National Institute of Technology Raipur

Department of Mathematics & Continuing Education Cell (CEC)

One-Week National Level Short-Term Training Programme (STTP) in Online Mode

on

"Modern computational Tools for Number Theory, Linear Algebra and Mathematical Modelling (MCTNLM-2026)"

November 16-20, 2026

About Course

Objectives of Programme: The STTP "MCTNLM-2026" aims to develop computational skills using SageMath, Mathematica, Python, and MATLAB; apply computational methods to Number Theory, Linear Algebra, and Mathematical Modelling; provide hands-on training in symbolic computation, numerical analysis, simulation, and data visualization; and enhance participants' research, problem-solving skills.

About CEC

Continuing Education Cell (CEC) , NIT Raipur aims to update skills, broaden knowledge, enhance qualifications, foster personal growth, and promote National and International technological advancement through training and expertise.

About NIT Raipur

National Institute of Technology Raipur (An Autonomous institute of National Importance) fully funded by the Govt. of India. NIT Raipur is located in Raipur, the Capital City of Chhattisgarh State and spread over an area of approx. 100 acres. NIT Raipur is ranked 70th in engineering category in India by the NIRF, and it is the highest ranked engineering college in Chhattisgarh. Presently NIT Raipur offers 12 undergraduate, 14 Postgraduate (including M.Sc., M.C.A and M.Tech. in Applied Geology) and 18 Ph.D. programs. The institute offers facilities for research and also undertakes R & D activities, provides testing, consultancy and other extension services including continuing education to the industry through the Industry Institute Interaction cell and the placement of the student through the Department of Training & Placement. More details about NIT Raipur are at: **http://www.nitrr.ac.in.**

About Department

The **Department of Mathematics** came in existence since 1956. The department provides an outstanding research environment and offers academic program leading to the award of PG/Ph.D. degree. Apart from this, department taking care of Mathematical input to all undergraduate and postgraduate courses in Engineering and Computer Science Applications

Eligibility for Participation

Participation is open to faculty, research scholars, UG/PG students of Science and Engineering, and professionals from R&D, industry, or academia seeking foundational knowledge in relevant mathematical, scientific, or engineering concepts.

For Registration

For More Details Click

https://www.nitrr.ac.in/conference.php

Scan QR for More Details

Course Outline

- **Number Theory:** Divisibility, congruences, prime testing, integer factorization, Diophantine equations, arithmetic functions, partition theory, q-series, modular arithmetic, and computational aspects of modular forms using SageMath and Python.
- **Linear Algebra:** Matrix operations, eigenvalue problems, diagonalization, singular value decomposition (SVD), least-squares problems, numerical methods for solving large-scale linear systems, and applications to control theory using computational tools.
- **Mathematical Modeling:** Formulation of mathematical models for real-world problems, model development, parameter estimation, numerical simulation, computational experimentation, data visualization, and interpretation of results using modern computational tools.

Features of Course

The course features expert lectures on Number Theory, Linear Algebra, and Mathematical Modelling, along with hands-on training using SageMath, Mathematica, Python, and MATLAB. It emphasizes the practical implementation of mathematical algorithms, numerical methods, computational experiments, simulation, and data visualization. The programme also promotes research-oriented problem-solving, interdisciplinary applications, and the effective use of modern computational tools in research.

Important Dates

Registration Last Date:	**10th November 2026**
List of shortlisted Candidates:	**14th November 2026**
Course Start Date:	**16th November 2026**
Course End Date:	**20th November 2026**

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Chief Patron

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Speakers

Subject experts from reputed institutes, universities, research organizations, and industries.

Account Details

Account No.	:	**38027633250**
Name	:	**Director, NIT Raipur**
Bank Name	:	**State Bank of India**
Bank Branch	:	**NIT Branch**
IFSC Code	:	**SBIN0002852**
MICR Code	:	492002004
Swift Code	:	SBININBB646
PAN Card Number	:	AAAJN0643G
GSTIN Number	:	22AAAJN0643G1ZN

OR

Scan the QR Code for fee payment

Note: Applicants must upload the proof of fee payment via Google Form. Please note that the registration fee is non-refundable.

Fee Details

Category	Fee (Rupees)
NITRR Students	(₹ 500 + 18% GST) = ₹ 590 /-
External Students/ NITRR Staff	(₹ 750 + 18% GST) = ₹ 885 /-
Industry Delegates/Faculty	(₹ 1500 + 18% GST) = ₹ 1770 /-

Registration Process

The payment must be done through ONLINE mode in the given account details. After payment, partici-pant is required to fill the following Google form:

Click Google Form: https://forms.gle/j78fZcZpRwCxqgVo7

Or
Scan Google Form