National Institute of Technology Raipur

Department of Mathematics, Computer Science and Engineering (CSE) & Continuing Education Cell (CEC)

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

"Numerical Methods and Scientific Computation with Python and Maxima: Theory and Practice"
(NMSCPM-2026)

October 12-16, 2026

About Course

NMPM-2026 introduces Python and Maxima for scientific computing, covering basic programming concepts, vector and array manipulation, plotting, functions, and input/output. The course includes linear algebra, numerical methods, symbolic computation using SymPy and Maxima, and applications in engineering and science. The course also introduces selected topics in machine learning and artificial neural networks as applications of linear algebra, numerical optimization, curve fitting, and numerical computation. Through theory and hands-on sessions, participants will develop computational skills for solving mathematical, scientific, engineering, and data-driven real-world problems.

About CEC

Continuing Education Cell (CEC), NIT Raipur aims to update skills, broaden knowledge, enhance qualifications, foster personal growth, and promote National and International techno- logical 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 under graduate, 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 at https://www.nitrr.ac.in.

About Departments

The Department of Mathematics came into existence in 1956. The department provides an outstanding research environment and offers academic programs 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.

The Department of Computer Science and Engineering was established in the year 2000. The department offers undergraduate, postgraduate and Ph.D. programmes. It has experienced faculty members, good laboratory facilities and a supportive learning environment. The department focuses on quality teaching, practical knowledge, research and skill development to prepare students for careers in industry, higher studies and research.

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, engineering concepts and AI.

Important Dates

Registration Last Date:	**10th October 2026**
List of shortlisted Candidates:	**11th October 2026**
Course Start Date:	**12th October 2026**
Course End Date:	**16th October 2026**

Course Outlines

Introduction to Python and Maxima; Basic programming concepts; input and output; Vector and array manipulation; Functions; Plotting; Numerical methods, including root-finding problems, system of linear equations, interpolation, curve fitting, numerical differentiation and integration, and ordinary differential equations; symbolic computation using SymPy and Maxima; Applications of Python and Maxima in Engineering and Science; Bayesian Inferences; Introduction to Machine Learning (ML) through regression, classification, curve fitting, and optimization; Basic concepts of Artificial Neural Networks (ANN), including perceptron, activation functions, loss functions, gradient descent, and simple feed-forward neural networks; Hands-on implementation of selected scientific computing and machine learning problems using Python.

For Registration

For More Details Click https://www.nitrr.ac.in/conference.php

Scan QR for More Details

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Chief Patron

Prof. N. V. Ramana Rao, Director, NITRR

Patron

Dr. Subhojit Ghosh, Chairman, NITRR (CEC)

Chairman

Dr. S. K. Samanta, HOD(Maths), NITRR

Dr. Dilip Singh Sisodia, HOD(CSE), NITRR

Co-ordinators & Contacts

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Speakers

Subject experts of the course are from renowned institutes (IITs, NITs, IISERs, etc.) 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 No	:	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)
UG/PG Students of NIT Raipur	₹ 500 + 18% GST = ₹ 590 /-
UG/PG Students from other Institute and PhD Students	₹ 750 + 18% GST = ₹ 885 /-
Faculty	₹1200 + 18% GST= ₹1416/-
Industry Delegates	₹ 1500 + 18% GST= ₹ 1770 /-

Registration Process

The payment must be made through the online mode in the given account details. After payment, the participant is required to fill the following Google form:

Click Google form: https://forms.gle/stgxgmz9LNQrDdLm7

Or,
Scan Google form