

"Internet-of-Things: Industry, Academia, and Start-ups

From December 21, 2020 to December 23, 2020

Over View:

In this workshop, we will analyse various aspects of Internet-of-Things (IoT). This includes communication, signal processing, and machine learning tools for IoT. IoT use cases like Healthcare applications and Drone-based sensing will be studied in detail. Leading IoT Standards like NBLoT, Sigfox and LORA will be discussed. Role of Artificial Intelligence, current network's readiness and resource allocation techniques for IoT will be analysed

Modules:

The workshop considered sessions in the following topics:

- Plenary Talk
- Communications for IoT
- A conservative view of IoT
- Machine Learning & Signal Processing for IoT
- IoT for Healthcare Applications
- Standards about NBLoT
- Drone-based Sensing
- Role of Artificial Intelligence in IoT
- Resource allocation techniques for IoT
- Standards on Sigfox and LORA
- Is the Network ready for IoT?
- Feedback Collection and Conclusion

You Should Attend If....

This course is designed for primarily for Faculty. A significant number of IoT technologies were discussed

Fees:

For TEQIP Participants its free of cost.

Abhinav

About Speakers:



Prof. U B Desai was the Founding Director of IIT Hyderabad from June 2009 to June 2019. For nearly five years he served as the mentor Director for IIIT Chittoor, Sri City. He was also mentor Director for IIT Bhilai during its initial setting up phase. At present he is Prof. Emeritus at IIT Hyderabad. He is also Honorary Professor Woosong University, South Korea.



Dr. Sachin Chaudhary has worked at Esqube Communications, Bangalore which was a start-up by IISc Professors, as a Senior Wireless Communications Engineer. He did PhD with Prof. Visa Koivunen at Department of Signal Processing and Acoustics, Aalto University. Between 2013-2014, I was a post-doctoral researcher at Aalto University. Since December 2014, I am working as an Assistant Professor at IIIT-Hyderabad.



Dr. Prasant Misra Prasant's work is centered around building intelligent systems, which can extend human and machine capabilities with newer and better ways of interacting with the physical world. His experience spans across various aspects of mobile sensing and computing in cyber physical systems. His current research focus is on decision science and control for applications in smart mobility.



Dr. Amit Acharyya VLSI systems for resource-constrained applications, Low Power Design Techniques, Machine learning hardware design, Edge Computing, Healthcare Technology and chip-design targeting remote health monitoring including cardio-vascular diseases, Diabetes, Autism Spectrum Disorder, Neurological disorder, Orthopaedically handicapped patients, Accelerating Cancer diagnostic procedures through hardware-software co-design, Signal Processing Algorithm and VLSI Architectures, Digital Arithmetic, Hardware Security.



Dr. Sai Dhiraj is a researcher interested in design and analysis of wireless communication systems. Currently, He is a Principal Research Engineer with WiSig Networks at IIT Hyderabad, where he is involved with algorithm design and development for 4G and 5G. He is also an Adjunct Assistant Professor, at IIT Hyderabad.



Dr. Amit Saha is a Principal Engineer in Cisco Systems India, Bangalore (Bengaluru). His research and development background is in networks and distributed systems. Before Cisco, he has worked at Tropos Networks (acquired by ABB), from 2007 to 2009, building an outdoor WiFi mesh network and then at Juniper Networks, from 2009 to 2014, designing and implementing multiple data center switching



Prof. Rajalakshmi P. is a Professor in the Department of Electrical Engineering at IITH. Her research interests are in the Wireless communications, Wireless sensor networks, UAV-based sensing, Embedded systems, Cyber Physical Systems/Internet of Things (CPS/IoT), Converged network modelling, Energy efficiency, Green communications.



Dr. Abhinav Kumar received the BTech, MTech, and PhD degree in Electrical Engineering from the Indian Institute of Technology Delhi, in 2009 and 2013, respectively. He is an Associate Professor in the Department of Electrical Engineering, IIT Hyderabad. His research interests are in the different aspects of Wireless Communications and Networking.

Abhinav

Course Co-ordinator

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