

About Course

Objectives of Training Programme: The “MCACICP-2027” workshop aims to equip participants with mathematical and computational tools for modern cybersecurity. It connects theory with practical applications in cryptography, image security, cloud security, and post-quantum computing. The programme focuses on hands-on learning, computational techniques, and real-world cybersecurity applications. It prepares participants to develop secure solutions and address emerging challenges in the evolving digital and quantum era.

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.nitr.ac.in>.

About Departments

The **Department of Mathematics**, NIT Raipur, offers PG/Ph.D. programmes and provides mathematical support to Engineering and Computer Science programmes. The **Department of Computer Science & Engineering**, NIT Raipur focuses on quality education, research, innovation, and emerging technologies in computer science.

Eligibility for Participation

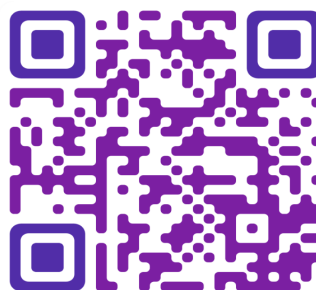
Participation is Open to faculty, research scholars, UG/PG students, academicians, scientists, engineers, and industry/R&D professionals from Mathematics, Computer Science, IT, Engineering, Cybersecurity, ECE, and allied disciplines.

For Registration

For More Details Click

<https://www.nitr.ac.in/conference.php>

Scan QR for More Details



Course Outline

- **Mathematical Foundations of Cryptography:** Groups, subgroups, cyclic groups, rings, ideals, integral domain, fields, finite field, polynomial arithmetic, and applications in cryptographic systems. Congruences, residue classes, modular operations, polynomial operations, and their cryptographic applications.
- **Cryptographic Techniques:** Symmetric and asymmetric encryption, RSA, Diffie-Hellman, ECC, cryptographic hash functions, digital signatures, authentication, and secure communication protocols.
- **Image and Cloud Security:** Image scrambling, permutation and diffusion techniques, chaotic maps, secure image encryption, cloud authentication, privacy protection, and cryptographic protocols for secure cloud environments.
- **Quantum & Practical Cryptography:** quantum computing, quantum threats to RSA and ECC, quantum key distribution, lattice-based cryptography, quantum-resistant algorithms, post-quantum cryptographic approaches, emerging security techniques, and Python-based cryptographic implementation.

Features of Course

The course integrates mathematics, cryptography, image and cloud security, and quantum computing with computational tools. It emphasizes hands-on learning, Python implementation, practical applications, and emerging cybersecurity technologies. It also provides exposure to real-world security challenges and research trends.

Important Dates

Registration Last Date:	20 th December 2026
List of shortlisted Candidates:	30 th December 2026
Course Start Date:	4 th January 2027
Course End Date:	9 th January 2027



Chief Patron

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

Patron

Dr. Subhojit Ghosh, Chairman (CEC), NITRR

Chairman(s)

**Prof. Dilip Singh Sisodia, HOD (CSE), NITRR
&
Dr. S. K. Samanta, HOD (Maths), NITRR**

Co-ordinators

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Speakers

Subject experts of the course may be from renowned institutes 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, participant is required to fill the following Google form:**

Click Google Form: <https://forms.gle/2girSrHU1C1uhnAY6>

Or
Scan Google Form

