





#### TEACHING LEARNING CENTRE

Ramanujan College

(Accredited Grade 'A++' by NAAC)

University of Delhi

in collaboration with

### RAM LAL ANAND COLLEGE University of Delhi

under the aegis of

# PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING MINISTRY OF EDUCATION

is organising an

Online One-week Faculty Development Programme

## DATA ANALYSIS USING R

12 - 18 December 2022



#### 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. Besides this, 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 and skill-oriented themes to complement the regular graduation courses. It is also 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.

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



# 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.

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

#### RAM LAL ANAND COLLEGE

Making a steadfast beginning with the objective of disseminating knowledge, Ram Lal Anand College, is on the cusp of transforming itself into an institute of academic excellence, against the backdrop of its completing more than half a decade of fruitful legacy since its inception in 1964. A legacy, where it has steadfastly remained committed to its vision and mission aimed at inculcating critical thinking among teachers and students, nurturing talent, keeping young minds ignited and more importantly developing future leaders of tomorrow. The college set in the midst of plush green environs of south campus of Delhi University, provides the right kind of ambience and impetus for educational growth. The college which is a wholly owned subsidiary of the University of Delhi, has all the necessary infrastructure, office equipment, IT systems with latest technologies in place and most importantly, an extensive and committed support of a very strong, diverse and experienced faculty, competent to undertake programs tailor-made to meet both the aspirational and academic needs of the students and faculty.

The college boasts of a vast campus, spread over ten acres of land with green lawns and elegant buildings of much sprawling architectural merit. The college is Wi-Fi enabled with excellent infrastructure, state of the art Laboratories, Seminar Room, Amphitheatre, Library, Playground and Cafeteria.

It is a multi-disciplinary, co-educational institution with more than 2500 students pursuing different programs in Humanities, Commerce, Management and Sciences.

The College is administered by a statutory Governing Body as per the University Ordinances and legislated by the Executive Council of the University of Delhi.

The college is aggressively working towards strengthening its educational framework by implementing best practices. The objective is to build an accessible and inclusive environment for teaching and learning. Inclusive environment primarily becomes a driver for providing a better quality of education for all students. It is also instrumental in removing discriminatory biases, attitudes and mindsets, thereby helping students in forging strong ties with world outside their families and enabling the formation of long-term social relationship.

The road ahead is beset with both exciting opportunities and challenges with college fully geared up in setting newer benchmarks and reaching commanding heights of excellence.



#### **CONCEPT NOTE**

Data analysis is one of the most crucial steps in doing research. The tools and methods used are significant not only in finding stochastic relationships in mathematical format, but also helps in explaining the relationships among variables. These procedures are used to explain and predict the levels of variables in interest as well as to test hypotheses about their relationships, and the results are often used as evidence in a wide range of policy settings. One of the applications used for this purpose is R.

R is a free and open-source software used by researchers and practitioners in various disciplines for computing and quantitative analysis of complex data structures. Using this as a reference point, the present Faculty Development Programme attempts to introduce the participants with the application of modern statistical tools and techniques using R to the problems arising in their research projects. The course will be useful for improving quantitative skills of teaching faculty and research scholars in both sciences and social sciences. It will also equip the participants across disciplines to work in a new environment by providing them with knowledge about the tools, methods, and theoretical issues, applicable to pragmatic and humanstic questions.

#### **THEMATICS**

- Introduction to Quantitative Research Methods
- Fundamental and Advanced Functions of R
- Developing an understanding about Descriptive Statistics
- Inferential Statistics for Parametric comparison of means (t-tests, ANOVA) and co-relational regression
- Non parametric statistical analysis

#### REGISTRATION AND PAYMENT PROCESS

#### **ELIGIBILTY**

Faculty members (regular/adhoc/temporary) in teaching profession, research scholars and postgraduate students are eligible to apply for this programme.

All those who meet the eligibility criterion are required to register and pay a Non-Refundable fee of INR 950/- by visiting

#### remooes.in

#### **REGISTRATION DEADLINE: 11 December 2022**

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." The link to join the official group will be provided in the confirmation mail.

#### **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 PMMMNMTT 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
- Failing to meet any of the above conditions will result in the denial of completion certificate.

For further information, write to us at:

or contact us through WhatsApp:

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#### ORGANISING BOARD OF THE PROGRAMME

#### DIRECTOR

Teaching Learning Centre, Ramanujan College

Prof. S.P. Aggarwal

Principal

#### PRINCIPAL. RAM LAL ANAND COLLEGE

Prof. Rakesh Kumar Gupta

PRORGRAMME COORDINATOR, RAM LAL ANAND COLLEGE

Dr. Seema Joshi

**ORGANISING TEAM** 

Ramanujan College

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