WORKSHOP ON CRYPTOLOGY (NIWC 2025)

24-27 November 2025







INDIAN INSTITUTE OF **INFORMATION TECHNOLOGY DESIGN AND MANUFACTURING** KURNOOL CRYPTOLOGY RESEARCH **SOCIETY OF INDIA**

ABOUT THE INSTITUTE

IIITDM Kurnool, established in 2015 by the Ministry of Education, Government of India, is an Institute of National Importance. It offers B.Tech., M.Tech., and Ph.D. programs emphasizing design, innovation, and interdisciplinary learning. The Institute fosters creativity, industry collaboration, and research to develop skilled technologists with strong problem - solving and human-centered design capabilities.

ABOUT THE DEPARTMENT

The Department of Computer Science and Engineering at IIITDM Kurnool offers B.Tech on CSE and AI&DS, M.Tech on CSE, AI&DS, CSE with Cyber Security. programs, and PhD. programs focusing on AI, Cybersecurity, IoT, Data science. It promotes research, innovation, and industry collaboration through modern labs and projects, preparing students for impactful careers in technology and advanced research.

ABOUT CRSI

The Cryptology Research Society of India (CRSI), established in 2001, promotes research and development in cryptology and data security. It brings together academicians, researchers, and professionals through conferences, workshops, and seminars. CRSI supports knowledge sharing, collaboration, and innovation in cybersecurity, organizing flagship events like INDOCRYPT, the National Workshop on Cryptology (NWC) and the National Instructional Workshop on Cryptology (NIWC) across India.

ABOUT THE WORKSHOP

Cryptology (mathematical techniques related to information aspects security cryptanalysis) is developing rapidly and its popularity is increasing daily in information sciences, particularly in network, banking, mail, and information security-related activities. CRSI organizes this workshop annually, in collaboration with an Indian institution, to reach students nationwide and provide them with a platform to explore opportunities in Cryptology and related fields of study and research. This workshop aims to systematically expose the students and faculty of Mathematics & Engineering, as well as industry executives, to the basic understanding of Cryptology, postquantum cryptography, and other advanced protocols and its applications. In particular, we will be covering lattice-based, code-based and hash-based, multivariate-based Cryptography and Threshold Cryptography. Participants will benefit by understanding the basics of mathematical hard problems and designing cryptographic primitives with security relying on hard problems.

ELIGIBILITY

Students, Faculty Members, and Industry Professionals are eligible to participate.

Participants with a background in Mathematics, Computer Science, Cryptology, Information Security or any relevant stream will find the workshop especially beneficial.

ADVISORY COMMITTEE

- Padma Shri Prof. R Balasubramanian,
 Former IMSc Director
- Padma Shri Prof. Bimal Kumar Roy,
 Former ISI Director
- Prof. C.E. Veni Madhavan, Rtd. Prof IISc
- Prof. C Pandu Rangan, IISc Bangalore
- Dr. Indivar Gupta, Centre Director, NTRO

ORGANIZING COMMITTEE

- Prof. K Sathya Babu, ASD Academics
- Dr. N. Srinivas Naik, HoD-CSE
- Dr. Mohamed Asan Basiri M
- Dr. K. Nagaraju
- Dr. Anil Kumar R
- Dr. Ravinder Katta
- Dr. Shounak Chakraborty
- Dr. K E Srinivasa Desikan
- Dr. Harsha V
- Dr. Rohit Kumar Das

STUDENT COMMITTEE

- Dr. D. Jamunarani
- Dr. Medini H R
- Mrs. Bharathi Sadhu
- Mr. Nagu Vadlana
- Ms. Pyla Lova
- Mr. R. Fedal Castro
- Mr. S. T. Madhana Prakasam
- Ms. Kolipakam Sriya
- Mr. Pavan Dinesh
- Ms. Akanksha Londhe
- Mrs. G. Lakshmi Priya

LIST OF SPEAKERS

- Prof. C Pandu Rangan, IISc Bangalore
- Prof. Mridul Nandi, ISI Kolkata
- Prof. Goutam Paul, ISI Kolkata
- Dr. Mahabir Prasad Jhanwar, Ashoka University
- Dr. Abhay Kumar Singh, IIT (ISM)
 Dhanbad
- Dr. Somindu C Ramanna, IIT Kharagpur
- Dr. Avik Chakraborti, TCG CREST
- Dr. Tapas Pandit, Plaksha University
- Dr. V. Natarajan, SETS Chennai
- Dr. Y. Sreenivasa Rao, NIT Warangal
- Dr. Rajendra Kumar, IIT Delhi
- Dr. Aishwarya T, IIT Madras
- Dr. Appala Naidu T, CRRao AIMSCS
- Dr. Sabyasachi Karati, ISI Kolkata
- Dr. Vikas Srivastava, NIT Warangal
- Mr. Harshdeep Singh, SAG DRDO

REGISTRATION

- Registration is Free of cost
- For Registration : <u>Link</u>
- Last Date of Registration: 17-11-2025
- Accommodation will be available at the venue
- Note: Limited seats available.



TOPICS TO BE COVERED

- Post-Quantum Cryptography
 - Lattice-based Cryptography
 - Code-based Cryptography
 - Hash-based Cryptography
 - Multivariate Cryptography
- Threshold Cryptography
- Authentication Encryption
- Functional Encryption
- Symmetric Key Cryptography
- Quantum Cryptography

CONTACT DETAILS

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