NEW HORIZON COLLEGE OF ENGINEERING

DEPARTMENT OF INFORMATION SCIENCE & ENGINEERING

Workshop
On
"Cybersecurity Unlocked: Protect, Detect & Respond"

Participants: 4th Semester Students   **Date:** 21-March-2025

Brief Description of The Event:

On March 21st, 2025, our institution had hosted a workshop on the "Cybersecurity Unlocked: Protect, Detect & Respond" by Anil B P Rao, V.P. Delivery & Operations| Customer Success, Rezilyens system software India Pvt Ltd. In today's interconnected digital landscape, cybersecurity is a crucial aspect of protecting individuals, businesses, and governments from cyber threats. The strategy to ensure cybersecurity revolves around three primary pillars: **Protect, Detect, and Respond**. This report delves into these three elements, providing an in-depth understanding of their importance and implementation.

Following this, the instructor guided students through the Key Protection Strategies:

Network Security, Endpoint Security, Access Control & Authentication, Data Encryption, Security Awareness Training.

Key Points Covered:

1. Protect: Establishing a Strong Cybersecurity Foundation

The first step in cybersecurity is prevention. Organizations and individuals must implement robust security measures to reduce vulnerabilities and safeguard data.

Key Protection Strategies:

- **Network Security:** Implementing firewalls, intrusion detection systems, and secure access controls.
- **Endpoint Security:** Ensuring all devices, including computers, mobile devices, and IoT devices, are secured with antivirus software and regular updates.
- **Access Control & Authentication:** Enforcing strong passwords, multi-factor authentication (MFA), and role-based access controls (RBAC).
- **Data Encryption:** Encrypting sensitive data in transit and at rest to prevent unauthorized access.

- **Security Awareness Training:** Educating employees and users on best practices, such as recognizing phishing attempts and using secure connections.

2. Detect: Identifying Threats in Real-Time

Despite robust protective measures, cyber threats continue to evolve, making detection a critical component of cybersecurity.

Detection Mechanisms:

- **Security Information and Event Management (SIEM):** Collects and analyzes security data from various sources to detect anomalies.
- **Intrusion Detection Systems (IDS) & Intrusion Prevention Systems (IPS):** Monitors network traffic for suspicious activities.
- **Behavioral Analytics:** Uses AI and machine learning to identify unusual patterns that may indicate a cyberattack.
- **Regular Audits and Penetration Testing:** Periodic security assessments help uncover potential vulnerabilities before they can be exploited.
- **Threat Intelligence:** Leveraging real-time threat intelligence feeds to stay ahead of emerging cyber threats.

3. Respond: Mitigating and Recovering from Cyber Incidents

Even with strong protection and detection mechanisms in place, cyber incidents may still occur. A well-prepared response plan is essential to minimize damage and restore normal operations.

Response Strategies:

- **Incident Response Plan (IRP):** A predefined strategy outlining roles, responsibilities, and actions to be taken during a security breach.
- **Containment and Eradication:** Isolating affected systems, removing malicious code, and applying patches.
- **Forensic Analysis:** Investigating the attack to determine the root cause, attack vector, and impact.
- **Communication & Reporting:** Notifying stakeholders, regulatory authorities, and affected parties as per compliance requirements.
- **Post-Incident Review:** Documenting lessons learned and improving security posture based on incident analysis.

Outcome:

By the end of the workshop, participants gained:

- A foundational understanding of cyber security.

- How to reduce the risk of data breaches and ensuring the integrity, confidentiality, and availability of digital assets.

No. Of Participants: 52

Winners (if any, for activities conducted): NA

Guest Details:

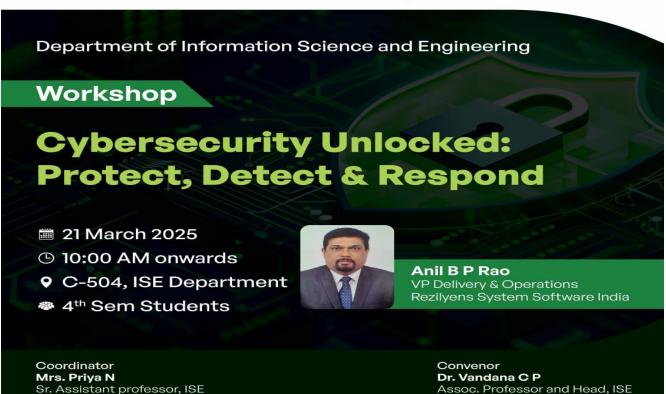Anil B P Rao, V.P. Delivery & Operations| Customer Success, Rezilyens system software India Pvt Ltd, Bangalore.

The brochure of the event :

GLIMPSES OF THE EVENT

Faculty Coordinator   **HOD-ISE**

Priya N   **Dr.Vandana.C.P**