

Salient Aspects:

The programme enables a solid foundation to individuals seeking a career in signal processing, baseband and bandpass communication signal design and processing, RF circuit design, electromagnetics, radiation systems, wireless and optical media challenges for transmission and networking, high frequency system design and control systems presented in the context of real word applications through developing a varied scope of theoretical and practical skills and design experience.

Fellowships:

GATE; ACRF; AICTE QIP; Visvesvaraya PhD Scheme

Projects Undertaken:

Title of the Project	Funding Agency	Grant in Rs	No. of Faculty Involved	Status
Identification of Communication Systems for Situation Awareness Unit.	CVRDE, AVADI	9.95 L	4	Completed
Design of Pseudo Random Code Based systems for Ranging and Data Communications	DRDO, Hyderabad	5.00 L	3	Completed
Spread Spectrum for Wireless Communication	DRDO	9.9 L	3	Completed
Wireless Body Area Networks for Tele-medical Application	UGC-SAP DRS Level1	60 L	2	Completed
Implementation of Resource Utilization Techniques for Multiuser MIMO System	DST	9 L	1	Completed
Optical design of Refractor for Array Antennas	DST	6.8 L	3	Completed
Interference Cancellation in MIMO Cognitive Networks	CTDT – Anna Univ.	0.5 L	1	Completed
Realization of MEMS tunable Fabry Perot Filter for IR imaging	SERB	31.7 L	1	Ongoing



M.E. COMMUNICATION SYSTEMS



VISION

The Department of ECE shall strive continuously to create highly motivated, technologically competent engineers, be a benchmark and a trend setter in Electronics and Communication Engineering by imparting quality education with interwoven input from academic institutions, research organizations, industries keeping in phase with rapidly changing technologies, imbibing ethical values.

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**<http://www.annauniv.edu>
http://www.annauniv.edu/dece/academics/me_comm_sys**



Research Areas:

- Antenna Design, Optimization and Validation
- Channel Equalization
- Cognitive Radio Communication
- Cross-Layer Design
- Enabling Technologies for Future Wireless Communication
- Fiber Optic Communications - Backhaul and Backbone
- Green Wireless Communication
- Microwave Components Design, Fabrication and Testing
- Radio Over Fiber Technologies
- RF System Modeling and Optimisation
- Wireless Body Area Networks
- Wireless Network Security
- Wireless Sensor Network Design and Validation

Faculty associated with the above Research Areas:

- Dr. MEENAKSHI M
- Dr. MALATHI K
- Dr. SRIDHARAN D
- Dr. BHAGYAVENI M A
- Dr. LAXMIKANDAN T
- Dr. GUNASEELAN K
- Dr. MANIMEKALAI T
- Mrs. PUSHPALATHA V
- Dr. SHANMUGAPRIYA M
- Dr. SITTALATCHOUMY R
- Dr. SEETHARAMAN R

Professor-in-Charge:

Dr. T. LAXMIKANDAN

Facilities:

- 300 kHz to 20 GHz ENA Series Vector Network Analyzer
- 3 GHz Vector Network Analyzer
- 3 GHz Spectrum Analyzer
- 3 GHz RF Signal Generator
- 3 GHz Vector Signal Generator
- 1 GHz Storage Oscilloscopes
- 100 MHz Mixed Signal Oscilloscopes
- 5 MHz Arbitrary Waveform Generator
- Pulse Generator upto 4 ns
- RF Transmitter Receiver Modules
- WiCOMM-T SDR with Baseband, IF and RF Modules
- WARP Platforms with Multiple Radio Boards and Interfaces
- 4 Channel WDM Module with Single Channel Demux Module
- Fiber Optic Test Bench with WDM, FBG and EDFA
- Holographic Grating based Optical Spectrum Analyzer
- Multi-Wavelength Optical Time Domain Reflectometer
- Fiber Fusion Splicer
- ADS Simulation Package
- CST Simulation Package
- QUALNET Simulation Tool
- VPI Simulation Package

