

**A Report on One Day Guest Lecture on
“Security Challenges in Wireless Communication: Threats and Countermeasures”
Organised by Department of Computer Science & Technology
On 01.02.2024(Thursday)**



Organized by: Mr. V. Naveen, Assistant Professor, Department of CST; Mr. D. Suresh, Assistant Professor, Department of CST
Submitted by: Mr. D. Suresh, Assistant Professor, Department of CST

Resource Person: Dr. Rajakumar Arul, Assistant Professor, School of Computer Science and Engineering (SCOPE), Vellore Institute of Technology, Chennai.

Participants: III CST Department Students.

Attendance: 67 participants (Internal)

Mode: Offline

Report Received on 17.02.2024

The Department of Computer Science & Technology has organized a One-Day Guest Lecture on “**Security Challenges in Wireless Communication: Threats and Countermeasures**” on 01.02.2024 (Thursday) at MIT from 10:00 AM to 12:00 PM.

Objective:

The primary objective of the guest lecture was to provide participants with insights into the various security threats faced by wireless communication networks and to explore effective countermeasures to mitigate these threats. Through expert presentations and interactive discussions, the lecture aimed to enhance participants understanding of wireless communication security and equip them with the knowledge and tools necessary to address emerging security challenges.

Welcome Address:

The event commenced promptly at 10:00 AM with a warm and engaging welcome address to all the audience by the **Mr. D. Suresh, Assistant Professor, Department of CST, Madanapalle Institute of Technology and Science (MITS), Madanapalle.** In his address, he highlighted the various security challenges posed by wireless communication networks and discuss effective countermeasures to mitigate these threats.

Following the welcome address, Resource Person: **Dr. Rajakumar Arul** took the stage to deliver an enlightening lecture on “**Security Challenges in Wireless Communication: Threats and Countermeasures**”.

He started the session by extending his hearty thanks to the participants, organizing members, HoD, Principal and Management of Madanapalle Institute of Technology and Science (MITS), Madanapalle for giving opportunity to share his knowledge and experience in “**Security Challenges in Wireless Communication: Threats and Countermeasures**”.

The resource person delivered lecture on the following topics:

Understanding Security Threats in Wireless Communication:

Dr. Rajakumar Arul elucidated the various security threats prevalent in wireless communication networks, including eavesdropping, data interception, spoofing, jamming, and unauthorized access. He emphasized the importance of implementing robust security measures to safeguard sensitive information transmitted over wireless channels.



Exploring Countermeasures for Wireless Communication Security:

The lecture delved into effective countermeasures to mitigate security threats in wireless communication networks. He discussed encryption techniques, authentication protocols, intrusion detection systems, and access control mechanisms as essential tools for enhancing the security posture of wireless networks.

Assessing the Impact of Emerging Technologies:

He highlighted the impact of emerging technologies such as 5G, Internet of Things (IoT), and edge computing on wireless communication security. He underscored the need for adapting security strategies to address the evolving threat landscape posed by these technologies.

Identifying Best Practices and Recommendations:

The lecture concluded with a discussion on best practices and recommendations for securing wireless communication networks. He emphasized the importance of regular security audits, employee training programs, and collaboration with industry experts to mitigate security risks effectively.

Vote of Thanks:

At 12:00 PM, the guest lecture formally concluded with a vote of thanks delivered by **Mr. V. Naveen, Assistant Professor, Department of CST**. In his address, he expressed sincere gratitude to resource person for taking the time to share their expertise on security challenges in wireless communication networks.



Outcomes:

At the end of the guest lecture, participants gained insights into

- Interpret various attacks like malware attacks, phishing schemes, and the potential for device theft.
- Understanding the various security threats prevalent in wireless communication networks.
- Exploring effective countermeasures to mitigate security threats in wireless communication.
- Assessing the impact of emerging technologies on wireless communication security.
- Identifying best practices and recommendations for securing wireless communication networks effectively.