REPORT

6-Day Online

Faculty Development Programme

on

Smart Computing and Its Applications in Cyber Defense & Digital Forensic

under

AICTE Training and Learning (ATAL) Academy

December 16-21, 2024

Application No. :1730480971

FDP Thrust Area: Advanced Computing (Supercomputing, AI, Quantum Computing)

Organized by

Department of Computer Science & Engineering

Jalpaiguri Government Engineering College

ATAL Online FDP on Smart Computing and Its Applications in Cyber Defense & Digital Forensic, December 16-21, 2024 at Jalpaiguri Government Engineering College

Overview

The Department of Computer Science and Engineering, Jalpaiguri Government Engineering College, West Bengal, organized an online 6-day AICTE-sponsored faculty development programme from 16th to 21st December 2024 under the AICTE Training and Learning (ATAL) Academy on Smart Computing and its Applications in Cyber Defense and Digital Forensic, in which around 200+ participants from different parts of the country participated.

A total of 13 esteemed speakers from industry and academia participated in the 6-day online FDP to share their knowledge on smart computing and its applications in cyber defense and digital forensics. There were six resource persons from academia, seven from industry, and out of them, three speakers from outside the country.

Dr. Gaurang Panchal, Sr. Technical Lead, Emerson Innovation Centre, Pune, India

Dr. Gaurang Panchal is a Sr. Technical Lead at Emerson Innovation Centre, Pune, IN. Dr. Gaurang is responsible for ensure that the products and solutions security in-terms of secure coding (SAST) and complete architecture review including Threat and Risk Analysis, Maturity Assessment. Dr. Gaurang is also responsible for development of AI based security control implementation. He hold Ph.D in Computer Science and Engineering from Indian Institute of Technology Kharagpur (IIT Kharagpur). During his Ph.D, he contributed various cryptographic protocols for key management for data storage security.

Mr. Samit Majumdar, J. P. Morgan & Chase, Dallas, Texas, USA

Mr. Majumdar is a technology leader with versatility in delivering leading edge technology solutions across diverse lines of businesses. He is known for aligning technology with business strategies emphasizing stronger customer relationships and excel at identifying and developing technological solutions to complex business challenges. Mr.Majumdar takes pride in building technology teams and enabling them to leverage their unique strengths in delivering results.He stands out in IT architecture, design, operations, support, team building, data-center management and budget development. Over twenty years of strong experience in IT Infrastructure providing a wide range of architectural design and solutions.

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Dr. Saibal Kumar Pal, Senior Scientist, DRDO, India

Saibal K. Pal is a Senior Scientist at Scientific Analysis Group, Defence Research & Development Organization (DRDO), Delhi. He has served as former Director of Information Technology and Cyber Security in the Ministry last year. He received his PhD in Computer Science from University of Delhi and is an Invited Faculty & Research Guide at a number of national institutions. He has more than 2 decades of experience of working in public sector and has closely worked on the policy formulation and implementation for various types of communities in India. His areas of interest are E-Governance, Information & Network Security, Computational Intelligence and Information Systems. He has more than 200 publications in books, journals & international conference proceedings.

Dr. Sangram Roy, Associate Professor, NIT Sikkim, India

Dr. Sangram Ray is an Associate Professor in the Department of Computer Science and Engineering, National Institute of Technology Sikkim, India. He has more than fifteen years of teaching and research experience, and more than ten years of administrative experience in various capacities He has obtained M.Tech. and Ph.D. from Indian Institute of Technology (Indian School of Mines) Dhanbad, India. His research area includes Cryptography and Information Security, Elliptic Curve Cryptography, Content Centric Network, Internet-of-Things, Cyber Security, Blockchain Technology, etc. He has published more than fifty research papers in SCI-indexed international journals, conference of repute, book chapters, etc.

Dr. Mou Dasgupta, Associate Professor, NIT Raipur, India

Dr. Mou Dasgupta is an Associate Professor in the Department of Computer Application, National Institute of Technology Raipur, India. She has more than 13 years of teaching and research experience. She has obtained her Ph.D. from Indian Institute of Technology (Indian School of Mines) Dhanbad, India. Her research area includes Cryptography and Information Security, Elliptic Curve Cryptography, Blockchain Technology, Internet-of-Things, Underwater Wireless Sensor Network, Vehicular Adhoc Network etc.

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Mr. Kaushik Haldar, Head Education, WEBEL, India

Kausik Halder holds Project Management, Cyber Security, Cyber Law, DataPrivacy, GRC, Cyber Crime Investigation and Digital Forensic certificates. He completed the National Cyber Security Scholarship Program by ISAC-MDI Gurgaon and is a member of the prestigious National Security Database of ISAC. Along with his teaching career he also spearheaded digital transformation of different e-Governance eco-system over the last twenty five years. During his current tenure in the WEBEL, he served the corporation having been posted at various verticals and played a major role in recognition of WEBEL by Cert-In, Govt. of India.

Dr. Rajesh P Barnwal, CISO, CMERI, Durgapur, India

Dr. Rajesh P. Barnwal is serving as a Principal Scientist of CSIR-India and is currently heading the Information Technology Department and AI & IoT Lab of CSIR-Central Mechanical Engineering Research Institute, Durgapur. He has more than 16 years of professional R&D experience in the field of Computer Science and allied disciplines.

Recently, he has been awarded the prestigious INSA Visiting Scientist Fellowship for the year 2022-23 for his research in the domain of Adversarial Deep Learning. His current areas of research include Intelligent Machines, Internet of Things, Cloud Computing, and Cyber-Physical Systems.

Dr. Arijit Karati, Senior Member, IEEE, NSYSU, Taiwan

Dr.Karati received a Ph.D. degree from the Indian Institute of Technology Dhanbad, India in 2018. Dr. Karati is a Senior Member of IEEE and a Professional Memberof ACM. Currently, he is an Editorial Board member of Security and Communication Network, Cloud Computing and Data Science, Universal Wiser Publisher - Singapore, and Mathematics and Computer Science, Science Publishing Group. His research interests include applied cryptography, cybersecurity, network/communication protection, automotive security, decentralized data privacy.

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Dr. Debashish Kundu, Siemens Technology, Bengaluru, India

As a Technology Expert at Siemens Technology and Services, Dr. Denashish Kundu applies his deep knowledge acquired through Ph.D. in Software Engineering and 10+ years of industrial experience to design and implement innovative solutions for complex problems. He works with a multidisciplinary team of researchers and developers to leverage cutting-edge technologies to deliver high-quality products and services to our clients.

Dr. Ruhul Amin, IIIT Naya Raipur, India

Ruhul Amin received doctoral (Ph.D.) degree in Computer Science and Engineering from the Indian Institute of Technology(ISM) Dhanbad, Jharkhand, India, in 2017. He has authored many technical research papers published in leading international conferences and peer reviewed international journals from the IEEE, Elsevier, Springer, John Wiley, etc. He is also serving as Associate Editor of "Security and Privacy Journal" published by John Wiley. He has been included in the subject-wise ranking of top 2% scientists from India (all fields) in the area of Networking & Telecommunications. His research interest includes Cryptography and Network Security, IoT Security and blockchain technology.

Dr. Uttam Ghosh, Meharry Medical College, USA

Dr. Uttam Ghosh is an associate professor of cybersecurity in the School of Applied Computational Sciences at Meharry Medical College, where he joined in January 2022. Prior to this, he was an assistant professor in the Department of Computer Science at Vanderbilt University. Dr. Ghosh earned his Ph.D. in ECE from IIT kharagpur, India. He also has post-doctoral experience from the University of Illinois at Urbana-Champaign, Fordham University, and Tennessee State University. His research interests include cybersecurity, 5G networks, software-defined networking (SDN), Internet of Things (IoT), cloud computing, and machine learning.

Mr. Parichay Bhattacharjee, Senior Manager, SAIL, Bokaro, India

Mr. Parichay Bhattacharjee is a Senior Manager at SAIL Bokaro Steel Plant, where he oversees the state-of-the-art Hot Dip Galvanizing Line (0.38 MTPA). He has received several prestigious awards, including the CII ER Productivity Awards 2023-24 and the Odisha State Productivity Awards 2023-24 (Platinum Category). Mr. Bhattacharjee was honored as the IEI (JSC) Young Engineer of the Year 2024 and has also won the SAIL Chairman's Trophy for Young Managers in 2015-16, with a 1st Runner-Up finish in 2014-15.

Mr. Sayantan Dutta, HSBC, Kolkata, India

Mr. Sayantan Dutta is a lead Assistant Vice President at IGRC, AI and Analytics, HSBC. With a background from Calcutta University in Accounting and Finance, enhancedby a CMA from the Institute of Cost Accountants of India, his expertise in financial statement analysis and preparation has been honed at HSBC as a Fund Administrator. During his tenure, his team delved into the intricacies of financial statements, ensuring accuracy and compliance. His core competencies lie in meticulous financial accounting and analysis, serving as the foundation for strategic financial management.

ATAL Online FDP on Smart Computing and Its Applications in Cyber Defense & Digital Forensic, December 16-21, 2024 at Jalpaiguri Government Engineering College

Program Schedule

Day	Session			
Day 1 16/12/2024	6:00 PM to 6:30 PM Inauguration	6:30 PM- 8:00 PM Topic: **Cybersecurity: Current Trends and Industry Demand** Dr. Gaurang Panchal Sr. Technical Lead Emerson Innovation Centre, Pune, INDIA Years of Exp: 15 Years	8:00 PM- 9:30 PM Topic: **Machine Learning Demystified** Speaker: Mr. Samit Majumdar, Executive Director, Head of Cloud Solutions Enablement – Generative AI on Azure J P Morgan Chase & Co., Dallas, Texas, USA Years of Exp: 27 Years	
Day 2 17/12/2024	6:00 PM to 7:30 PM Topic: **Machine Learning Techniques: The Potent Tools Against Cybercrime in Digital India** Dr. Saibal Kumar Pal Senior Scientist (G); SAG, DRDO, Delhi, India Years of Exp: 30 Years	7:30 PM- 9:00 PM Topic: **Latest Security Challenges and Solutions in IoT Networks** Dr. Sangram Ray, Associate Professor, National Institute of Technology, Sikkim Years of Exp: 15 Years		
Day 3 18/12/2024	6:00 PM to 7:30 PM Topic: **Security and Privacy Issues in the Healthcare Sector** Dr. Mou Dasgupta, Associate Professor, NIT Raipur, C.G Years of Exp: 13 Years	7:30 PM- 9:00 PM Topic: **AI in Cyber Security: Strengthening Cyber Resilience** Mr. Kausik Halder Head Education, Information Security & Emerging Technology WEBEL, India Years of Exp: 26 Years		
Day 4 19/12/2024	6:00 PM to 7:30 PM Topic: GenAI-generated malware and its role in cyber defense Dr. Debasish Kundu Technology Expert Siemens Technology Bangalore, India Years of Exp: 15 Years	7:30 PM- 9:00 PM Topic: Analyzing Emerging Security Threats and Strategic Countermeasures in Cybersecurity Dr. Ruhul Amin Assistant Professor IIIT Naya Raipur, C.G Years of Exp:12 Years		
Day 5 20/12/2024	6:00 PM to 7:30 PM Topic: AI for Smart Cyber Defense Dr. Rajesh P. Barnwal Principal Scientist & Head; Information Technology Group, CSIR-CMERI, Durgapur, India Years of Exp: 15 Years	7:30 PM- 9:00 PM Topic: Security landscape of vehicular communications Dr. Arijit Karati, Assistant Professor, National Sun Yat-Sen University, Taiwan Years of Exp: 10+ Years		
Day 6 21/12/2024	2:00 PM- 3:30 PM Topic: **AI Adoption and Cybersecurity Concerns for Manufacturing Industry** Mr. Parichay Bhattacharjee Senior Manager SAIL, Bokaro Steel Plant Years of Exp: 12 Years	3:30 PM- 5:00 PM Topic: **Online Hate Speech Detection on Code-mixed Hindi-English text and Hindi text in Devanagari** Dr. Utsab Ghosh, Associate Professor, Meharry Medical College, USA Years of Exp: 12 Years	5:00 PM- 6:20 PM Topic: **Application of Machine Learning and Natural Language Processing for Financial Fraud detection** Mr. Sayantan Dutta Lead Assistant Vice President IGRC, AI & Analytics division, HSBC, Years of Exp: 14 Years	6:30PM to 7:30PM **Online test & feedback** 7:30PM to 8:00PM **Valedictory Session**

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Inauguration of the FDP with watering plant and lamp lightening programs

Group photo after Inaugurations

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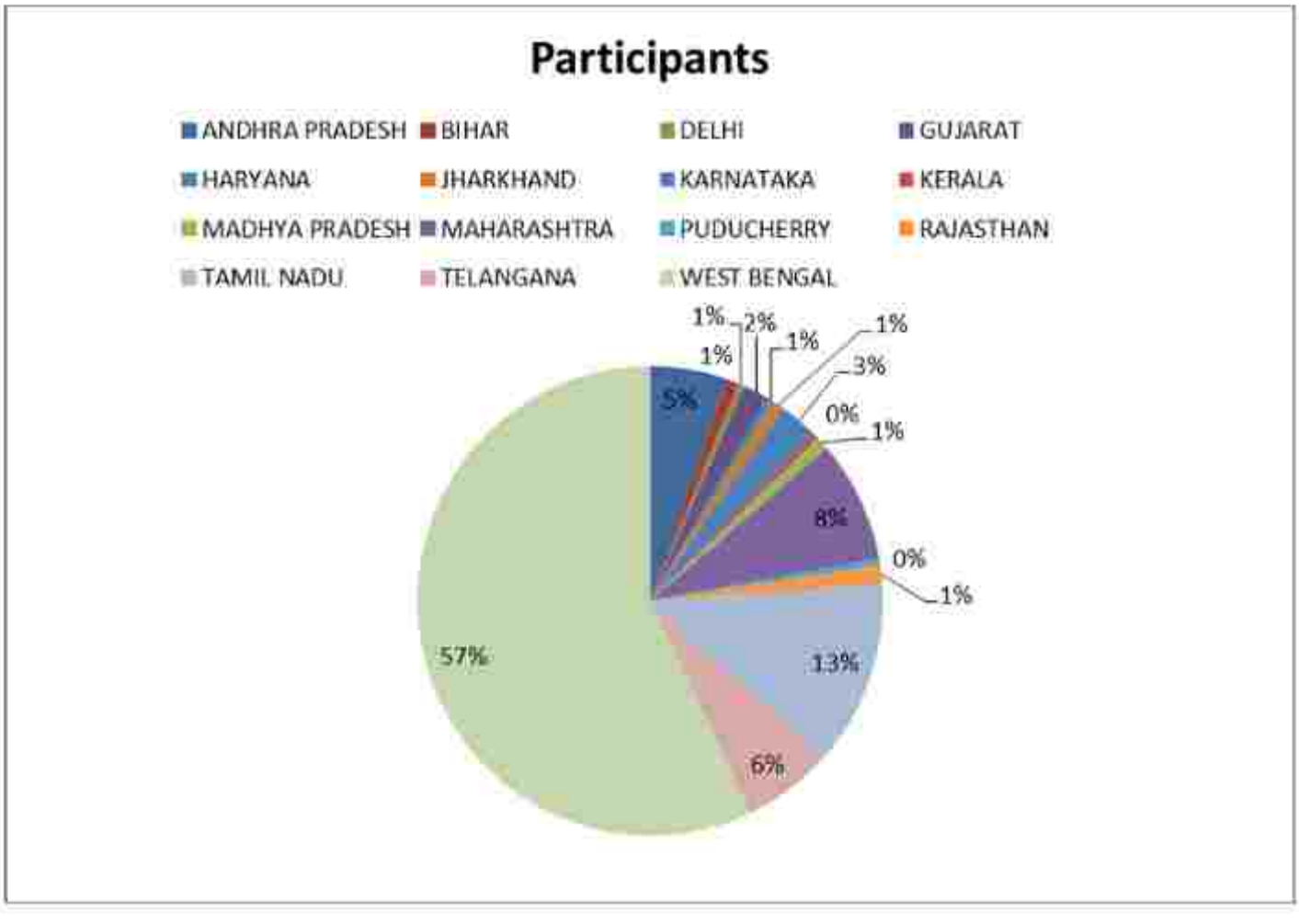
Speech by the Chief Guest, Mr. K. G. Mandal, Assistant Vice President, Coca-Cola Raninagar, Siliguri, West Bengal

In-house participants attending online sessions

Participants

In this online faculty development program, faculty members, research scholars, industry professionals and M.Tech. students were enrolled. A total of 226 participants from 85 colleges and universities across 62 districts in 15 states of our country participated in the program.



State-wise participants distribution

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DAY 1: Session 1

Topic: Cybersecurity: Current Trends and Industry Demand by Dr. Gaurang Panchal, Sr. Technical Lead, Emerson Innovation Centre, Pune, INDIA

DAY 1: Session 2

Topic: Machine Learning Demystified, Speaker: Mr. Samit Majumdar, Executive Director, Head of Cloud Solutions Enablement – Generative AI on Azure J P Morgan Chase & Co., Dallas, Texas, USA

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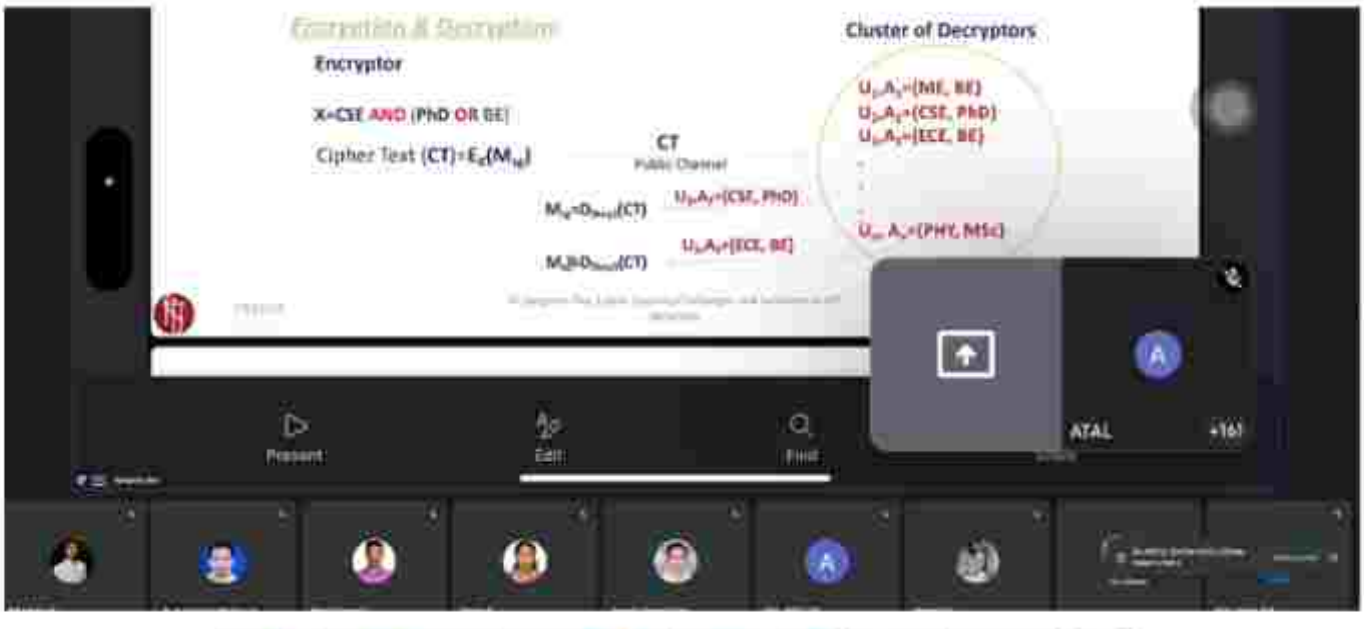
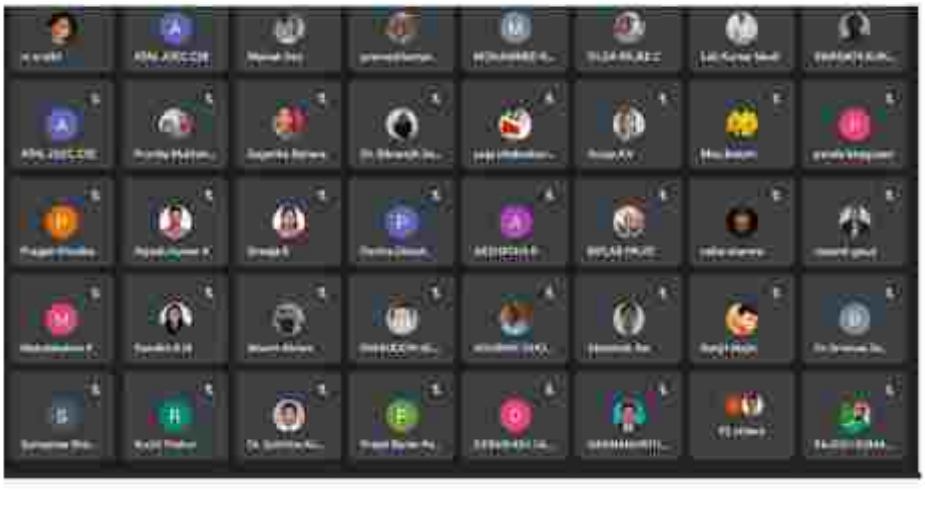
DAY 2: Session 3

DAY 2: Session 4

Topic: Latest Security Challenges and Solutions in IoT Networks
Dr. Sangram Ray, Associate Professor, National Institute of Technology, Sikkim





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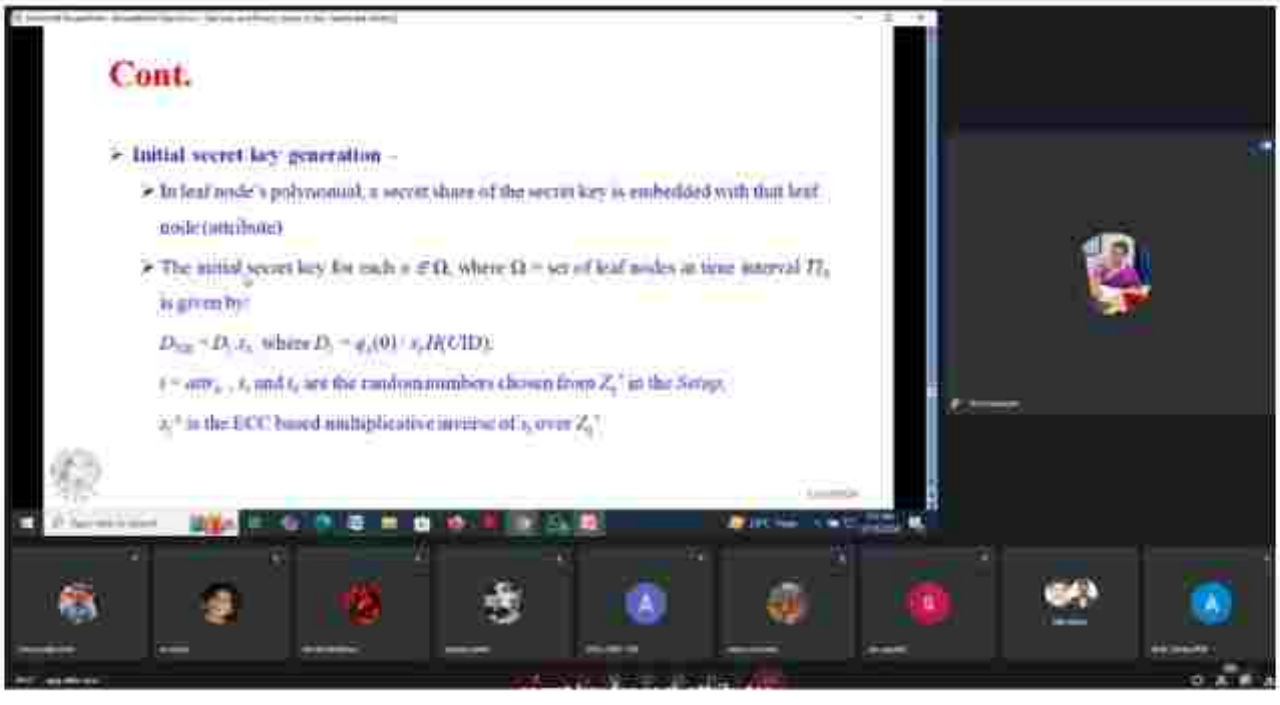
DAY 3: Session 5

Topic: Security and Privacy Issues in the Healthcare Sector

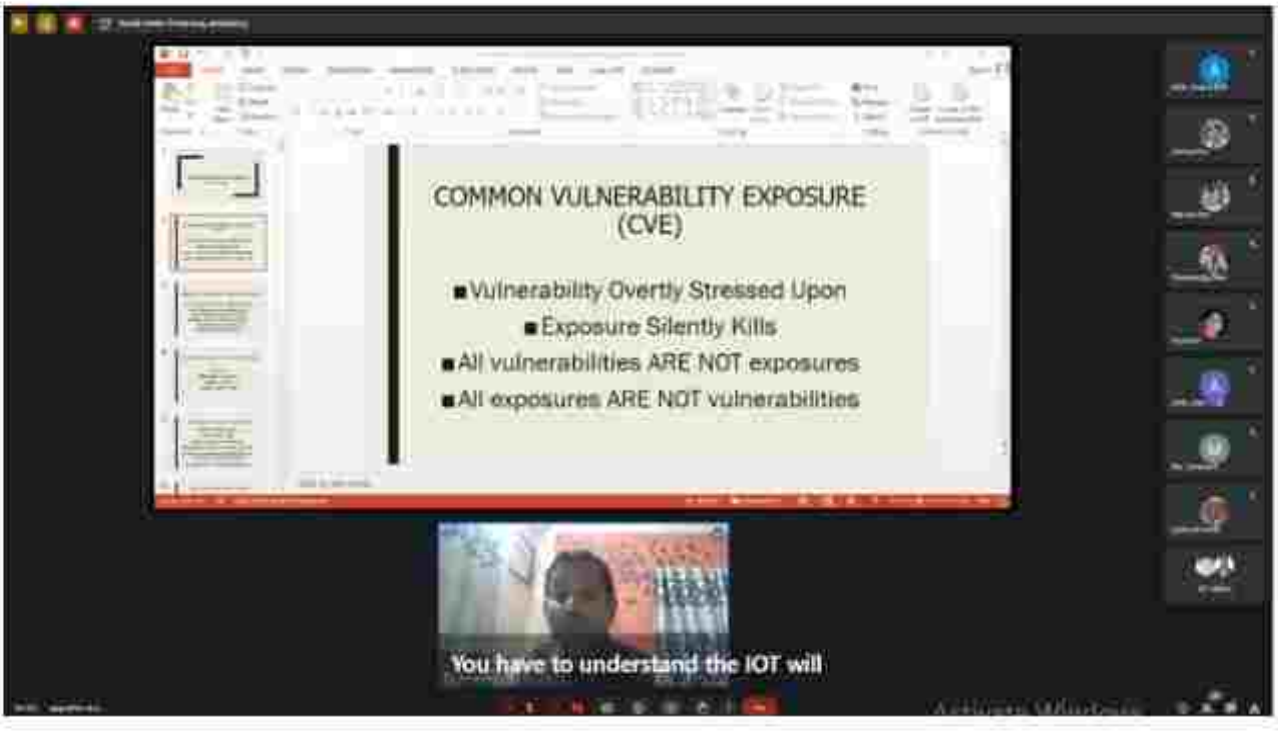
Dr. Mou Dasgupta, Associate Professor, NIT Raipur, C.G.



DAY 3: Session 6

Topic: AI in Cyber Security: Strengthening Cyber Resilience

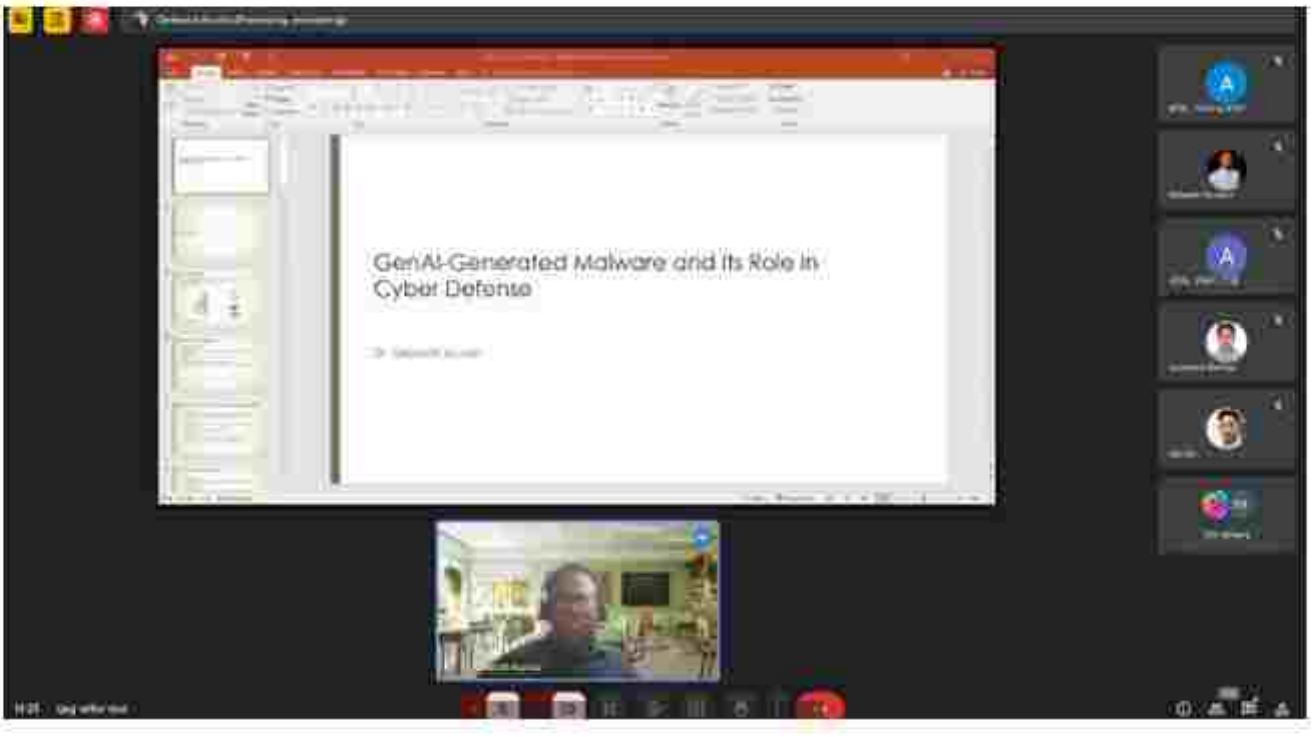
Mr. Kausik Halder, Head Education, Information Security & Emerging Technology WEBEL, India



DAY 4: Session 7

Topic: GenAI-generated malware and its role in cyber defense

Dr. Debasish Kundu, Technology Expert, Siemens Technology, Bangalore, India



DAY 4: Session 8

Topic: Analyzing Emerging Security Threats and Strategic Countermeasures in Cybersecurity

Dr. Ruhul Amin, Assistant Professor, IIIT Naya Raipur, C.G.

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DAY 5: Session 9

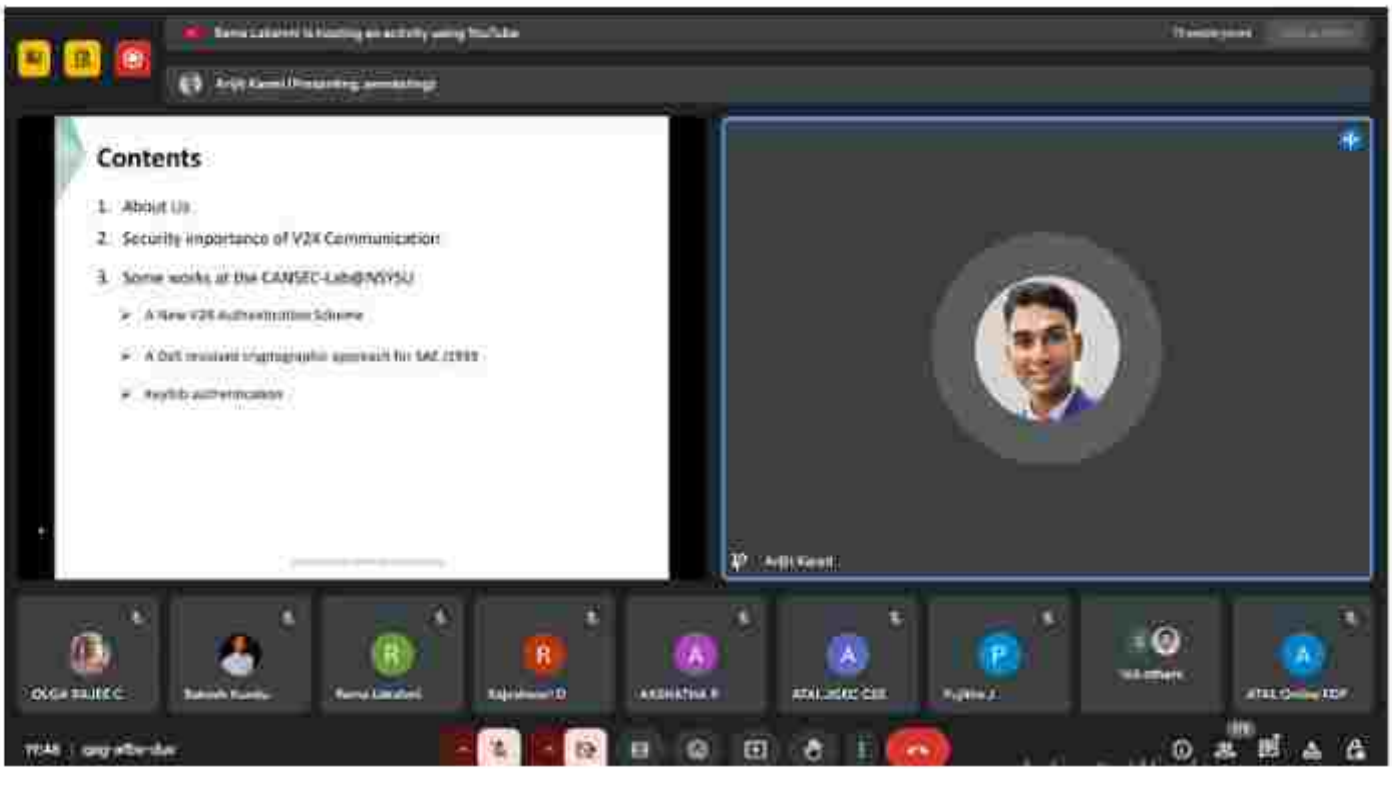
Topic: AI for Smart Cyber Defense

Dr. Rajesh P. Barnwal, Principal Scientist & Head,
Information Technology Group, CSIR-CMERI, Durgapur, India

DAY 5: Session 10

Topic: Security landscape of vehicular communications

Dr. Arijit Karati, Assistant Professor, National Sun Yat-Sen University, Taiwan



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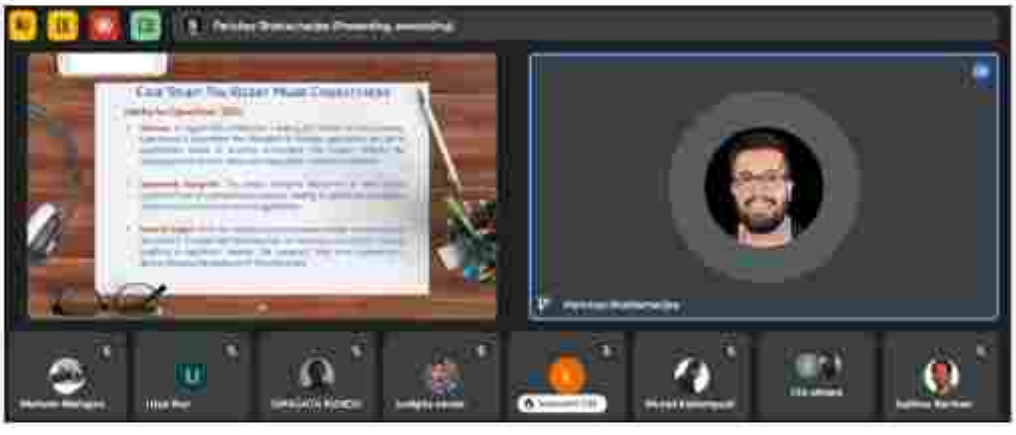


DAY 6: Session 11

Topic: AI Adoption and Cybersecurity Concerns for Manufacturing Industry
by
Mr. Parichay Bhattacharjee
Senior Manager, SAIL, Bokaro Steel Plant

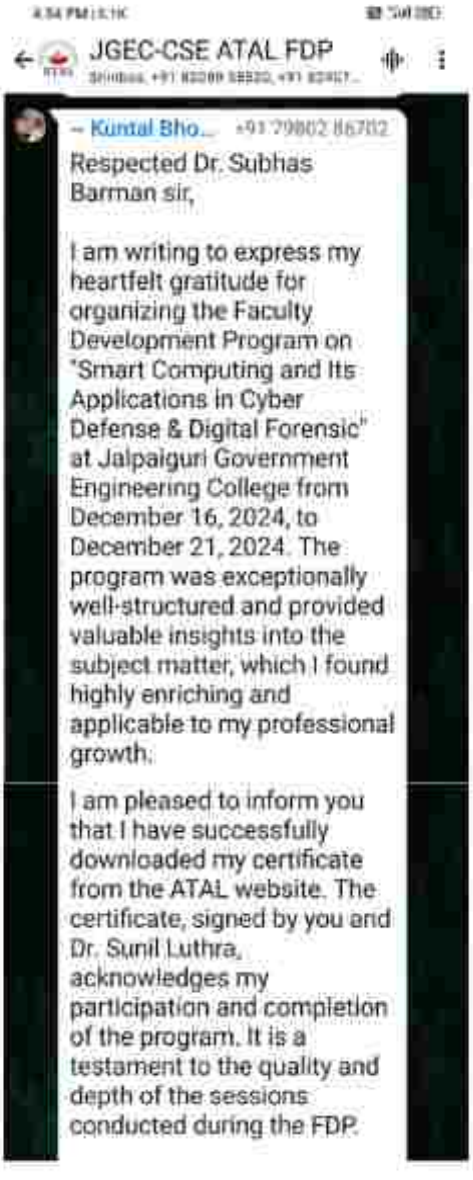
DAY 6: Session 12

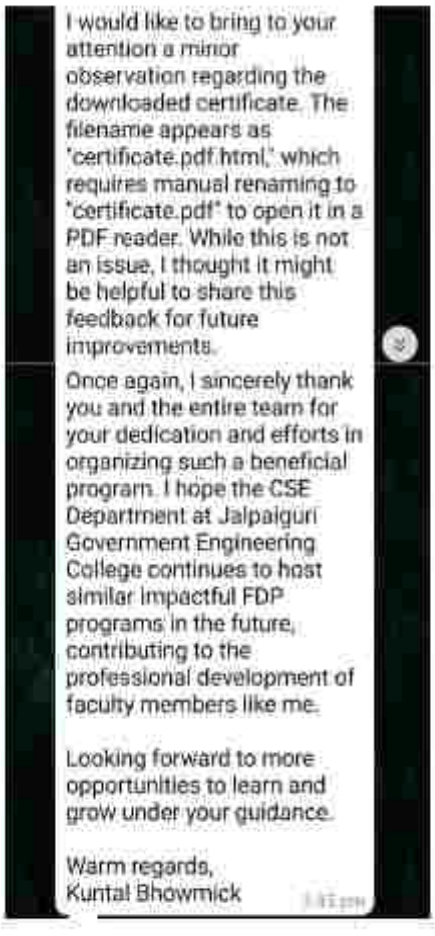
Topic: **Online Hate Speech Detection on Code-mixed Hindi-English text and Hindi text in Devanagari**
by
Dr. Uttam Ghosh,
Associate Professor, Meharry Medical College, USA

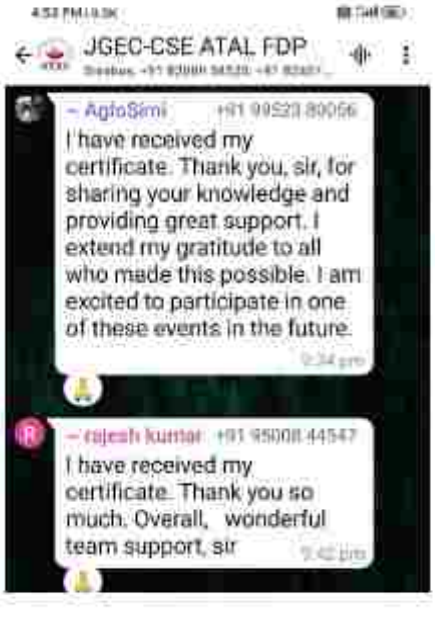
DAY 6: Session 13

Topic: Application of Machine Learning and Natural Language Processing for Financial Fraud detection
by
Mr. Sayantan Dutta
Lead Assistant Vice President IGRC, AI & Analytics division, HSBC;

Some of the feedback received for the FDP are as below







It was a great initiative by ATAL Academy. We are thankful to AICTE for allowing us to conduct an online FDP for faculty members of the Technical Institute of India free of cost. We got a huge response for registration as well as lots of compliments on arranging the online faculty development program.

Link of recorded FDP Session

Click here for recorded FDP sessions in the YouTube Channel

Link of facebook live in the departmental FB Page

Day 1

Day 2

Day 3

Day 4

Day 5

Day 6

FEEDBACK

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Media Coverage

অনলাইন নিউজ পোর্টাল
উত্তরবঙ্গ সংবাদ

Jalpaiguri Government Engineering College | সাইবার ক্রাইম নিয়ে সেমিনার

অনুপ্রা চৌধুরী, জলপাইগুড়ি: জলপাইগুড়ি গভর্নমেন্ট ইঞ্জিনিয়ারিং কলেজের (Jalpaiguri Government Engineering College) তরফে ফ্যাকাল্টি ডেভেলপমেন্ট প্রোগ্রাম আয়োজিত হতে চলেছে। যেখানে সাইবার অপরাধের নানা দিক, সাইবার ক্রাইম জগতে বিশেষজ্ঞদের পরেষণা ও ডিজিটাল ফরেন্সিকের বিষয় নিয়ে আলোচনা হবে। ১৬ ডিসেম্বর ওই সেমিনার শুরু হবে। ২১ ডিসেম্বর পর্যন্ত চলবে। সেমিনারটি অনলাইনে হবে। সেমিনারের বিষয় 'স্মার্ট কম্পিউটিং অ্যান্ড ইটস অ্যাপ্লিকেশন ইন সাইবার ডিফেন্স অ্যান্ড ডিজিটাল ফরেন্সিক।'

জলপাইগুড়ি গভর্নমেন্ট ইঞ্জিনিয়ারিং কলেজের কম্পিউটার সায়েন্স অ্যান্ড ইঞ্জিনিয়ারিংয়ের বিভাগীয় প্রধান ডঃ সুভাষ বর্মন বলেন, 'আমরা যেভাবে আজকেই সাইবার ক্রাইমের শিকার হচ্ছি তা বড় চিন্তার। সাইবার ক্রাইম জগতে পরেষণা করছেন এমন অনেকেই এই আলোচনায় যোগ দেবেন। এই সেমিনার ডিজিটাল ফরেন্সিক কীভাবে কাজ করে জানতে সাহায্য করবে।' অল ইন্ডিয়া কাউন্সিল ফর টেকনিকাল এডুকেশনের (এআইসিটিই) আর্থিক সাহায্যে ওই অনুষ্ঠান আয়োজিত হতে চলেছে।

উত্তরবঙ্গ সংবাদ

সাইবার ক্রাইম নিয়ে আলোচনা

আনন্দবাজার পত্রিকা

আলোচনাসভা

জলপাইগুড়ি: 'স্মার্ট কম্পিউটিং অ্যান্ড ইটস অ্যাপ্লিকেশন ইন সাইবার ডিফেন্স অ্যান্ড ডিজিটাল ফরেন্সিক' শীর্ষক আলোচনাসভার আসর বসল জলপাইগুড়িতে। সোমবার সন্ধ্যায় জলপাইগুড়ি গভর্নমেন্ট ইঞ্জিনিয়ারিং কলেজের কম্পিউটার বিজ্ঞান বিভাগের উদ্যোগে এই কর্মসূচির সূচনা হয়। জলপাইগুড়ির একটি বহুজাতিক পানীয় সংস্থার অন্যতম আধিকারিক কৃষ্ণগোপাল মণ্ডল অনুষ্ঠানের সূচনা করেন। দেশের বিভিন্ন প্রান্ত থেকে অন্তত ২৫০ জন শিক্ষক শিক্ষিকা, গবেষক অনলাইনে এই কর্মসূচিতে হাজির থাকতে নাম নথিভুক্ত করেছেন বলে সংশ্লিষ্ট বিভাগের প্রধান সুভাষ বর্মন জানিয়েছেন।

উত্তরবঙ্গ সংবাদ

19-12-2024

তথ্য সুরক্ষা নিয়ে আলোচনা

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Media Coverage

উত্তরবঙ্গ সংবাদ

22-12-2024

হ্যাকারদের থেকে বাঁচার উপায় নিয়ে আলোচনা

জলপাইগুড়ি, ২১ ডিসেম্বর : জলপাইগুড়ি গভর্নমেন্ট ইঞ্জিনিয়ারিং কলেজের তরফে আয়োজিত ফ্যাকাল্টি ডেভেলপমেন্ট প্রোগ্রাম শেষ হল শনিবার। ছয়দিন ধরে চলা এই অনুষ্ঠানে আর্থিক দিক দিয়ে সাহায্য করেছিল অল ইন্ডিয়া কাউন্সিল ফর টেকনিকাল এডুকেশন (এআইসিটিই)। 'স্মার্ট কম্পিউটিং অ্যান্ড ইটস অ্যাপ্লিকেশন ইন সাইবার ডিফেন্স অ্যান্ড ডিজিটাল ফরেন্সিক' শীর্ষক বিষয় নিয়ে আলোচনা চলে। দেশের ১৫টি রাজ্যের ৮৫টি কলেজ এবং বিশ্ববিদ্যালয়ের প্রায় ২৫০ জন অধ্যাপক এবং গবেষকরা এই প্রোগ্রামে অংশ নেন।

১৬ তারিখ থেকে শুরু হওয়া প্রোগ্রামে ইন্ডাস্ট্রি-হেলথ সেক্টরে সাইবার ক্রাইমের হাত থেকে বাঁচার উপায় নিয়ে আলোচনা চলেছে। এআই ব্যবহার করে বিভিন্ন হ্যাকিং অ্যাপ্লিকেশন বাজারে ছড়িয়ে দিচ্ছে হ্যাকাররা। সেসব প্রতিকারের উপায় নিয়ে কথা বলেন দেশবিদেশের ১৩ জন গবেষক, অধ্যাপক এবং ইন্ডাস্ট্রি এক্সপার্টরা।

অনুষ্ঠানের কোঅর্ডিনেটর অধ্যাপক সুভাষ বর্মন বলেন, 'এই ধরনের আলোচনা ভবিষ্যতে গবেষণার বিষয়ে দিকনির্দেশ করল। এরপর অধ্যাপক এবং গবেষকরা হয়তো এমন কিছু আবিষ্কার করবেন, যা হ্যাকারদের হাত থেকে সাধারণ মানুষকে বাঁচাতে সাহায্য করবে।'

আনন্দবাজার পত্রিকা

22-12-2024

শিল্পে সাইবার নিরাপত্তা বাড়াতে আলোচনা সভা

জলপাইগুড়ি

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