

**TEQIP - III Sponsored  
Three Day Workshop on  
Wireless Networks for Smart  
city applications  
15<sup>th</sup> - 17<sup>th</sup> March 2018**

**Organized by  
Department of ECE,  
PSG College of Technology,  
Coimbatore - 641 004**

**APPLICATION FORM**

Name (in Block Letters) .....

Age & Gender .....

Designation .....

Organization .....

Address for .....

Communication .....

Contact No .....

Accommodation Required(Y/N) .....

Course Fee .....

Demand Draft No.& Bank : .....

DD Date .....

**DECLARATION BY THE CANDIDATE**

The given information is true to the best of my knowledge. I agree to abide by the rules and regulations governing the programme. If selected, I shall attend the course for the entire duration.

Place :  
Date :

Signature of the candidate

**Important Dates**

Last date for the receipt of application  
with DD : 12<sup>th</sup> March. 2018  
Date of Intimation regarding Selection : 14<sup>th</sup> March 2018

The details of this programme are available in the website  
[www.psgtech.edu](http://www.psgtech.edu)

**Eligibility**

This workshop is open to all Engineering (UG/PG)  
students, research scholars, faculty and Industry members.

**Registration**

Only limited number of participants can be admitted to  
the workshop. The admission is on first come first serve  
basis. Filled up registration form is to be submitted along  
with the DD drawn in favor of "PSG CNCE" payable at  
Coimbatore.

**Registration Fee** : Rs. 1000/-  
(Inclusive of GST)

**The duly filled application forms are to be sent to :**

**Dr.R.Venkateswari**

Associate Professor,  
Department of Electronics & Communication Engineering,  
PSG College of Technology,  
Peelamedu  
Coimbatore - 641004  
TamilNadu  
Email :rvi.ece@psgtech.ac.in Ph: 9894667672

**TEQIP**

**TEQIP - III Sponsored  
Three Day Workshop on**

**Wireless Networks for  
Smart city applications**

**15<sup>th</sup> - 17<sup>th</sup> March 2018**



**Coordinators**

**Dr. R.Venkateswari  
Dr.R.K.Mugelan  
Mr.N.Saritakumar  
Dr. S. Mohandass**



## Resource persons

Engineers working in the area of wireless networks and smartcity applications, from Netsim, Bangalore and Enthru technology Solutions India Pvt Ltd. will deliver the guest lectures and provide hands-on experience during the training sessions.

## About the Workshop

The objective of this workshop is to train the users about the latest technologies in Networking & wireless communication and discover how simulation / Emulation tool like NetSim enables users to perform simulation tasks such as network modeling, performance analysis and R&D by writing their own protocols /algorithm for smart city applications.

Users can learn

- Theoretical aspects of MANET, VANET, Wireless Sensor Networks, CRN, LTE and LTE-Adv
- Simulation tool NetSim and perform simulation of the specified networks
- Modifying the Protocols and analyze the network performance
- Theoretical aspects of Low power WAN
- Hands on experience in typical application of smart city

## Pre-requisite

- Basic understanding of computer networks
- Programming knowledge in C

## Agenda

<u>Time</u>	<u>Day1 - Description</u>
9:00 am - 12.30 pm	Introduction
	Wireless networks for Smart city applications- Overview
	Simulation of Basic Network scenarios
	Analysis of performance metrics and Packet Animation (Hands-on)
12:30 - 1:30 pm	LUNCH
1:30 pm - 5:00 pm	Analysis of Results & NetSim Code Modification
	Understanding Trace files, Pivot Table and graphing through Dynamic Metrics
	Packet Capture and analysis with WireShark
	Writing your own code in NetSim (Hands-on)

<u>Time</u>	<u>Day2 - Description</u>
9:00 am - 12:30 pm	MANET, WSN & Cognitive Radio networks
	Analysis of MANET, WSN and CRN networks (Hands-on)
	Sinkhole Attack, Low energy clustering in WSN
	MATLAB Interface - Interfacing MATLAB with NetSim for WSN
12:30 - 1:30 pm	LUNCH
1:30 pm - 5:00 pm	LTE/LTEA & Sample Projects
	Analysis of LTE/LTEA, LTE(D2D) & LTE Femto Cell networks
	IOT R & D- RPL DODAG Visualization

<u>Time</u>	<u>Day3 - Description</u>
9:00 am - 12:30 pm	Introduction - WSN
	Hands On : MQTT based WSN application
	Discussion : Importance of WSN for Smart City Applications
12:30 pm - 1:30 pm	LUNCH
1:30 pm - 5:00 pm	DIY : Smart City application prototype
	Introduction : LoRA
	Demo : LoRA based Air Quality Monitoring in Smart City