#### LABORATORY FACILITIES AVAILABLE IN ECE DEPARTMENT

### **MAJOR FACILITIES IN VLSI LAB (237)**

SR. No.	SOFTWARE TOOLS	No. of Licenses/ boards
1	Multisim Tool set-	50 License
2	LabVIEW Complete Tool Kit	50 User License
3	Matlab Software	
4	XILINX tool set	Site license
5	ISE; ChipScope Pro; EDK; System Generator	
6	<b>FPGA</b> boards: Spartan 3E starter kit Virtex – II Pro boards; Virtex	4 boards

### FACILITIES IN EMBEDDED SYSTEMS LAB & MICROPROCESSOR AND MICROCONTROLLERS LAB (ROOM NO-209)

SR. No.	KIT/BOARD	ACCESSORIES
1.	ALTERA DSP DEVELOPMENT KIT	Processor STRATIS; STRAT II EP2S60 FPGA
2.	XILINX ISE EMBEDDED DEVELOPMENT KIT	VIRTEX 4; VIRTEX 2PRO; VIRTEX 2; SPARTAN 3; SPARTAN 3E; MICROBLAZE; CHIP Scope pro; Modelsim; ISE Software package
3.	PROJECT KIT	80C186, 80C196; 89C51 Development kit; PIC Development kit; ARM Development kit Supplied by TRIOZTECH
4.	ROBOTIC KIT	<ul> <li>(i). FIREBIRD III – MOBILE ROBOT PLATFORM: ATMEGA 16 L 128 MICROCONTROLLER (With full accessories)</li> <li>(ii). SPARK III ROBOTIC RESEARCH PLATFORM: 8952 ROBOTICS (With full accessories) Supplied by NEX Robotics IIT BOMBAY</li> </ul>
5.	UNIVERSAL PROGRAMMER	SUPERPROIII (parallel) Supporting 3000 ICs; SUPERPRO 280U(USB) Supporting 30000 ICs
6	ADDON CARD	89C51 CPU; 8 Bit ADC; 8 Bit DAC; Stepper Motor Driver; Stepper Motor Controller; 8255 Interface card; HEX Keyboard; 12V Stepper Motor.
7.	SUPPORTING ACCESSORIES	Digital CRO - 200MHZ; Digital Storage Oscilloscope - 200MHZ

# MAJOR FACILITIES IN DIGITAL SIGNAL PROCESSING LAB, DIGITAL IMAGE PROCESSING, MACHINE LEARNING LAB (ROOM NO-237)

SR. No.	SOFTWARE	HARDWARE
1.	MATLAB	Analog Device's DSP Starter Kit for BF533
2.	LAB VIEW	Texas Instrument's DSK6713 Kit.
3.	Multisim (Circuit simulation software)	Audio Evaluation Module - TI DSP based
4.	CCS (code Composer Studio for programming with TI DSPs)	High End Workstations
5.	VisualDSP++ for programming with ADSPs	Arbitrary Waveform Generators, 80 MHz Oscilloscopes

#### MAJOR FACILITIES IN COMMUNICATION LAB ROOM NO-205

SR. No.	COMMUNICATION EQUIPMENTS/KITS/ BOARDS
1.	Arbitrary waveform generators-80MHz
2.	Synthesised AM/FM signal generators-1GHz
3.	AM/FM generators-2 channel-25 MHz
4.	Digital Osciloscopes-500MHz
5.	Function Generators-10 MHz
6.	Desktop computer-printer
7.	Microwave bench with Klystron and Gunn oscillator
8.	Microwave communication system with all types of antennas
9.	Optical communication kits
10.	Logical analysers
11.	Oscilloscopes
12.	MATLAB software, SIMULINK and tool boxes
13.	DSP kits

### FACILITIES IN ANALOG ELECTRONICS LAB & ELECTRONICS CIRCUITS LAB ROOM NO-208

SR. No.	ANALOG ELECTRONICS COMPONENTS/KITS/BOARDS
1.	Trainer Kits/Discrete Components
2.	Oscilloscope
3.	Function Generator
4.	Power supply
5.	Digital Multi-meter
6.	Soldering station etc.

#### MAJOR FACILITIES IN RESEARCH LAB ROOM NO-132

SR. No.	ANALOG ELECTRONICS COMPONENTS/KITS/BOARDS
1.	Hind Hivac Coating Unit
2.	Micro strip Milling Machine
3.	Vector Network Analyzer
4.	Ultra Wideband Horn Antennas
5.	Langmuir Blodgett Thin Film Deposition System
6.	Photolithography Setup
7.	Oxidation and Diffusion Furnaces
8.	Four Point Probe Station

### MAJOR FACILITIES IN SIGNAL & SYSTEM LAB/ DESIGN AUTOMATION LAB/ ELECTROMAGETIC WAVE LAB ROOM NO-235

SR. No.	SOFTWARE TOOLS
1.	MATLAB
2.	LAB VIEW
3.	Multisim (Circuit simulation software)
4.	CCS (code Composer Studio for programming with TI DSPs)
5.	VisualDSP++ for programming with ADSPs

## MAJOR FACILITIES IN MICROPROCESSOR AND INTERFACING LAB/ PROJECT LAB ROOM NO-211

SR. No.	EQUIPMENTS /KITS/BOARDS	QUANTITY
1.	Microprocessors 8085	5
2.	Microprocessors 8086	18
3.	PPI-8255	6
4.	Power supply 12V	10
5.	Computer(DELL)	20

### MAJOR FACILITIES IN MICROWAVE LAB ROOM NO-206

SR. No.	MICROWAVE TEST BENCH
1.	To study the characteristics of Gunn Diode
2.	To study the radiation of Horn Antennas
3.	To study the radiation of Waveguide