

Faculty of Information and Communication Engineering

B.E. Medical Electronics

(R 2017) Semester – II

EC8261 CIRCUITS AND DEVICES LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	BC107,BC148,2N2646,BFW10	25		
2.	IN4007,Zener diodes	25		
3.	Resistors, Capacitors, Inductors-	100		
4.	Bread Boards	15		
5.	CRO(30MHz)	15		
6.	Function Generators(3MHz)	10		
7.	Dual Regulated power Supplies(0-30V)	10		

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(R 2017) Semester – III

MD8311 INSTRUMENTATION LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Strain gauge Trainer Kit (with loads)	1 set		
2.	LVDT trainer kit	1 set		
3.	Temperature measurement System using Thermocouple	1		
4.	Thermocouple	1		
5.	Temperature measurement System using Thermistor	1		
6.	Thermistor	1		
7.	Temperature measurement System using RTD	1		
8.	RTD	1		
9.	Thermometer	3		
10.	Heater with water bath	3		
11.	Photo electric transducer trainer kit (light source, LDR, Photo diode and photo Transistor)	1		
12.	SpO2 measurement system	1		
13.	Respiration rate measurement system	1		
14.	Thermal Imaging Camera	1		

15.	Wheat stone bridge	1		
16.	Kelvin double bridge	1		
17.	Maxwell bridge	1		
18.	Schering bridge	1		
19.	Decade resistances, capacitance, and inductance boxes	3 sets each		
20.	Speed and Torque measurement kit with Tachometer	1		
21.	ICs – A/D and D/A	1		
22.	Regulated power supply	10		
23.	Multi meter	10		
24.	CRO	10		

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(R 2017) Semester – III

EC8361 ANALOG AND DIGITAL CIRCUITS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	CRO/DSO (30MHz)	15		
2.	Signal Generator /Function Generators (3 MHz)	15		
3.	Dual Regulated Power Supplies (0 - 30V)	15		
4.	Standalone desktop PCs with SPICE software	15		
5.	Transistor/FET (BJT-NPN-PNP and NMOS/PMOS)	50		
6.	Dual power supply/single mode power supply	15		
7.	Resistors, Capacitors, Inductors	50		
8.	Diodes, Zener diode	10		
9.	IC Trainer Kit	15		
10.	Bread Boards	15		
11.	Computer with HDL software	15		
12.	Seven segment display	15		
13.	Multimeter	15		
14.	ICs 7400/ 7402 / 7404 / 7486 / 7408 / 7432 / 7483 / 74150 / 74151 / 74147 / 7445 / 7476/7491/ 555 / 7494 / 7447 / 74180 / 7485 / 7473 / 74138 / 7411 / 7474	50		

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(R 2017) Semester – IV

EC8462 LINEAR INTEGRATED CIRCUITS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	CRO /DSO (Min 30MHz)	15		
2.	Signal Generator /Function Generators (2 MHz)	15		
3.	Dual Regulated Power Supplies (0-30V)	15		
4.	Digital Multimeter	15		
5.	IC tester	5		
6.	Standalone desktops PC	15		
7.	Components and Accessories: Transistors, Resistors, Capacitors, diodes, Zener diodes, Bread Boards, Transformers, wires, Power transistors, Potentiometer, A/D and D/A convertors, LEDs	50		

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(R 2017) Semester – IV

EC8381 FUNDAMENTALS OF DATA STRUCTURES IN C LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Standalone desktops with C Compiler	30		

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(R 2017) Semester – IV

MD8411 MEDICAL INSTRUMENTATION LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Op amp kit	1		
2.	Thermistor setup	1		
3.	Sphygmomanometer	1		
4.	Photoplethysmograph unit	1		
5.	Multiparameter patient monitoring system	1		
6.	Respiration measurement kit	1		
7.	ECG recorder	1		
8.	EMG recorder	1		
9.	Telemetry unit	1		
10.	Blood flow measurement system using ultrasound transducer	1		
11.	Function Generators	1		
12.	Glucometer	1		
13.	PH and conductivity Meter	1		
14.	DSOs	1		
15.	Regulated Power supplies	1		
16.	Bread boards	1		
17.	IC 741	5		
18.	IC AD 620	5		

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(R 2017) Semester – V

EC8562 DIGITAL SIGNAL PROCESSING LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	PCs with Fixed / Floating point DSP Processors (Kit / Add-on Cards)	15		
2.	MATLAB with Simulink and Signal Processing Tool Box or Equivalent Software in desktop systems	15		
3.	Signal Generators (1MHz)	15		
4.	CRO (20MHz)	15		
5.	Analog Discovery kit(signal Generator + CRO together)	10		

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(R 2017) Semester – V

MD8511 MEDICAL EQUIPMENT LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Multioutput power supply (+15v, -15v, +30V variable, +5V , 2A)	2		
2.	Short wave Diathermy	1		
3.	Ultrasound diathermy	1		
4.	Single parameter biotelemetry system	1		
5.	Electrical Safety Analyser	1		
6.	Spirometry with associated analysis system	1		
7.	ECG Simulator	1		
8.	Medical stimulator	1		
9.	Surgical diathermy with analyzer	1		
10.	Audiometer	1		
11.	Lab View	1		
12.	visual acuity measurement kit	1		
13.	Syringe pump	1		
14.	Infusion pump	1		

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(R 2017) Semester – VI

EC8681 MICROPROCESSORS AND MICROCONTROLLER LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	8086 Microprocessor trainer kit with power supply	15		
2.	8051 Microcontroller trainer kit	15		
3.	Traffic light control Interfacing card compatible with 8086 & 8051 Trainers	5		
4.	Stepper motor control Interfacing compatible with 8086 & 8051 kits	5		
5.	Digital Clock Interfacing board compatible with 8086 & 8051 kits	5		
6.	Keyboard & Display Interface board compatible with 8086 & 8051 kits	5		
7.	Printer Interfacing card compatible with 8086 & 8051 kits	5		
8.	A/D and D/A Interfacing card compatible with 8086 & 8051 kits	5		
9.	Serial and Parallel Interfacing card compatible with 8086 & 8051 kits	5		

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(R 2017) Semester – VII

EC8762 DIGITAL IMAGE PROCESSING LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	PCs with related accessories (Intel CORE 2 Duo(Minimum) or Intel I5, I7(latest), RAM-2GB (Minimum), Hard Disk – 1TB)	30		
2.	MATLAB (Latest Version) 17A or 18, Image processing tool box	15 user license		