Faculty of Electrical Engineering

B.E. Electronics and Instrumentation Engineering

(R 2017) Semester – II

EE8261 ELECTRIC CIRCUITS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Regulated Power Supply: 0 - 15 V D.C	10		
2.	Function Generator (1 MHz)	10		
3.	Single Phase Energy Meter	1		
4.	Oscilloscope (20 MHz).	10		
5.	Digital Storage Oscilloscope (20 MHz)	1		
6.	PC with Circuit Simulation Software	10		
7.	e-Sim / Scilab/ Pspice / Matlab /other Equivalent software Package)	10		
8.	Printer	1		
9.	AC/DC - Voltmeters	10		
10.	Ammeters	10		
11.	Multi-meters	10		
12.	Single Phase Wattmeter	3		
13.	Decade Resistance Box, Decade Inductance Box, Decade Capacitance Box (Each).	6		
14.	Circuit Connection Boards	10		

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(R 2017) Semester – III

CS8383 OBJECT ORIENTED PROGRAMMING LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Systems with either Net beans or Eclipse	30		

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(R 2017) Semester – III

EI8361 MEASUREMENTS AND TRANSDUCERS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Measurement of Linear displacement using Potentiometer	1		
2.	Strain gauge and Load cell Characterisation and application	1		
3.	LVDT Characterisation and application	1		
4.	Hall effect Characterisation and application	1		
5.	Measurement of Angular displacement	1		
6.	Muffle furnace	1		
7.	Thermistor Characterisation and application	1		
8.	Various types Thermocouple and RTD Characterisation and application	1		
9.	Measurement of power and energy	1		
10.	Sufficient number power supply, Galvanometer, Bread board, Multimeter, Resistors, Decade	15		
11.	Sufficient number Capacitance box, Decade resistance box, Decade Inductance box, CRO	15		

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(R 2017) Semester – IV

EE8461 LINEAR AND DIGITAL 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.	Dual ,(0-30V) variable Power Supply	10		
2.	CRO (30MHz)	9		
3.	Digital Multimeter	10		
4.	Function Generator (1MHz)	8		
5.	IC Tester (Analog)	2		
6.	Bread board	10		
7.	Computer (PSPICE installed)	1		
8.	IC 741/ IC NE555/566/565	10		
9.	Digital IC types	10		
10.	LED	10		
11.	LM317	10		
12.	LM723	10		
13.	ICSG3524 / SG3525	10		
14.	Transistor 2N3391	10		
15.	Diodes (IN4001, BY126)	10		
16.	Zener diodes	10		
17.	Potentiometer	10		
18.	Step-down transformer(230v/12-0-12v)	10		
19.	Capacitor	10		
20.	Resistors 1/4 Watt Assorted	10		
21.	Single Strand Wire	10		

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(R 2017) Semester – IV

EI8461 DEVICES AND MACHINES LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Circuit Simulation Software (5 Users)	5		
2.	(Pspice / Matlab /other Equivalent software Package) with PC	30		
3.	Sufficient number of power supply, Galvanometer, Bread board, Multimeter,	10		
4.	Semiconductor devices like Diode, Zener Diode, NPN Transistors, JFET, and UJT	10		
5.	DC Shunt Motor with Loading Arrangement	3		
6.	Single Phase Transformer	3		
7.	Single Phase Induction Motor with Loading Arrangement	1		
8.	Single Phase Auto Transformer	3		
9.	Single Phase Resistive Loading Bank	2		
10.	Ammeters	2		
11.	Voltmeters or multimeters	2		
12.	Switches	2		
13.	Tachometers	2		
14.	Wattmeters	2		

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(R 2017) Semester – V

EE8681 MICROPROCESSORS AND MICROCONTROLLERS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	8085 Microprocessor Trainer with Power Supply	15		
2.	8051 Micro Controller Trainer Kit with power supply	15		
3.	8255 Interface board	5		
4.	8251 Interface board	5		
5.	8259 Interface board	5		
6.	8279 Keyboard / Display Interface board	5		
7.	8254 timer counter	5		
8.	ADC and DAC card	5		
9.	AC & DC motor with Controller	5		
10.	Traffic Light Control System	5		

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(R 2017) Semester – V

EI8561 INDUSTRIAL INSTRUMENTATION LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Orifice plate	1		
2.	Dead weight tester with pressure gauge	1		
3.	Torque trainer	1		
4.	Saybolt Viscometer	1		
5.	Vacuum gauge	1		
6.	DP transmitter	1		
7.	UV Visible spectrophotometer	1		
8.	pH meter	1		
9.	Conductivity meter	1		
10.	ECG trainer	1		
11.	Pulse rate trainer	1		
12.	tacho meter	1		

Faculty of Electrical Engineering

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(R 2017) Semester – VI

CS8381 DATA STRUCTURES LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Systems with Linux Operating System with gnu compiler	30		

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(R 2017) Semester – VI

EI8661 PROCESS CONTROL LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Flow process station with all accessories	1		
2.	Analog / Digital PID controller	2		
3.	Control valve trainer (with position for varying △P across the valve)	1		
4.	Flow meter	1		
5.	Level process station with all accessories	1		
6.	Temperature process station with all accessories	1		
7.	Pressure process station with all accessories	1		
8.	MATLAB software	minimum 10 user license		
9.	Personal computer	15		

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(R 2017) Semester – VII

EI8761 INDUSTRIAL AUTOMATION LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Programmable Logic controller	5		
2.	Programmable Logic controller Software	10		
3.	DAQ card	2		
4.	Filling /Draining System	1		
5.	Traffic Light Controller	2		
6.	DC Motor	5		
7.	Personal computer	10		
8.	DCS along with Interface modules	1		
9.	Thermal Process	1		
10.	Level Process	1		
11.	Flow Process stations	1		
12.	Smart Transmitter	1		

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(R 2017) Semester – VII

EI8762 INSTRUMENTATION SYSTEM DESIGN LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Sufficient number of Monolithic Instrumentation amplifier, Operational amplifiers, IC7805 and resistors, diodes, capacitors	15		
2.	Linear control valve, ON/OFF control valve, Air regulator, Rotameter, Pump	1 each		
3.	Sufficient number of IC 741, CRO, Bread board, Signal generator (PID) Microprocessor kit with ADC and DAC section	15		
4.	Any Process station (Temperature or Level) with Corresponding sensors, Data acquisition card, and Storage device (microcontroller/microprocessor)	1		
5.	Flow process station with DP transmitter	1		
6.	Loop analyzer	1		
7.	Thermocouple & RTD	Minimum 1		
8.	Bonded strain gauge, Loads	Minimum 1		
9.	orifice plate	Minimum 1		