DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

One Week Faculty Development Programme

On

Emerging trends and Advanced Threat Mitigation in Cyber Security

The Department of Computer Science and Engineering, B.S. Abdur Rahman Crescent Institute of Science and Technology, Chennai conducted One week FDP on Emerging trends and Advanced Threat Mitigation in Cyber Security . The details as follows

Topic   : Emerging trends and Advanced Threat Mitigation in Cyber Security

Date   : 7-4-2025 to 12-4-2025

No. of participants : 80

The report discusses about the following aspects with respect to the session

1. Session poster
2. Preamble
3. About Speaker and Takeaways of FDP on each Session day_by_day
4. Session photos
5. Feedback from participants
6. Participants list

1. **Session Poster**

Crescent
Institute of Science & Technology

Faculty Development Programme
on

Emerging Trends and Advanced Threat Mitigation in Cyber Security

ONLINE MODE

7TH TO 12TH APRIL 2025

Organized By,

Department of Computer Science & Engineering

School of Computer Information and Mathematical Sciences

B.S. Abdur Rahman Crescent Institute of Science & Technology

Vandalur, Chennai -600048

ABOUT THE INSTITUTE

B.S. Abdur Rahman Crescent Institute of Science and Technology was established at 1984 with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. B.S. Abdur Rahman Crescent Institute of Science and Technology was a renowned Quality Leadership institution accredited with grade 'A+' by NAAC. Through our long history of 40 years of excellence, the institution has offered access to a wider angel of academic opportunities. With 57 programmes, grouped under 12 different Schools, 32 Undergraduate programmes, 25 Postgraduate programmes, and Ph.D (in all the departments), this institution is a rising stalwart in higher education with promising Quality, Security and Placement.

ABOUT THE DEPARTMENT

The Department of Computer Science & Engineering since 1990 (30 Years of Excellence). The department offers four undergraduate programs namely B.Tech. Computer Science and Engineering, B.Tech. Artificial Intelligence & Data Science, B.Tech. CSE (Cyber Security), and B.Tech. CSE (Internet of Things). The vision of the Department of Computer Science and engineering is to impart quality education, inculcate professionalism and enhance the problem solving skills of the students in the domain of Computer Science and Engineering with a focus to make them industry ready, involve in possible areas of research, to pursue and have continual professional growth.

ABOUT THE FDP

This Faculty Development Program (FDP) aims to explore emerging trends and advanced threat mitigation strategies in Cyber Security through a series of expert-led sessions and invited lectures. In today's rapidly evolving digital landscape, cyber security challenges are more complex than ever, requiring continuous learning and adaptation.

This FDP is designed to address key cyber security concerns, including network security, cryptographic advancements, threat intelligence, ethical hacking, and AI-driven security solutions. Participants from various institutions will gain a deeper understanding of cyber security principles, emerging attack vectors, and the latest defense mechanisms.

Topics to be Covered

- *Emerging Trends in Cyber Security*
- *Web Application Penetration Testing*
- *Mobile Application Penetration Testing*
- *Open Source Intelligence*
- *Network Security and Intrusion Detection*
- *Port Knocking*
- *Vulnerability Management*
- *Thick Client Pentesting*

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REGISTRATION

Registration Fee Rs 300/-

PAYMENT DETAILS

Scan & Pay

REGISTRATION LINK

https://forms.gle/Y1nrAU3mFg4ki1we9

E-Certificate will be provided to active Participants

SCAN TO REGISTER

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2. **Preamble**

The FDP featured expert-led sessions covering a range of topics, including thick client penetration testing, vulnerability management, open-source intelligence (OSINT), port knocking, offensive hacking techniques, web application penetration testing, and the integration of artificial intelligence in cybersecurity. Participants engaged in hands-on demonstrations and case studies, providing them with practical insights into the evolving cybersecurity landscape.By fostering a collaborative learning environment,

the FDP not only enhanced participants' technical acumen but also emphasized the importance of continuous education and adaptation in the face of sophisticated cyber threats. This initiative underscores the institution's commitment to advancing knowledge and fostering innovation in the field of cybersecurity.

3. About the Speaker and Takeaways of FDP on Each Session day_by_day:

Day 1 – 7th April 2025

Topic: Thick Client Pentesting

Resource Person: Mr. Jaswanth R, Product Security Engineer, Confidential, Chennai
Session Type: Forenoon & Afternoon
Overview:
Thick client applications, which process data locally rather than over the web, require specialized security testing approaches. Mr. Jaswanth discussed architecture-level understanding, common attack vectors, reverse engineering techniques, and tools like Burp Suite, OWASP ZAP, and Wireshark for analyzing traffic between the thick client and server.

Day 2 – 8th April 2025

Topic: Vulnerability Management

Resource Person: Mr. Ijaz Ahamed M, IT Project Manager, GP Strategies Corporation, Chennai
Session Type: Forenoon
Overview:
This session focused on identifying, classifying, remediating, and mitigating vulnerabilities. Mr. Ijaz shared insights into vulnerability scanning tools (Nessus, Qualys), patch management strategies, and establishing vulnerability management policies aligned with ISO 27001 standards.

Topic: Open Source Intelligence (OSINT)

Resource Person: Mr. Koushik Ram, Security Analyst, Red Team Training, Chennai
Session Type: Afternoon
Overview:
Participants explored how to gather publicly available information for ethical hacking. The session covered data sources (social media, WHOIS, metadata), tools like Maltego and Recon-ng, and legal/ethical aspects of OSINT.

Day 3 – 9th April 2025

Topic: Vulnerability Management Part 2 – Prioritization and Remediation

Resource Person: Mr. Ijaz Ahamed M
Session Type: Forenoon
Overview:
A continuation of the previous session, this part emphasized CVSS scoring, prioritization frameworks (e.g., risk-based, asset-based), and remediation workflows. The practical segment included case studies of zero-day vulnerabilities.

Topic: Port Knocking

Resource Person: Mr. Vignesh, Junior Analyst, Postika, Chennai
Session Type: Afternoon
Overview:
Port Knocking was introduced as a stealthy firewall authentication technique. The demonstration covered setting up knock sequences, scripting custom knocks, and using tools like Knockd. Security implications and alternatives (e.g., Single Packet Authorization) were discussed.

Day 4 – 10th April 2025

Topic: Offensive Hacking and Security

Resource Person: Mr. Karthikeyan V, CEO, Cappricio Securities, Chennai
Session Type: Forenoon
Overview:
This session delved into adversarial cybersecurity tactics including social engineering, privilege escalation, and red teaming exercises. Mr. Karthikeyan emphasized the importance of ethical boundaries and provided demonstrations using Kali Linux and Metasploit.

Topic: Web Application Penetration Testing

Resource Person: Mr. Karthikeyan C, CEO, Cappricio Securities, Chennai
Session Type: Afternoon
Overview:
Focused on OWASP Top 10 vulnerabilities, such as XSS, SQLi, and CSRF, this session offered practical experience with web pentesting tools and techniques. A hands-on demonstration using DVWA (Damn Vulnerable Web App) was the highlight.

Day 5 – 11th April 2025

Topic: AI Cubeysecurity

Resource Person: Prof. R. Anjit Raja, SME-L1, AI/ML, IoT, Larsen & Toubro Ltd., Chennai
Session Type: Forenoon & Afternoon
Overview:
Blending Artificial Intelligence with Cyber Security, Prof. Raja explored AI-driven intrusion

detection systems, anomaly detection models, and predictive analytics for threat intelligence. Tools like TensorFlow and Scikit-learn were introduced for modeling.

Day 6 – 12th April 2025

Topic: Cyber Security Practices – Closing Remarks & Guest Talk
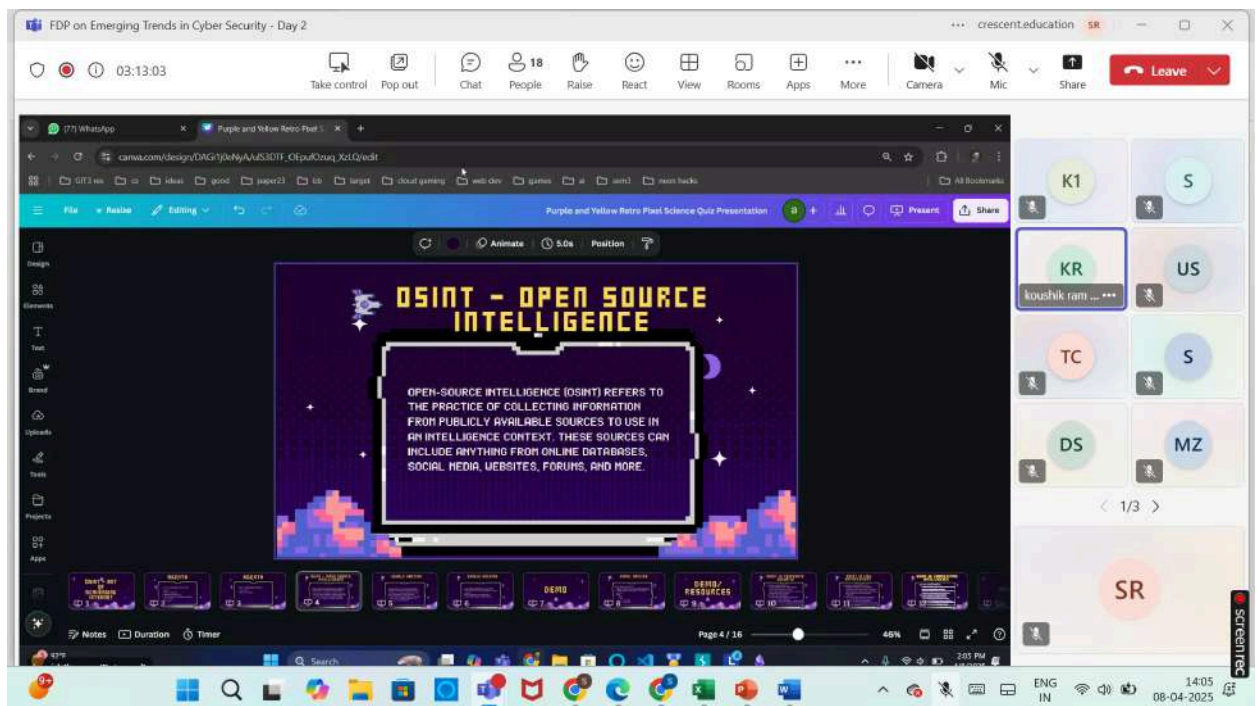
Resource Person: Mr. Muhammad Aadil, Information Security Engineer, Survey Sparrow Pvt. Ltd., Chennai
 Session Type: Forenoon
 Overview:
 Mr. Aadil wrapped up the FDP with insights into real-world incident response, security operations center (SOC) structures, and future trends in cyber defense. He stressed continual learning and certifications like CISSP and OSCP.

4. **Session photo**

5. Feedback from Participants

Rate Overall FDP.
49 responses

Day 1 Key Speaker: Mr. Jaswanth R, Product Security Engineer, Confidential, Chennai

Rate the Delivery of Speaker
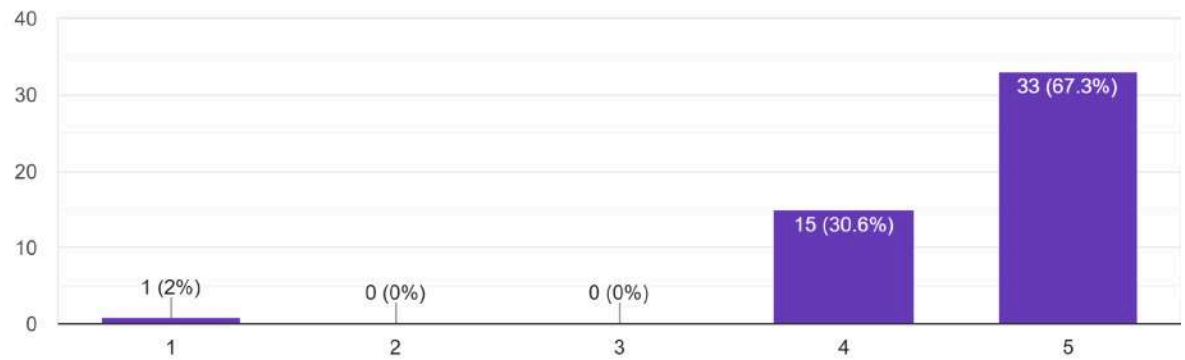
49 responses

Day 2 (FN) and Day 3 (FN) : Speaker- Mr. Ijaz Ahamed M, IT Project Manager, GP Strategies Corporation, Chennai

Rate the Delivery of Speaker

49 responses
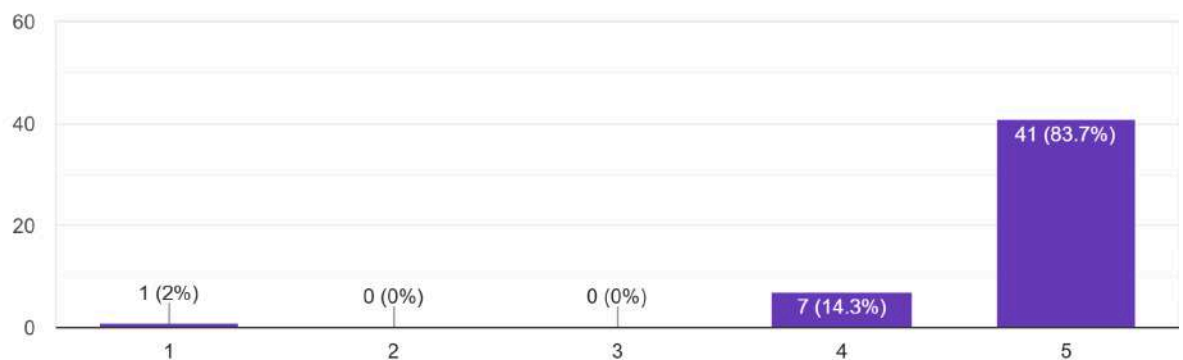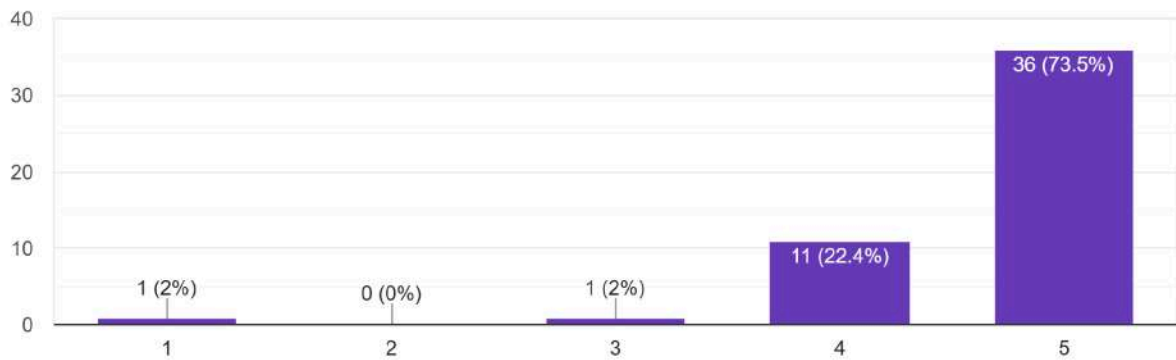
Day 2(AN): Speaker: Mr. Koushik Ram, Security Analyst, Red Team Training, Chennai

Rate the Delivery of Speaker
49 responses
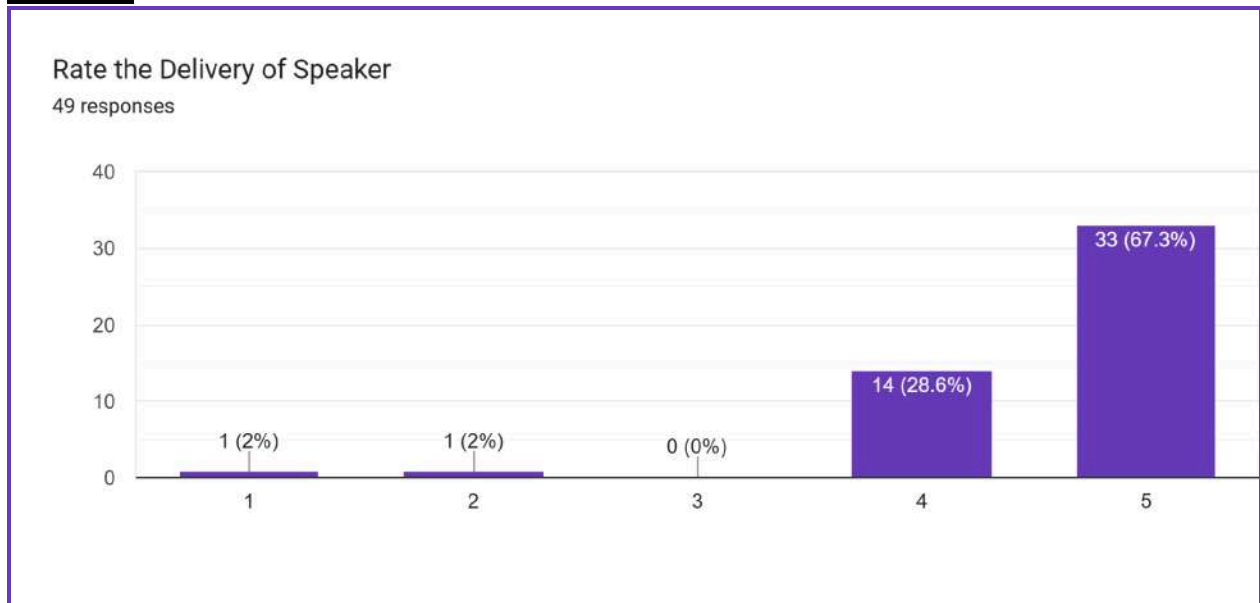
iDay 3(AN): Speaker: Mr. Vignesh, junior Analyst, Postika, Chennai

Rate the Delivery of Speaker
49 responses
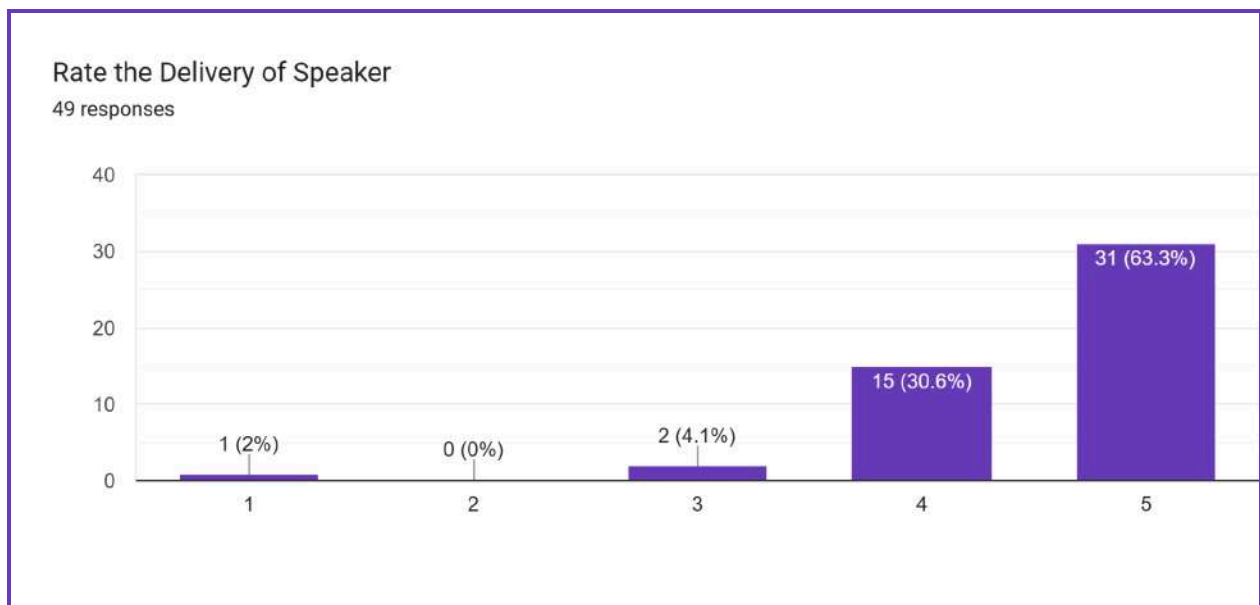
Day 4(FN): Speaker: Mr. Karthikeyan V , Chief Executive Officer, Cappricio Securities, Chennai

Rate the Speaker
49 responses
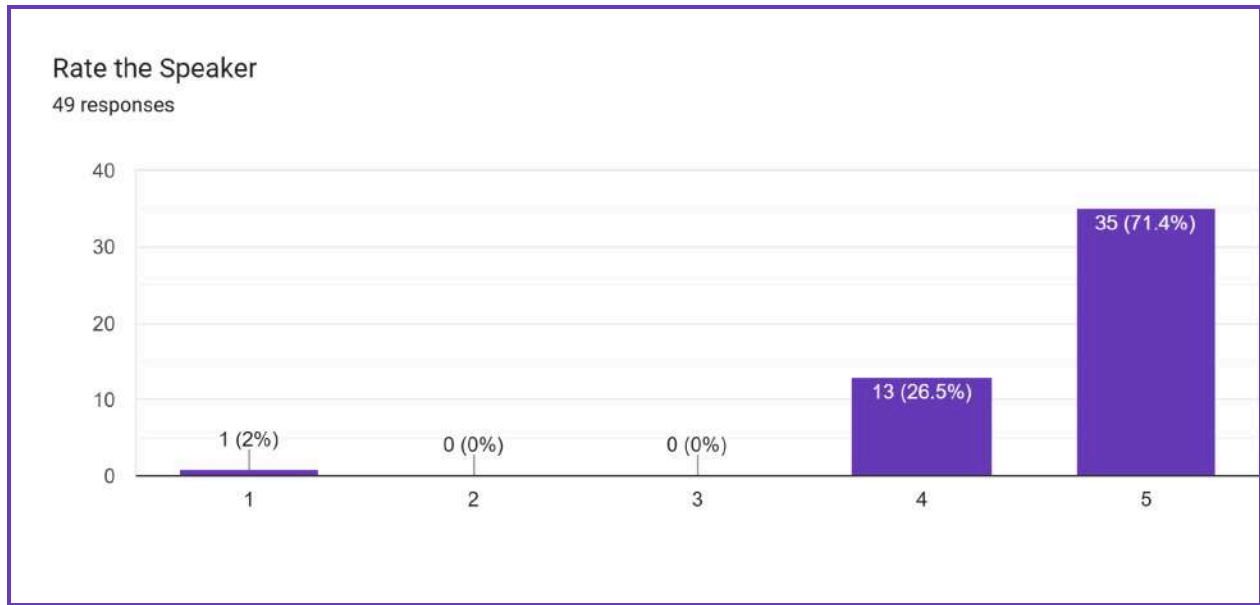
Day 4(AN): Speaker: Mr. Karthikeyan C, Chief Executive Officer, Cappricio Securities, Chennai

Rate the Speaker
49 responses
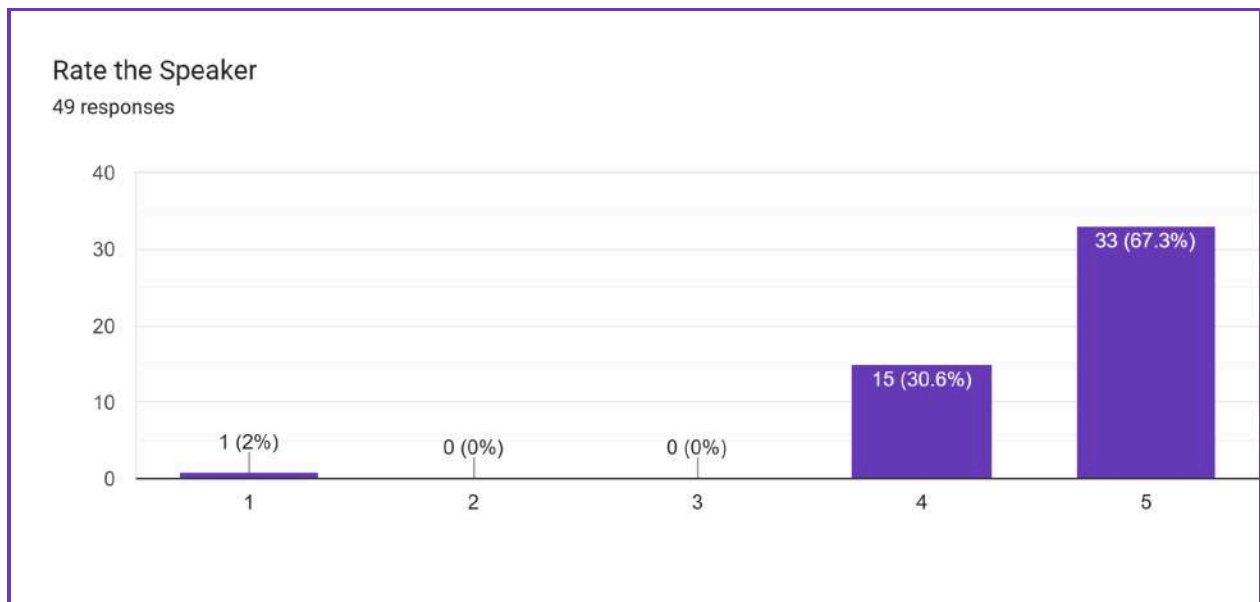
Day 5:Speaker: Prof Anjit Raja, (SME-L1)- AI/ML, IoT, Larsen& Turbro Ltd., Chennai

Rate the Speaker
49 responses
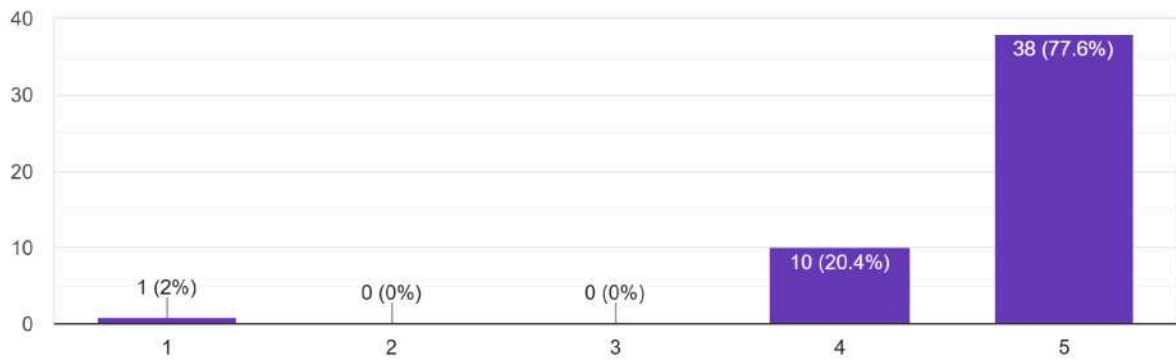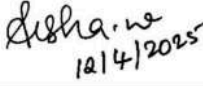
Day 6: Speaker: Muhammad Aadil, Information Security Engineer, Survey Sparrow Pvt. Ltd

Rate the Speaker
49 responses
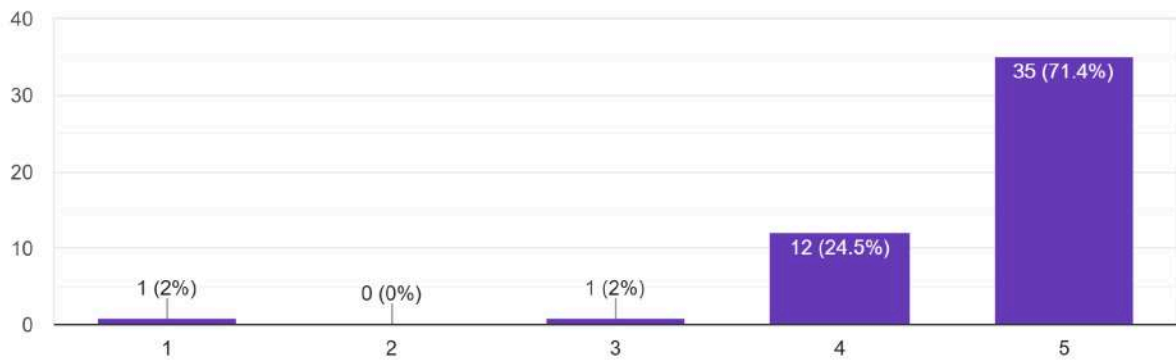
E-Certificate

SCHOOL OF COMPUTER INFORMATION
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MATHEMATICAL SCIENCES

Crescent
Institute of Science & Technology

DEPARTMENT OF COMPUTER SCIENCES AND ENGINEERING

Certificate of participation

This is to certify that

Dr. Anna Anbumozhi - Data Science and Business Systems

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

has participated in the one week Faculty Development Programme(FDP) on "*Emerging Trends and Advanced Threat Mitigation in Cyber Security*" conducted by the Department of Computer Science and Engineering, BS Abdur Rahman Crescent Institute of Science and Technology, Chennai, during 07.04.2025 - 12.04.2025.

12/4/2025

Dr. E. Syed Mohamed
Coordinator

Dr. W. Aisha Banu
HOD/CSE

Dr. Sharmila Sankar
Dean(SCIMS)
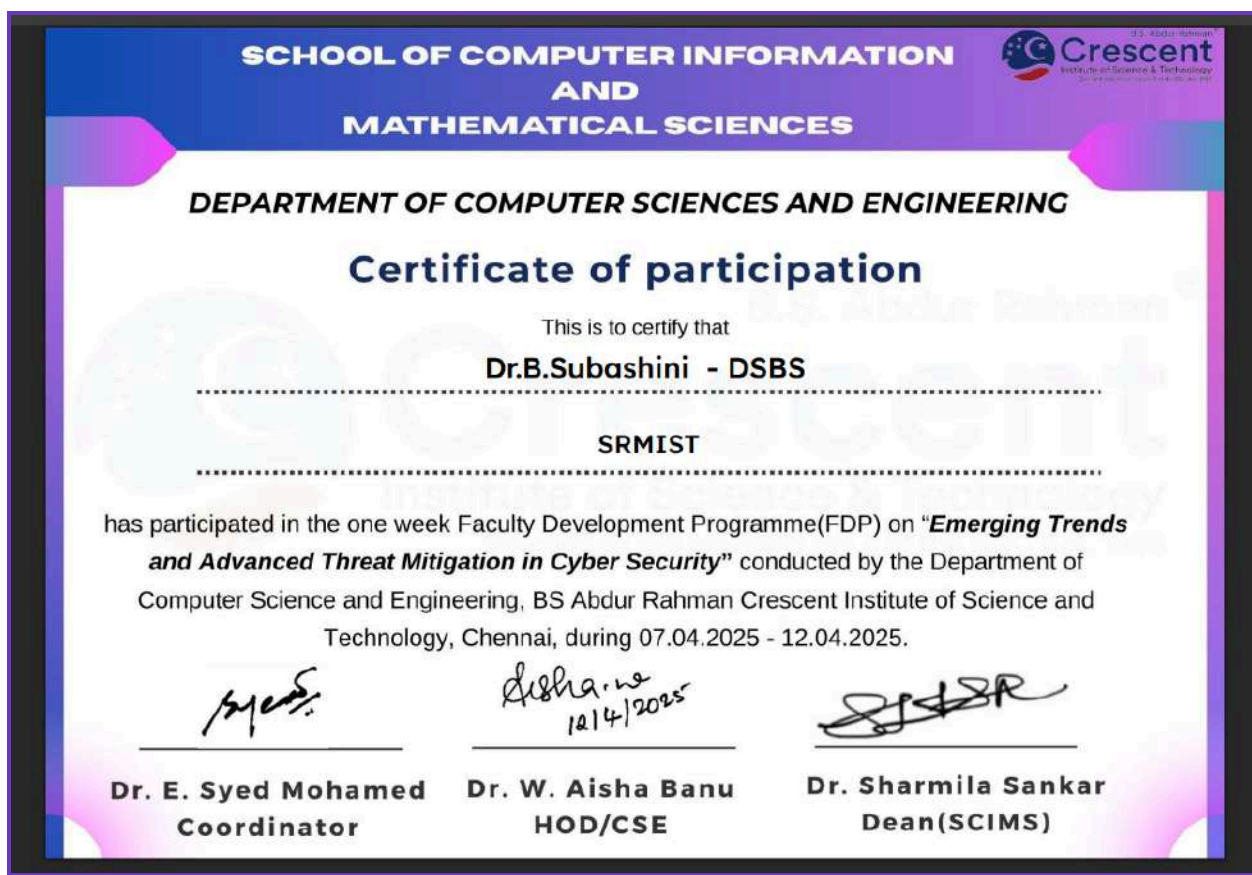
6. Participants list

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Mrs. H. Faheem Nikhat

Mr. Mohammed Irfan S.N