMAL MOHAMED COLLEGE

CO-CONVENOR

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DEPARTMENT OF MATHEMATICS
RAMANUJAN COLLEGE

TECHNICAL TEAM

DR. NIKHIL RAJPUT
DEPT. OF COMPUTER SCIENCE
RAMANUJAN COLLEGE

MR. VIPIN RATHI
DEPT. OF COMPUTER SCIENCE
RAMANUJAN COLLEGE

ORGANIZING MEMBERS FROM PG & RESEARCH DEPARTMENT OF MATHEMATICS JAMAL MOHAMED COLLEGE

DR. A. NAGOORGANI, ASSOCIATE PROFESSOR
DR. A. MOHAMED ISMAYIL, ASSOCIATE PROFESSOR
MR. S. MASOOTHU, ASSOCIATE PROFESSOR
DR. M. MOHAMMED JABARULLA, ASSISTANT PROFESSOR
DR. A. PRASANNA, ASSISTANT PROFESSOR

TEACHING LEARNING CENTRE, RAMANUJAN COLLEGE

DIRECTOR

DR. S. P. AGGARWAL (PRINCIPAL)

DEPUTY DIRECTOR

DR. NIKHIL RAJPUT

Department of Computer Science

ASSISTANT DIRECTORS

DR. SUMIT NAGPAL

Department of Mathematics

DR. APARAJITA MAZUMDAR

Department of Political Science

TLC STAFF

Mr. Akhil, Mr. Anil, Mr. Prashant, Mr. Sanchit and Mr. Vinod

Ramanujan College

(Accredited Grade 'A' by NAAC)

University of Delhi

H Block, Kalkaji, New Delhi - 110019

Website: <http://www.ramanujancollege.ac.in>,
<https://rcmoocs.in/>

Jamal Mohamed College (Autonomous)

College with Potential for Excellence

Accredited (3rd Cycle) with 'A' Grade by NAAC

DBT Star College Scheme & DST-FIST Funded

NIRF 2021 RANK 65 IN COLLEGES CATEGORY

(Affiliated to Bharathidasan University)

Tiruchirappalli, Tamil Nadu-620 020

Website: <https://www.jmc.edu>