











# DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING CONSULTANCY BROCHURE

#### **ABOUT THE DEPARTMENT**

The department of Electronics and communication engineering was started in the year 1998, which was accredited by National Board of Accreditation, AICTE, New Delhi and ISO 9001:2001 certified through Moody International. Right from its inception, the department has been laying emphasis on teaching and research activities in diverse areas in electronics and communication engineering and bio medical engineering, thereby moulding our students to be critical thinkers, skilled communicators and ethical leaders. The department offers undergraduate, post graduate and Ph.D. programs that provide students with the knowledge and tools to meet the growing technological demands. The Faculty Members are well qualified with inherent experience in both teaching and research. Our ECE department has well equipped laboratories coupled with extensive practical work which ensures the students receive a well-rounded education.

#### VISION

The department imparts technical stuff to produce sterling students with global competency and mould them for industry, research and academia expectations. The department aims to cater the students to learn, innovate, design and develop socio-economic, eco-friendly products to meet the growing technological demands.

#### **MISSION**

To educate the students about the technical and ethical knowledge and make them to understand the growing challenges of the industry and leading them to real-world research.

To create the infrastructure for collaborative research through constant interaction with research organizations and industry.

# DRDO-SAG sponsored Hardware-Security Research Facility

- Nexys 4 DDR Artix-7 FPGA Trainer Boards
- Xilinx Vivado Systems Edition
- Intel® Core i5-8400 [8th Generation processor (9MB Cache, up to 4.0 GHz), 8GB RAM, 2 TB HDD, 22 "Monitor
- Laser Printers
- Spartan 7 board













## Intel-FICE IOT Research Facility

This centre is established in AVIT with the collaboration with INTEL-FICE. This lab is equipped with Arduino microcontroller boards, different kinds of sensor with high end computers

# Inter-Institutional collaborative project

S. No	Name of the Project	Collaboration with Institutes
1.	Alarm Pillow(Wired)	Aarupadai Veedu Medical College, Puducherry
2.	Alarm Pillow (Wireless)	Aarupadai Veedu Medical College, Puducherry
3.	Smart Home System	Aarupadai Veedu Medical College, for Physically challenged Puducherry
4.	Bio Amplifier	Aarupadai Veedu Medical College, Puducherry

#### INDUSTRIAL INTERACTION

- SETS Lab, Taramani
- GCAR, Kalpakkam
- CSIR-CEERI, Chennai
- Salcomp
- RTTC, Chennai
- Biovision, Chennai

- DRDO-SAG
- CVRDE, Chennai
- HITACHI, Japanese Township, Paiyanoor
- AGADA Hospital, Chennai
- Perfint Healthcare, Chennai
- Global Hospital, Chennai
- AarupadaiVeedu Medical College and Hospitals, Pondicherry

### **CONSULTANCY PROJECTS WITH INDUSTRY**

SL.NO	PROJECT TITLE	ACADEMIC YEAR	INDUSTRY
1	"Embedded Systems"	2017-2018	Ohmtronixs,
2	"Advanced Communication Systems"	2018-2019	Ohmtronixs,
3	"Prediction of Lung cancer using Machine learning Models"	2018-2019	ABE Semiconductor Designs
4	"Solar and Wind Energy Generator Training System"	2019-2020	Ohmtronixs,

#### **FACULTY DETAILS**

NAME OF THE FACULTY	AREA OF SPECIALIZATION
Dr.L.K.Hema	Wireless Sensor Network,IoT, Hardware Security
Dr.D.VijendraBabu	Image & Signal Processing, Wearable Devices
Mr.R.Karthikeyan	Renewable Energy
Mrs.R.Mohana Priya	Image & Signal Processing
Mr.J.Vijay	Renewable Energy
Mr.Rajat Kumar Dwibedi	VLSI
Mrs.V.Vanitha	Wireless Communication and Antenna Design

## **Infrastructure Facility**







ADVANCED COMMUNICATION LAB

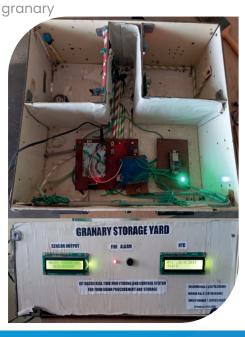
# CENTRE OF EXCELLENCE IN ROBOTICS AND EMBEDDED SYSTEMS LAB IN ASSOCIATION WITH "E-YANTRA LAB SETUP INITIATIVE (E-LSI)" IIT BOMBAY

The Centre of Excellence in Robotics and Embedded Systems Lab is developed in association with "e-Yantra Lab Setup Initiative (e-LSI)", IIT Bombay, to establish a culture of "Project Based Learning". This Lab comprises of major equipment for designing/prototyping many robots/automated embedded models using Raspberry Pi, ATmega2560, LPC2148, P89V51RD2 development boards.

#### PRODUCTS DEVELOPED

#### IOT Based Real Time Monitoring & Control System for Food Grain Procurement and Storage

Acquire data from different sensors and transmit this data wirelessly the Server through internet connectivity in order to access the status of



# Smart Manhole Toxic Gas Identification and Alerting System

Sprinkler mechanism is provided with the resource chemical for detoxification treatment for reduction of toxic gases concentration.



#### **Hardware Security Research Lab**

Department of Electronics and Communication Engineering Contact person: **Dr. L. K. HEMA,** Professor & HOD Mobile no.: +91-9840655279 | e-mail: hemalk@avit.ac.in