

DATE: 03/09/2021

Event Coordinators:

- 1 Sushama Khanvilkar
2. Nilambari Narkar

Date & Place:

Online using Google Meet

03rd September 2021

Xavier Institute of
Engineering

Department:

Computer Engineering

No of participant:

36

An online guest lecture was organized for B.E. (COMPS, IT & EXTC) students on the topic “*DDoS Attack in Wireless Sensor Network*” and it was delivered by **Dr. Pranav Pawar** who works as an **Asst. Professor, BITS-Pilani, Dubai Campus**.

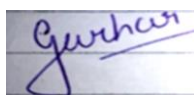
The guest lecture was conducted using Google meet on 03rd September 2021 and was organized by Ms. Sushama Khanvilkar and Ms. Nilambari Narkar from Computer Engineering Department.

Total 36 students attended the guest lecture and the objective of the guest lecture was to provide an insight to the final year students about new trends of attacks in cyberspace and help them to understand importance of cyber security & laws.

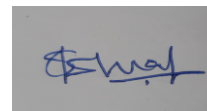
The speaker shared his views on ‘Introduction to wireless sensor network, security aspects in wireless sensor network, DDoS attack in wireless sensor network and variation of DDoS attack in wireless sensor network’. He emphasized on new DDoS attack developed for experimentation purpose.

The students were quite astonished by various DDoS attack on wireless sensor network. Overall, the session was interesting and motivating for students to study cyber security & laws.

Student Feedback and Benefits: The students found the session very informative, helpful and excellent. It was a knowledge gaining session about cyber-attacks.



Ms. Nilambari Narkar
Lecturer
COMP Dept.



Ms. Sushama Khanvilkar
Assistant Professor
COMP Dept.



Dr. Saurabh Patil
HOD

Images of the guest lecture

REC Dr. Pranav Pawar is presenting

Introduction

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Wireless Sensor Network → Smart Applications for Sustainable Human Environment → Industrial and Business Applications, Home, City, Vehicle, and Weather Monitoring, Healthcare Applications, Military Applications, Agricultural Applications

9:04 AM | dm-egy-qju

REC Dr. Pranav Pawar is presenting

Why Security is important?

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- Battlefield
- Disasters
 - Protect the location and status of casualties from unauthorized disclosure, particularly if the disaster relates to ongoing terrorist activities
- Public safety
 - False alarms about chemical, biological, or environmental threats could cause panic or disregard for warning systems. An attack on the system's availability could precede a real attack on the protected resource
- Home healthcare
 - Because protecting privacy is paramount, only authorized users can query or monitor the network. These networks can also form critical pieces of an accident-notification chain, thus they must be protected from failure.

9:08 AM | dm-egy-qju

REC Dr. Pranav Pawar is presenting

Denial of Service in WSN

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Protocol layer	Attacks	Defenses
Physical	Jamming	Detect and sleep Route around jammed regions
	Node tampering or destruction	Hide or camouflage nodes Tamper-proof packaging
Link/MAC (medium access control)	Interrogation	Authentication and anti-jamming protection
	Denial of sleep	Detect and sleep Broadcast attack protection
Network	Speeding, replaying, or altering routing-control traffic or clustering messages	Authentication and anti-jamming protection Secure cluster formation
	Hello floods	Neighbor authentication Geographic routing
Transport	SYN (synchronization) flood	SYN cookies
	Denysynchronization attack	Packet authentication
Application	Overwhelming sensors	Sender filtering Data aggregation
	Path-based DoS	Authentication and anti-jamming protection Authentication domains
	Denial (msg-priming) attack	

9:14 AM | dm-egy-qju

REC Dr. Pranav Pawar is presenting

Collision Attack

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9:22 AM | dm-egy-qju

REC

10:00 AM | dm-egy-qju