

REFRESHER COURSE IN MATHEMATICS

THEME: PYTHON & VEDIC MATHEMATICS

13-26 JULY 2023

ORGANIZED BY

**TEACHING LEARNING CENTRE &
DEPARTMENT OF MATHEMATICS**

RAMANUJAN COLLEGE

NAAC A++ ACCREDITED

UNIVERSITY OF DELHI

in collaboration with

JSS MAHAVIDYAPEETHA

JSS SCIENCE AND TECHNOLOGY

UNIVERSITY

**SRI JAYACHAMARAJENDRA COLLEGE OF
ENGINEERING**

JSS TECHNICAL INSTITUTIONS CAMPUS, MYSURU - 570-006

(ON THE EVE OF DIAMOND JUBILEE CELEBRATIONS OF SJCE, MYSURU)

Under the aegis of

PANDIT MADAN MOHAN MALAVIYA NATIONAL

MISSION ON TEACHERS AND TEACHING

Ministry of Education

SELF PACED

**NO NOC
REQUIRED**

**BENEFICIAL
FOR CAS**

**E-
CERTIFICATION**

FOR REGISTRATION

VISIT: rcmoocs.in

OR
SCAN



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++" with CGPA 3.71 by the National Assessment and Accreditation Council (NAAC) in its Second Cycle. The college 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 (PMMMNMTT) 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 DEPARTMENT OF MATHEMATICS RAMANUJAN COLLEGE

The Department of Mathematics, Ramanujan College is well known for its dedication towards excellence in teaching and research. Named after the great Indian Mathematician Srinivasa Ramanujan, the Department upholds his spirit of Mathematical Excellence and Innovation.

The department offers undergraduate programme in Mathematics, providing students with a comprehensive understanding of various branches of mathematics, including algebra, analysis, geometry, number theory, and statistics.

The faculty members of the Department of Mathematics at Ramanujan College are highly qualified and experienced professionals who are committed to imparting quality education and nurturing the intellectual growth of their students. They are actively engaged in research activities, contributing to the advancement of mathematical knowledge and its applications.

The department encourages a vibrant academic environment, fostering collaboration, discussion, and critical thinking among students. It organizes seminars, workshops, and guest lectures by renowned mathematicians and researchers to expose students to cutting-edge developments in the field of mathematics.

Apart from the regular academic programs, the department actively engages in community outreach initiatives, promoting the importance of mathematics and its relevance in everyday life. It encourages students to participate in mathematical competitions, conferences, and research projects to enhance their skills and broaden their horizons.

The Department of Mathematics, Ramanujan College is equipped with modern facilities, including well-equipped classrooms, a dedicated library, and computer laboratories with specialized mathematical software. These resources enable students to apply theoretical concepts to practical problem-solving scenarios and explore mathematical concepts through computational methods.

Overall, the Department of Mathematics provides a stimulating learning environment for students interested in pursuing a career in mathematics. It nurtures their passion for the subject and equips them with the necessary skills and knowledge to excel in academia, research, and various professional fields where mathematics plays a vital role.

ABOUT JSS SCIENCE AND TECHNOLOGY UNIVERSITY

JSS STU is a renowned private university in Mysuru administered by JSS Mahavidyapeetha, which is passionately committed for providing education in Science, Technology, Engineering, Management & Humanities. This university is built upon a strong reputation of Sri Jayachamarajendra College of Engineering (SJCE), which is one among the premier institutions in India, established in 1963, with a sprawling 102 acres campus equipped with state-of-the-art facilities, JSS Science and Technology University envisions to create a world class learning environment and a desired student centric eco-system and transform into a futuristic global university. It offers various undergraduate, postgraduate, and Ph.D. programs with multiple specializations under every discipline. The University is accredited by the All India Council for Technical Education (AICTE) and UGC.

ABOUT SRI JAYACHAMARAJENDRA COLLEGE OF ENGINEERING

Sri Jayachamarajendra College of Engineering (SJCE), conceived in 1963, is the dream child of Jagadguru Dr. Sri Shivarathri Rajendra Mahaswamigalavaru, the 23rd pontiff of Sri Suttur Mutt. It comes under the aegis of JSSMVP. As one of the leading institutes in India, SJCE has been recognized under the TEQIP and also accredited by National Board of Accreditation (NBA). The Institution also has the reputation of academic excellence in professionally oriented programs and equal proficiency in extracurricular activities, which makes it a lucrative option for students from all over the country. SJCE has entered the 60th year of its inception. To celebrate its 60th anniversary, the SJCE, Mysuru is celebrating Diamond Jubilee with year-long celebrations from June 2022 to June 2023.

ABOUT DEPARTMENT OF MATHEMATICS

The Department of Mathematics of JSS Science and Technology University, Mysuru has established in the year 1963 in Sri Jayachamarajendra College of Engineering, Mysuru. The department initially catered to the needs of the UG and PG Engineering Mathematics and subsequently, in 2019-20, introduced the PG programme in Mathematics, namely, the M.Sc.(Mathematics). The department of Mathematics has 13 distinguished and committed faculty members with research interests in diverse areas of Mathematics. Seven faculties are with Ph.D. degree. Our faculty members are actively engaged in diverse fields of mathematical research in pure and applied, namely, Number Theory, Complex Analysis-Univalent function theory, Discrete Mathematics, Algebraic Graph Theory, Differential Geometry and Real Functions. Faculty together possess more than 200 publications in diverse international and national Scopus/Web of science indexed journals. The senior faculty are serving as reviewers and editorial board members in several prestigious national & international journals. Many faculties have collaboration with other reputed institute faculties in India and abroad.

ABOUT THE REFRESHER COURSE

This two week Online Refresher Course in Mathematics will focus on Vedic Mathematics and Python, an exciting opportunity to delve into the profound wisdom of ancient Indian mathematics and combine it with the power of modern programming. This unique programme aims to introduce participants to the rich heritage of Vedic Mathematics and also to demonstrate the effectiveness and versatility of programming language Python. Prepare to unlock new perspectives on mathematical calculations, problem-solving techniques, and computational efficiency.

Objectives:

1. Familiarize participants with the principles and techniques of Vedic Mathematics.
2. Demonstrate the application of Vedic Mathematics in solving mathematical problems.
3. Introduce participants to Python programming fundamentals.
4. Empower participants with the ability to leverage Vedic Mathematics and Python for increased computational speed and efficiency.

This Refresher Course on Vedic Mathematics and Python offers a unique opportunity to merge ancient wisdom with modern technology. By mastering the principles of Vedic Mathematics and implementing them using the powerful programming language Python, participants can enhance their problem-solving skills and computational efficiency. Join us on this transformative journey as we explore the synergy between the age-old techniques of Vedic Mathematics and the flexibility of Python programming. Get ready to unlock a world of possibilities in mathematics and computation!

ELIGIBILITY

The Refresher Course is open to Faculty members (regular/ adhoc/ temporary/ Contractual/ Guests) from any University/ College, registered M.Phil./ Ph.D. research scholars and interested Post Graduate Students in the disciplines of Mathematics, Physics, Chemistry, Statistics, Computer Science, Engineering streams and the allied fields.

REGISTRATION PROCESS

- Registration Fee : INR 1450/- (Non-Refundable)
- Last Date for Registration : 13 July 2023
- All those who meet the eligibility criterion are required to register and pay registration fee of INR 1450/- 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 Refresher Course begins on 13th July 2023. The detailed day-wise Programme schedule will be communicated only to the registered participants before the start of Refresher Course.
- The sessions on various themes of the Refresher Course will be conducted either live or through pre-recorded videos via. Ramanujan College Web portal.
- As this Refresher Course 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**

Note : The participants who want relieving letter from Ramanujan College after successfully attending the course need to take leave from their college and submit an NOC. Link for submission of NOC will be shared during the programme.

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

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