



SAI RAM ENGINEERING COLLEGE

An Autonomous Institution | Affiliated to Anna University & Approved by AICTE, New Delhi
Accredited by NBA and NAAC "A+" | BIS/EOMS ISO 21001 : 2018 Certified and NIRF ranked institution
Sai Leo Nagar, West Tambaram, Chennai - 600 044. www.sairam.edu.in



SRI SAIRAM ENGINEERING COLLEGE DEPARTMENT OF CSE – CYBERSECURITY

Report on

Title : Virtual Faculty Development Programme On “Ai And Machine Learning Applications In Cyber Security”

Resource people

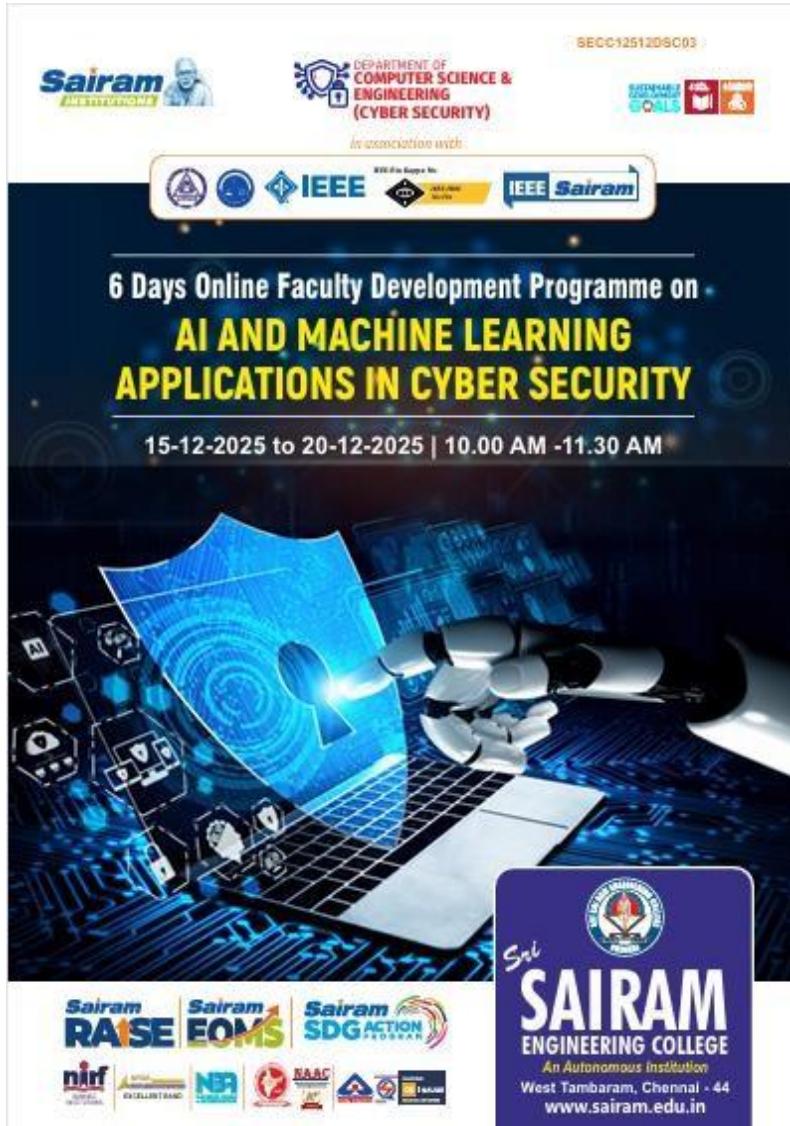
1. Dr. Saroja S, Assistant Professor, NIT Tiruchirappalli,
2. Dr. K. B. Sundhara Kumar, Associate Professor, Shiv Nadar University Chennai,
3. Mr. Arun Munuswamy, Senior Delivery Manager, Fractal Analytics,
4. Dr. U. Srinivasulu Reddy, Associate Professor, NIT Tiruchirappalli,
5. Mr. N. S. Bharath Kumar, Senior Staff Product Security, ServiceNow Pvt. Ltd.,
6. Dr. Tripti Swarnkar, Professor & Head, NIT Raipur.

DATE:15.12.2025 to 20.12.2025

VENUE:Online

OBJECTIVE OF THE EVENT:

A Virtual Faculty Development Programme (FDP) on “**AI and Machine Learning Applications in Cyber Security**” was held from **15th to 20th December 2025**, featuring expert sessions by leading academicians and industry professionals. The programme covered key topics such as machine learning fundamentals, data preprocessing, supervised and unsupervised learning, anomaly detection, generative AI, and modern tools and frameworks for cyber security. Speakers from NIT Tiruchirappalli, Shiv Nadar University Chennai, NIT Raipur, Fractal Analytics, and ServiceNow shared both theoretical insights and practical perspectives. The FDP successfully enhanced participants’ knowledge of AI-driven cyber security solutions and emerging research trends.



in association with



IEEE

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Nu Eta

IEEE **Sairam**

6 Days Online Faculty Development Programme on AI AND MACHINE LEARNING APPLICATIONS IN CYBER SECURITY

15-12-2025 to 20-12-2025 | 10.00 AM -11.30 AM



Sri
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West Tambaram, Chennai - 44
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NAAC
ACCREDITATION COUNCIL

A+¹

Bureau of Indian Standards

IS/ISO 21001
EOMS

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INDIAN COLLEGE RATINGS

ABOUT THE INSTITUTION

Sri Sai Ram Engineering College, Chennai, established in the year 1995 by MJF.Ln.Leo Muthu, Chairman of Sapthagiri Educational Trust is a non-profitable and non-minority institution. A well defined vision, highly committed mission and dedicated leadership facilitate Sri Sai Ram Engineering College to be in the best of educational institutions in the country. Since its inception, our Institution has grown into a vast conglomerate of magnificent buildings, state-of-the art and sophisticated laboratories, internet centers, modern library and a superlative sports complex-each a landmark in itself across 300 acres. The College is an AUTONOMOUS Institution affiliated to Anna University and is also approved by the All India Council for Technical Education, New Delhi. Our Students are motivated to be technologically superior and ethically strong, who in turn shall contribute to the advancement of society and mankind, to build a better nation through quality education with team spirit. All the NBA eligible disciplines of Engineering and Management have been accredited by the National Board of Accreditation. Our college is certified with IS/ISO 21001:2018(EOMS) by the Bureau of Indian Standards, holds a NAAC A+ accreditation and earned a DIAMOND rating by QS I- GUAGE.

ABOUT THE DEPARTMENT

The Department of Computer science and Engineering (Cyber Security), established in 2024–25, was created to meet the growing global demand for skilled professionals in safeguarding digital systems. The department offers a comprehensive and practice-driven curriculum that blends strong theoretical foundations with hands-on learning. Regular guest lectures, seminars, workshops, and training programs by renowned national and international experts ensure students remain updated with the latest trends in the cybersecurity landscape. With a strong focus on research, innovation, and professional excellence, the department aims to develop competent cybersecurity leaders capable of addressing real-world challenges and protecting critical digital infrastructures worldwide.

VISION

To emerge as a “Centre of Excellence” in the field of Cybersecurity, providing cutting-edge skill sets, deep domain expertise, and industry collaborations to nurture students into highly skilled, ethical professionals who contribute to safeguarding digital ecosystems and inspire them to become responsible members of society.

MISSION

The Department of Computer science and Engineering (Cyber Security), Sri Sairam Engineering College, is committed to

- M1. To facilitate a high-quality learning environment with excellent teaching and adequate infrastructure.
- M2. To attain excellence and nurture growth in the field of computer science, emphasizing cybersecurity.
- M3. Collaborate with industries to create opportunities for advanced real-time projects and internships, connecting academic learning with practical application.
- M4. Promote moral and ethical values within the curriculum to enhance interpersonal skills and social awareness.

PROGRAM OVERVIEW

This Faculty Development Program (FDP) on “AI and Machine Learning Applications in Cybersecurity” is designed to equip participants with a strong foundation in modern AI-driven security techniques. The sessions focus on core machine learning concepts, data preprocessing methodologies, anomaly detection, supervised and unsupervised learning techniques, and the application of Generative AI in strengthening cybersecurity frameworks. Participants will gain hands-on exposure to tools, frameworks, and real-world methodologies used to detect threats, analyze security data, and build intelligent, automated defense systems.

OBJECTIVES

- To introduce participants to machine learning fundamentals and their relevance in cybersecurity.
- To enable participants to perform data preprocessing and feature engineering for security-related datasets.
- To provide hands-on understanding of unsupervised learning techniques and anomaly detection methods.
- To equip participants with knowledge of supervised learning algorithms used for cyber threat identification.
- To familiarize participants with tools and frameworks used for implementing ML models in cybersecurity.
- To explore the role of Generative AI and threat modelling techniques in building secure AI-driven systems.

TOPICS TO BE COVERED

- Unsupervised Learning and Anomaly Detection
- Data Preprocessing and Feature Engineering for Security Data
- Introduction to Machine Learning & Tools and Frameworks for ML in Cybersecurity
- Generative AI for Cyber Security
- Supervised Learning Algorithms in Cyber Security
- Threat Modelling for Generative AI Systems

TARGET AUDIENCE

- PG Students, Research Scholars, Faculty Members, and Industry Professionals working or aspiring to work in cybersecurity and AI domains.
- Individuals interested in machine learning, cyber threat detection, Generative AI applications, and intelligent security systems.

PROGRAM OUTCOMES

- Gain a strong foundational understanding of machine learning concepts used in cybersecurity.
- Develop the ability to preprocess, clean, and engineer features from security datasets.
- Acquire the capability to apply unsupervised learning techniques for anomaly detection.
- Build skills to implement supervised learning models for cyber threat prediction and classification.
- Attain proficiency in using machine learning tools and frameworks relevant to cybersecurity applications.
- Understand the role of Generative AI in cyber defense and apply threat modelling techniques for AI-driven systems.

REGISTRATION DETAILS

- Registration Details Mode: Online
- Registration Fee: Free for internal participants. ₹200/- for external participants.
- Last Date for Registration: **12.12.2025**

REGISTRATION LINK :

<https://tinyurl.com/seccyberfdp>



BENEFICIARY BANK DETAILS

Bank Name : CITY UNION BANK
Account Holder Name : Sri Sairam Engineering College
Account Number : 510909010112273
Account Type : CURRENT ACCOUNT
Branch Name : POONTHANDALAM
CITY : CHENNAI
BRANCH IFSC Code : CIUB0000634
MICR No : 600054125
SWIFT Code:CIUBIN5MXXX

Honourable Speakers

Day 1 : 15.12.2025



Dr. Saroja S

Assistant Professor, Department of Computer Applications
National Institute of Technology, Tiruchirappalli

Title: Unsupervised Learning and Anomaly Detection

Day 2 : 16.12.2025



Dr. K. B. Sundhara Kumar

Associate Professor, Department of Computer Science and Engineering
Shiv Nadar University, Chennai

Title: Data Preprocessing and Feature Engineering for Security Data

Day 3 : 17.12.2025



Mr. Arun Munuswamy

Senior Delivery Manager
Fractal Analytics

Title: Introduction to Machine Learning and Tools and Frameworks for Machine Learning in Cyber Security

Day 4 : 18.12.2025



Dr. U. Srinivasulu Reddy

Associate Professor, Department of Computer Applications
National Institute of Technology, Tiruchirappalli

Title: Generative AI for Cyber Security

Day 5 : 19.12.2025



Mr. N. S. Bharath Kumar

Senior Staff Product Security
ServiceNow Pvt. Ltd.

Title: Threat modelling for generative AI system

Day 6 : 20.12.2025



Dr. Tripti Swarnkar

Professor & Head, Department of Computer Applications
National Institute of Technology, Raipur

Title: Supervised Learning Algorithms in Cyber Security

Imagine the Future and Make it happen!



1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS	

Together let's build a better world where there is **NO POVERTY** and **ZERO HUNGER**. We have **GOOD HEALTH AND WELL BEING**, **QUALITY EDUCATION** and full **GENDER EQUALITY** everywhere.

There is **CLEAN WATER AND SANITATION** for everyone. **AFFORDABLE AND CLEAN ENERGY** which will help to create **DECENT WORK AND ECONOMIC GROWTH**. Our prosperity shall be fuelled by investments in **INDUSTRY, INNOVATION AND INFRASTRUCTURE** that will help us to **REDUCE INEQUALITIES** by all means. We will live in **SUSTAINABLE CITIES AND COMMUNITIES**.

RESPONSIBLE CONSUMPTION AND PRODUCTION will help in healing our planet.

CLIMATE ACTION will reduce global warming and we will have abundant, flourishing **LIFE BELOW WATER**, rich and diverse **LIFE ON LAND**.

We will enjoy **PEACE AND JUSTICE** through **STRONG INSTITUTIONS** and will build long term **ARTNERSHIPS FOR THE GOALS**.



*For the goals to be reached, everyone needs to do their part: governments, the private sector, civil society and **People like you**.*

Together we can..

Chairman & CEO - Sairam Institutions

► ORGANISING COMMITTEE



Chief Patron
Dr. Sai Prakash LeoMuthu
Chairman & CEO



Co-Convenor
Mr. M. Subramanian
Associate Professor/ CSE (Cybersecurity)
Contact No: +91 - 92455 25838



Patrons
Dr. J. Raja
Principal



Co-ordinators
Ms. M. Banupriya
Assistant Professor / CSE (Cybersecurity)
Contact No: +91-82484 14905



Dr. Soma Prathibha
Professor & Head – CSE (Cybersecurity)



Ms. P. Thenmozhi
Assistant Professor / CSE (Cybersecurity)
Contact No: +91 - 9363946202



Convenor
Ms. S. Premalatha
Associate Professor/ CSE (Cybersecurity)



**Sairam
RAISE**

*Inspiring
PEOPLE*

**Sairam
EOMS**

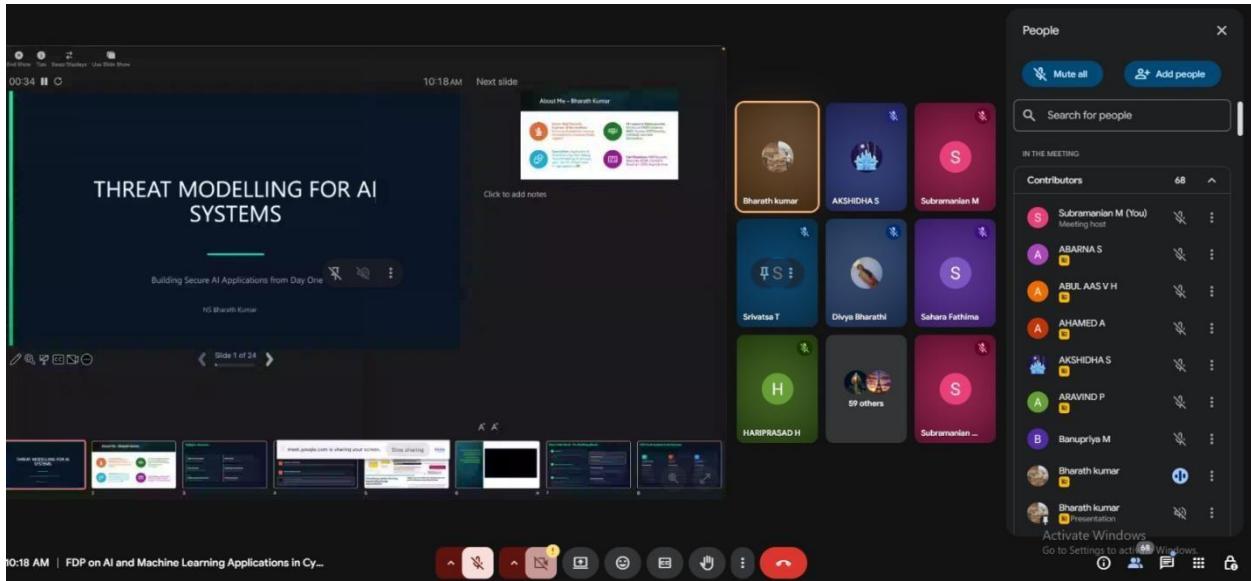
*Improving
PROCESS*

**Sairam
SDG ACTION
PROGRAM**

*Instilling
PURPOSE*



Together we can..



Srinivasulu Reddy U (Presenting)

Generative AI for Cyber Security



Dr. U. Srinivasulu Reddy
Associate Professor
Department of Computer Applications
National Institute of Technology
Tiruchirappalli
usreddy@nitt.edu



10:08 AM | FDP on AI and Machine Learning Application...

People

Mute all Add people

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IN THE MEETING

Contributors	54
Subramanian M (You) Meeting host	
Abinaya I	
ABUL AAS V H	
AHAMED A	
AKSHIDHA S	

KARTHICKA S

ARAVIND P

Subramanian M

AKSHIDHA S

MRIDULA J

NITHISH R

Srinivasulu Reddy U

41 others

Subramanian M

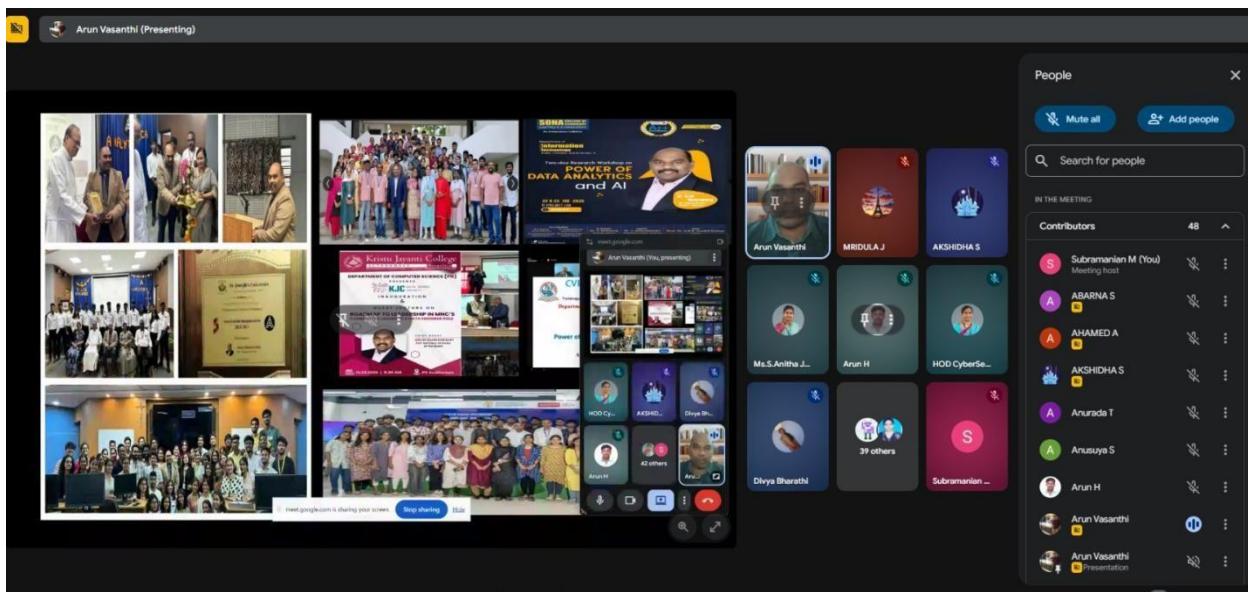
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AHAMED A	
AKSHIDHA S	



FEEDBACK