5-Day Training Programme on

APPLIED CYBER SECURITY

January 29 - February 2, 2024

Organized by

School of Electrical Sciences
Indian Institute of Technology Bhubaneswar

Airport Authority of India

About the Campus:

IIT Bhubaneswar strives to offer the best engineering education with unmatched novelties in curriculum. Within a short span of incipience, IIT BBS has made rapid strides towards becoming one of the elite technological institutes of India spurred by sustained creation of knowledge and innovation, through high quality R&D activities and commitment to holistic education as students get exposed to a wide variety of activities through societies and clubs, involving liberal arts, design, dramatics, robotics, music, dance and sports, instilling them with social awareness, a spirit of innovation, entrepreneurship and thirst of discovery. All academic activities of the Institute are being carried out in the campus at Argul, spreading over 936 acres of land of serene and pollution-free academic environment, in the state of Odisha, India. It is located on the feet of the historic and magnificent Barunei Hills.

About the Department:

The School of Electrical Sciences at IIT Bhubaneswar offers a vibrant and research-intensive environment in the field of Computer Science & Engineering, Electronics & Communication Engineering, and Electrical Engineering. Established in 2008, it is one of the fastest growing Schools at IIT Bhubaneswar. The details of faculties are available in the relevant web page.

Important Contacts

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Coordinator:
Dr. Padmalochan Bera

Venue: School of Electrical Sciences

Day-01: 29th January 2024

9:30-10:00	Inauguration Programme
10:00-10:30	Tea Break
10:30-11:30	Introduction to Cyber Physical Systems and Security
11:30-12:00	Tea Break
12:00-13:30	Network and Information Security Principles
13:30-14:30	Lunch Break
14:30-16:00	Access Control and Firewall Systems
16:00-16:15	Tea Break
16:15-17:45	Laboratory Session on Network Security and Access Control

Day 2: 30th January 2024

9:30-11:00	Introduction to Artificial Intelligence
11:00-11:30	Tea Break
11:30-13:00	Intelligent Network Intrusion Detection System
13:00-14:00	Lunch Break
14:00-16:00	Network and Video Surveillance
16:00-16:15	Tea Break
16:15-17:45	Cryptography and Applications

Day 3: 31th January 2024

Time	Session
9:30-11:00	Blockchain and Its Applications in Access Management
11:00-12:00	Security Issues in Wireless Sensor Networks (WSNs) and CPS
12:00-12:30	Tea Break
12:30-13:30	Securing CPS – Trust, Belief Models and UEBA
13:30-14:30	Lunch Break
14:30-16:00	Authentication in Internet-of-Things (IoT)
16:15-17:45	Laboratory Session on AI and Surveillance System

Day 4: 1th February 2024

Time	Session
9:30-11:00	Security Challenges in CPS – Case Study: Smart Grid Energy Management Systems (EMS)
11:30-12:00	Tea Break
12:00-13:00	Attack Graph and Game Theory for Risk and Attack Surface Analysis
13:00-14:00	Lunch Break
14:00-16:00	Formal Verification in Cyber Security Automation and Forensics, Cyber Security Standards
16:15-17:45	Security Challenges in Cloud Computing

Day 5: 2nd February 2024

9:00-10:30	Embedded Systems, Modelling and Verification: Automotive and Aviation
10:30-11:30	Software Testing & Verification
11:30-12:00	Tea Break
12:00-13:00	Formal Runtime Monitoring for safety and security of CPS
13:00-14:00	Lunch Break
14:00-15:30	Security Orchestration, Automation and Response (SOAR)
15:30-15:45	Tea Break
15:45-17:45	Valedictory and Discussion