

ABOUT THE INSTITUTE

Anna University was established on 4th September 1978 as a unitary type of university. It offers higher education in Engineering, Technology and allied sciences relevant to the current and projected needs of the society. Besides promoting research and disseminating knowledge gained there from, it fosters co-operation between the academic and industrial communities. Now it is an affiliating type university and is a member of Association of Indian Universities, the Association of Commonwealth Universities and partner of UNESCO International Center for Engineering Education (UCEE)

About the Department

The Department of Electronics and Communications (DECE), which became a part of this celebrated institution in the year 1945, is one of the leaders in India in this field of technology. Keeping in line with fast changing technology, the department has a well designed, constantly reviewed syllabus to incorporate all advancements in existing and emerging technologies.

About the Workshop

5G is the fifth generation wireless technology for digital cellular networks that began wide deployment in 2019. The frequency spectrum of 5G is divided into millimeter waves, mid-band and low-band. 5G millimeter wave is the fastest, with actual speeds often being 1–2 Gb/s. 5G mid-band is the most widely deployed, in over 20 networks. Speeds in a 100 MHz wide band are usually 100–

400 Mb/s. 5G low-band offers similar capacity to advanced 4G. The Telecom Regulatory Authority of India (TRAI) has issued, white paper press statement stating that 5G is set to transform communication networks and will bring massive growth in Indian economy by 2021. TRAI has also ordered telecom companies to identify specific use causes for 5G launch.¹

Why is there a need for 5G?

- Lower battery consumption.
- Multiple concurrent data transfer paths.
- Lower outage probability; better coverage and high data rates available at cell edge.
- 1Gbps (and higher) data rate in mobility.
- More secure; better cognitive ratio/Software-Defined Radio (SDR).
- Higher system level spectral efficiency.
- Not harmful to human health.
- Wearable devices with Artificial Intelligent (AI) capabilities.
- Cheaper traffic fees due to low infrastructure deployment costs.
- Smart beam antenna systems.



Workshop On Research Challenges in 5G Wireless Communications

14th - 15th February 2020



Coordinator
Dr.M.A.Bhagyaveni, Prof.
Co-coordinator
Dr.D Sridharan, Prof.

Organized by
Center for Faculty Development
and
Department of ECE
College of Engineering Guindy,
Anna University, Chennai 25
<http://www.annauniv.edu>

Sponsored by
UGC XII Plan

Who Should Attend?

Faculty members registered for PhD program in Anna University alone are eligible.

Registration fee

Faculty : Nil

Important Dates

Date of the workshop: 14.2.2020 and 15.2.2020

Last date for submission of

Registration Form :05.2.2020

Intimation of selection via e-mail:07.02.2020

Confirmation by participants :10.02.2020

ABOUT THE REGISTRATION

- Number of seats is restricted to 30.
- Selection on first come first serve basis.
- Selected candidates will be intimated by e-mail.
- Confirmation of participation is to be made by email.
- No accommodation will be provided.**

Registration:

Apply through the link:

<https://drive.google.com/open?id=1UxLgrM41KOnolVXhISzAhyDmXclQSGKCXg3pd9spK98>

Scan



For further details, contact:

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TENTATIVE TOPICS TO BE COVERED

- Introduction to 5G Wireless Communication
- Orthogonal & Non Orthogonal Multiple Access
- 5G Waveforms
- Cognitive Radio Communication
- Spatial MIMO Concepts
- mm-Wave Communication
- Hands on session using GNU radio and USRP
- Hands on session Using Matlab and WARP

RESOURCE PERSONS

- Faculty from IITM, IIITDM, Anna University and Industries.

Venue

Department of ECE,
College of Engineering Guindy,
Anna University .Chennai.