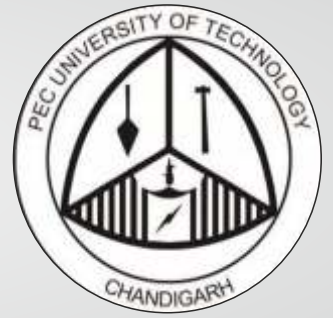# ELECTRONICS AND COMMUNICATION ENGINEERING

PEC UNIVERSITY OF TECHNOLOGY
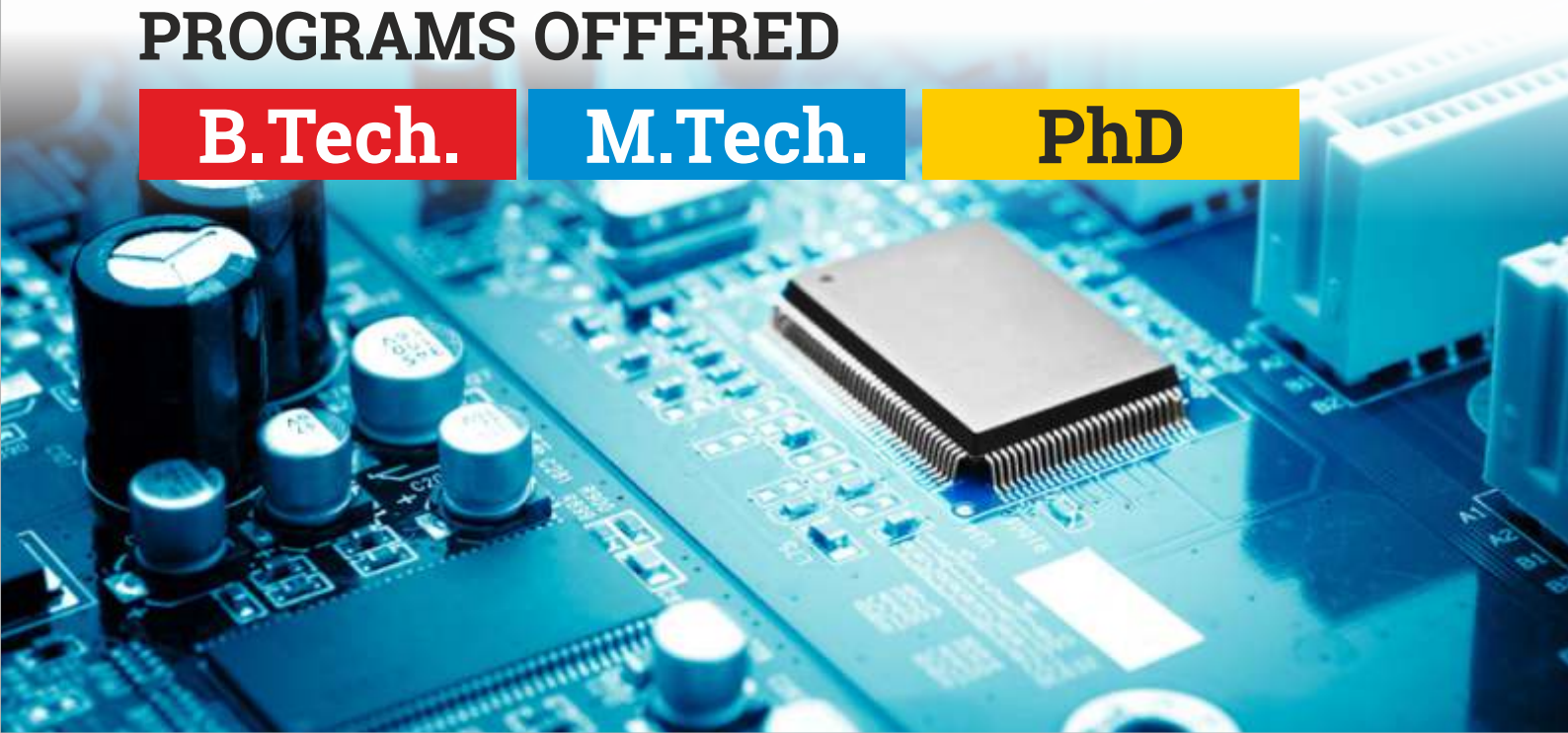
PLACEMENT BROCHURE'16

The Department of Electronics and Communication Engineering formerly known as Department of Electronics & Electrical Communication Engineering was established in the year 1963. The department has excellent research facilities in the core and emerging areas of Electronics and Communication like Embedded systems, VLSI Design, Photonics and Optical Communication, Wireless Communication, Microprocessors, Analog & Digital Signal Processing etc. The department has always strived to inculcate the very best in students so that they can face the challenges offered to them by the industry. The pre-eminence of the department can be understood by the ever increasing demand of its fresh graduates. Close interaction with the industry has led to evolution of a teaching system, which produces diligent and erudite engineers.

PROGRAMS OFFERED

B.Tech.   **M.Tech.**   **PhD**

COURSES OFFERED

- Digital Design
- Microprocessor And Application
- VLSI Design
- Analog Electronic Circuits-1& 2
- Computer Architecture
- Embedded System

- Communication Engg and System
- Data Communication
- Communication Theory
- Advanced Communication
- Digital Signal Processing
- Engineering Analysis & Design

- Signals And Systems
- Microwave And Radar
- Wireless Communication
- Audio Visual System & Mobile communication, fading
- Telecommunication system

- Biomedical Electronics
- Neural Networks
- E-Waste Management
- Electronic system design
- Opto Electronics
- Virtual Instrumentation

RESEARCH AREAS

Signal processing
Biomedical Signals
Digital Image Processing
Digital Signal Processing

Optical Communication
working in area of optical communication system design to transfer data optically

Photonic Systems
Working on photonic integrated circuit design for future on - chip multi processors

Wireless Communication & Networking
Working on wireless sensor network for industrial applications & planning to establish wireless network

Novel Nano Electronic Devices
Working on high electron mobility transition (HEMT) & Microelectro mechanical system (MEMS)
Advancing solar cells, nano diodes etc

Nano Interconnects & Nano antennas
Enhancing the application of meta material based antennas
Working on interconnects of different radio frequencies

INDUSTRIAL COLLABORATIONS

VIDEOCON TELECOM, MOHALI
- Videocon Telecom has collaborated with department & has setup an advanced communication lab for students.

RAMAN RESEARCH INSTITUTE, BANGALORE
- Raman Research Institute is in association with PEC for BE projects.

NUS SINGAPORE
- NUS Singapore collaborates with PEC for their facilities for fabrication.

INTEL INDIA
- Intel India has collaborated with department to setup labs for students.
- Embedded system design application projects.

INTERNSHIPS

INDUSTRY & RESEARCH INTERNSHIPS
- Amadeus Lab
- Alstom
- SanDisk
- JS Mobileon
- Texas Instruments
- Goldman Sachs
- Icuerious
- ST Micro
- Advance Tech.
- LexInnova
- Videocon
- Cadence
- Schneider Electric
- BHEL, Noida
- DRDO
- ISRO
- CSIO-CSIR
- GE India Industrial Pvt. Ltd.
- Larsen & Toubro Ltd.

FINANCE AND ANALYTICS
- Amazon
- JP Morgan
- Mckinsey
- Uber
- Amazon (Opr.)

INFRASTRUCTURE- LAB AND EQUIPMENT

PG RESEARCH LAB(VLSI DESIGN)
- CADENCE Analog Design Suite
- CADENCE Digital Design Suite
- TCAD Software
- PC i7 core based

BASIC ELECTRONICS
- Digital Storage Oscilloscopes
- Function Generators
- Programmable Function Generators
- OrCAD Software (10 users)
- Analog & Digital Trainer Boards

PEC-INTEL LAB
- Intel Atom boards.
- PC with core i7 processors.
- Embedded system design
- Application projects

VIRTUAL INSTRUMENTATION CENTRE
- Embedded Sensor Kit (MyRio)
- CNI ELVIS II +
- LabView 2013 Version
- Data Logger Cards
- PH Sensor, Magnetic Sensor, Humidity Sensor
- NI Simulator

EMBEDDED SYSTEM LAB
- Digital & Analog circuit simulator
- Xilinx ISE Design suite
- Flowcode of PIC
- ARM & AVR micro controllers
- C for PIC
- ZIGBEE Interface module

MICROWAVE LAB
- IE3D (Hyper Lynx 3D EM Simulation Software)
- Microwave benches with S-Band & X-Band components
- VSWR Metres
- CRO 250 MHz

OPTICAL COMMUNICATION
- Optsim software (Version 5.4)
- VPI Photonics Software (Version 9.0)
- PC with core i7 processors.
- WDM KIT (Components and Systems)
- Rsoft Beamprop Software CAD
- Imported from OPTOSCI Limited Scotland

ADVANCED COMMUNICATION LAB (COLLABORATION WITH VIDEOCON)
- GSM Bits 1800 Mhz
- FMS (Fibre Management System)
- SMPS
- CDMA Bits 800 Mhz
- GSM FCT
- ADSL Wifi Modem
- WBB CPE
- Battery Bank 300 AH 48V
- Optical Splitter

COMMUNICATION
- GSM Development 2
- Wi-Fi Application Kit
- Wireless Sensor Network Develop System
- Wireless Communication Trainer Using Emulator on ISM Band
- Wireless Sensor Network Classroom