



## Faculty Development Program



**VIT**<sup>®</sup>  
Vellore Institute of Technology  
(Deemed to be University under section 3 of UGC Act, 1956)

### Discussion Points

**Title :** IOT Security Threads and Mitigations

**Date :** 01-Apr-2024 - 05-Apr-2024

**Time :** 10:00 - 17:30

**Venue :** CENTRAL LIBRARY - VIDEO  
CONFERENCING HALL

- Embedded System and its Structure
- Overview of IoT Ecosystem
- Role of Sensors in IoT
- Communication Devices and its Protocol
- Cyber Security Introduction
- Network Protocols
- Working and principle of sensors
- IoT IDE and its functions
- Cyber Security IDE and its functions
- Hackathon in Cyber Security , Q&A
- Introduction to Cyber Security & Kali Linux
- Eavesdropping & MITM Attack
- Ethical Hacking
- OSINT & Google Dorking
- Social Engineering, Cryptography & Steganography

	<p><b>Resource Person 1 - Details</b>  <b>Name :</b> Anil Kumar K  <b>Designation :</b> Associate Professor Sr., School of Computer Science and Engineering  <b>University/ Company :</b> VIT, Vellore  <b>Address :</b> India, 632014.</p>
	<p><b>Resource Person 2 - Details</b>  <b>Name :</b> Aju D  <b>Designation :</b> Associate Professor Grade 2, School of Computer Science and Engineering  <b>University/ Company :</b> VIT, Vellore  <b>Address :</b> India, 632014.</p>
	<p><b>Resource Person 3 - Details</b>  <b>Name :</b> Dr Balasubramanian P  <b>Designation :</b> Assistant Professor, Indian Institute of Information Technology Kottayam  <b>University/ Company :</b> Indian Institute of Information Technology, Kottayam  <b>Address :</b> India, 686635.</p>
	<p><b>Resource Person 4 - Details</b>  <b>Name :</b> Dr SREE RANJANI R  <b>Designation :</b> Assistant Professor, Florida Atlantic University  <b>University/ Company :</b> Florida Atlantic University, Florida  <b>Address :</b> USA, 33431.</p>
	<p><b>Resource Person 5 - Details</b>  <b>Name :</b> Ms Harshitha Vijaya Kumar  <b>Designation :</b> Security Analyst, Cyber Sapiens  <b>University/ Company :</b> Cyber Sapiens, Bangalore  <b>Address :</b> India, 575003.</p>
	<p><b>Resource Person 6 - Details</b>  <b>Name :</b> Mr Avinash Kumar  <b>Designation :</b> Offensive Security Lead, Right Turn Security  <b>University/ Company :</b> Right Turn Security, Greater Noida  <b>Address :</b> India, 110033.</p>
	<p><b>Resource Person 7 - Details</b>  <b>Name :</b> Dr Vikramkumar Pudi  <b>Designation :</b> Assistant Professor, Computer Science and Engineering  <b>University/ Company :</b> Indian Institute of Technology , Tirupati  <b>Address :</b> India, 517619.</p>
	<p><b>Resource Person 8 - Details</b>  <b>Name :</b> Shobha Rekh  <b>Designation :</b> Professor Grade 1, School of Computer Science and Engineering  <b>University/ Company :</b> VIT, Vellore  <b>Address :</b> India, 632014.</p>

**Resource Person 9 - Details****Name :** Saritha Murali**Designation :** Assistant Professor Sr. Grade 1, School of Computer Science and Engineering**University/ Company :** VIT, Vellore**Address :** India, 632014.

## **Resource Person's Profile :**

### **1. Profile of Anil Kumar K**

Dr. Kakelli Anil Kumar is an Associate Professor Sr. with the SCOPE at the Vellore Institute of Technology (VIT) in Vellore, TN, India. In 2017, he got his Ph.D. in Computer Science and Engineering from Jawaharlal Nehru Technological University (JNTUH), Hyderabad. His current research includes Cybersecurity, Internet of Things (IoT), Malware analysis, Blockchain, and Bitcoin. He has written more than 50 research papers. He has completed three consulting projects for Samsung PRISM.

### **2. Profile of Aju D**

Dr. Aju. D received his PhD. in Computer Science and Engineering from Vellore Institute of Technology, Vellore. He has published more than 60 research articles in different reputed international peer-reviewed journals. His research area of interest includes Digital Image Processing, Medical Imaging, Computer Graphics, Cyber Security and Digital Forensics.

### **3. Profile of Dr Balasubramanian P**

He holds a unique teaching philosophy developed over the 6 years in various Engineering colleges and National importance institutes (IIIT, Tiruchirappalli) and 6 years of research experience at NIT, Tiruchirappalli. At present, he is working as Assistant Professor, CSE Department at IIIT-Kottayam, Kerala. He has published more than 20 Journals.

### **4. Profile of Dr SREE RANJANI R**

Sree Ranjani Rajendran is currently working as an Assistant Professor in the Department of Electrical Engineering and Computer Science at Florida Atlantic University, Boca Raton, Florida. She authored 40 research articles published in refereed conference proceedings, renowned journal publications, and book chapters. Her research has been awarded in the IEEE Young Women Research Grant Award, the 28th IEEE Asian Test Symposium (ATS), 2019, and 2023.

### **5. Profile of Ms Harshitha Vijaya Kumar**

Experienced Cybersecurity Analyst and Forensics graduate with a comprehensive background in digital security. I carry two years of hands-on experience, where I've honed my skills in proactive threat detection, incident response, and implementing robust security measures. She is Expert in Specialized in Cloud Security and worked in designing course modules for cloud testing, adept at tailoring content to cater to both beginners and advanced learners.

### **6. Profile of Mr Avinash Kumar**

Currently working as Offensive Security Lead at Right Turn Security and Trainer and Mentor NASSCOM EIA (Training company Professionals from Cyber Domain). He has published research 22 articles in various reputed journals like IEEE, Springer and, CRC Press, Taylor and Francis Group, USA. He was associated with Shainyam Rakshtam (Indian Army) hackathon event where he has trained them on Secure Coding where Zero-Day attack. Currently trained Assam Police Officials on Dark Web Investigation.

### **7. Profile of Dr Vikramkumar Pudi**

Dr. Vikramkumar Pudi received Ph.D. from Indian Institute of Technology Madras in 2014. During his PhD., he received best teaching assistant award. He was a postdoctoral fellow with the Microsystems and Nanotechnology group at the University of British Columbia, Canada in 2014 to 2015. He is currently an Professor at Indian Institute of Technology Tirupati. His research work is published in more than twenty five international journals. His research areas are cyber security and cryptography.

### **8. Profile of Shobha Rekh**

Dr. A. Shobha Rekh has completed Ph.D in Information and Communication Engineering, 2008, Anna University, TamilNadu,India. She is having more than 25 years of experience in Teaching. She has published more than 25 journals in SCI and SCOPUS. she has also published 2 books and 2 patents. she has also Completed various consultancy project .

### **9. Profile of Saritha Murali**

Saritha Murali received Bachelor of Technology in Computer Science and Engineering from L.B.S College of Engineering, Kerala in 2009. She completed Master of Technology in Computer Science (Information Security) from National Institute of Technology, Calicut in 2012. She was awarded Ph.D from the Department of Computer Science and Engineering, National Institute of Technology, Calicut in 2021. She has 8 publications in SCI and Scopus indexing.

The Internet of Things (IoT) is a rapidly growing network of physical objects that are embedded with sensors, software, and other technologies for the purpose of connecting and exchanging data. IoT has the potential to revolutionize many industries, but it also introduces new security risks. This FDP will discuss the latest IoT security issues and mitigation Strategies and also learn few real time projects.

Burpsuite

ZAP

Nessus

SIEM Tool

Maltego

NMAP

Wireshark

**Coordinator's: Prof. PRABIN S M 18808 - Assistant Professor Sr. Grade 1 - SCOPE  
Prof. AJITHA D 18802 - Associate Professor Grade 1 - SCOPE**