

## Course Relevance

Cyber safety and security are paramount in today's interconnected digital landscape. They encompass measures and practices that safeguard individuals, organizations, and systems from cyber threats and vulnerabilities. As our reliance on technology grows, so do the risks posed by cyberattacks, including data breaches, identity theft, and ransomware.

To enhance cyber safety and security, individuals should adopt strong password practices, enable two-factor authentication, and exercise caution when clicking on links or downloading files from unknown sources. Regular software updates and patches are crucial to fix vulnerabilities that hackers might exploit. Organizations must implement robust firewalls, intrusion detection systems, and encryption protocols to fortify their digital infrastructure.

Furthermore, awareness and education are key components of cyber safety. Promoting a culture of vigilance helps individuals and organizations recognize and respond to phishing attempts, social engineering, and other deceptive tactics used by cybercriminals. Collaboration between governments, private sectors, and cybersecurity experts is essential to establish global standards and policies that address emerging threats.

In essence, cyber safety and security are ongoing efforts that require proactive measures, continuous learning, and the collective commitment of all stakeholders to create a resilient and secure digital environment.

## Course Objectives

The course will present the fundamentals and the research aspects of Cyber Safety and Security. By empowering school students with the knowledge and skills to navigate the digital world safely, "Cyber Safety and Security" aims to create a society that is more resilient against cyber threats, promotes responsible digital behavior, and contributes to a secure online environment for all.



## Topics to be Covered

- Introduction to Cybersecurity
- Symmetric and Public Key Cryptography
- Wireless Network Security
- Intrusion Detection System
- Cloud Security and Malware Analysis
- Virus, Worm, Trojan, Rootkit Creation Detection & Analysis
- Bio-metric Security, Incident Response and Digital Forensics
- Ethical Hacking and Responsible Social Media Usage
- 5G Technology



## Keynote Speakers

- Dr Debabrata Nayak, Head of Cyber Security Ericsson PhD in Cybersecurity from IIT Bombay
- Mr. Rakshit Tandon, Cyber Security Expert & Consultant- Internet and Mobile Association of India
- Dr. B. Acharya, Associate professor and Head of CCC, NIT Raipur
- Prof. Ashok Kumar Turuk, NIT Rourkela
- Dr. Sanjay Kumar, Associate Professor & Head of Department, NIT Raipur
- Prof. Bibhudutta Sahoo, NIT Rourkela
- Prof. Sourav Kanti Addya, Assistant Professor, NITK, Surathkal, India
- Dr. Susmita Mondal, Assistant Professor, IDRBT
- Prof. Sambit Bakshi, NIT Rourkela
- Dr. Rakesh Tripathi, Associate Professor, NIT Raipur
- Mr. Debabrata Rout, Cloud Security



## A Short-Term Course on Cyber Safety and Security

**Hybrid Mode  
(Online and Offline)**  
06th - 10th October 2023

### Coordinators:

**Dr. Ramesh Kumar Mohapatra  
Dr. Sujata Mohanty**

**DEPARTMENT OF COMPUTER SCIENCE &  
ENGINEERING,  
NATIONAL INSTITUTE OF TECHNOLOGY  
ROURKELA**



## About NIT Rourkela



National Institute of Technology (NIT) Rourkela is an institution of national importance funded by the Ministry of Education. NIT Rourkela was established as Regional Engineering College (REC) on August 15, 1961. NIT Rourkela was ranked 601-800 in the world by the Times Higher Education World University Rankings of 2018 and 126th in Asia. In India, it was ranked 16 among engineering colleges by the National Institutional Ranking Framework (NIRF) in 2023. For details about the institute please visit us at [www.nitrkl.ac.in](http://www.nitrkl.ac.in).

## Tourist Places Nearby



Khandadhar Waterfall



Pitamahal Dam



Hanuman Vatika



Vedvyas Temple



Mandira Dam

## About Department of Computer Science and Engineering

The department was established with the vision to prepare its students for professional employment and graduate education through study and implementation of the fundamental principles of theory, abstraction, and software design, while at the same time presenting the ethical and social issues associated with computer science.

The department offers various UG and PG programmes with the mission to provide high-quality education that prepares the graduates for success in their professional practice and advanced studies. The department also offers M. Tech in Computer Science, Information Security, and Software Engineering; and Ph. D. for regular as well as sponsored candidates. Please visit <https://website.nitrkl.ac.in/CS/> to know more about the department of CSE.

### Important Dates

Registration Deadline	<del>2nd October 2023</del> 4th October 2023
Confirmation to participants by email	4th October 2023
Commencement of Course	06th October 2023

### Coordinators:

**Prof. Ramesh Kumar Mohapatra**  
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## Target Participants

The short-term course is of immense interest for UG/ PG students, research scholars/professionals, staff/ faculty members and industry professionals working in the area of Intelligent Transportation Systems for Smart Cities. The participants having Computer Science and Engineering, Electronics and Communication Engineering, and Electrical Engineering background will be benefitted with this short-term course.

### Registration Details

- The registration fee (GST 18% inclusive) for various participants for attending the short-term course is given below:
- The students/faculty members of NIT Rourkela are exempted from the payment of registration fee.

### Registration Details (Fees Non-Refundable)

Registration Type	Fees
Students	INR 500
Faculty Members	INR 1000
Scientist from R & D Organization/Industry Persons	INR 2000

### Bank Account Details for Registration

Account Name	CONTINUING EDUCATION NIT ROURKELA
Account No.	10138951784
Bank	State Bank of India
Branch	NIT Campus Rourkela (02109)
IFS Code	SBIN0002109

### Registration Form:

To complete online registration, the participants need to fill the following google form:

<https://shorturl.at/uBGMO>

E-certificates will be provided to the registered participants upon successfully completing the course.

Contact and Queries: Please send your queries directly to the course coordinators.