Faculty of Mechanical Engineering

B.E. Mechanical and Automation Engineering

(R 2017) Semester – III

EE8361 ELECTRICAL ENGINEERING LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	DC Shunt motor	2		
2.	DC Series motor	1		
3.	DC shunt motor-DC Shunt Generator set	1		
4.	DC Shunt motor-DC Series Generator set	1		
5.	Single phase transformer	2		
6.	Three phase alternator	2		
7.	Three phase synchronous motor	1		
8.	Three phase Squirrel cage Induction motor	1		
9.	Three phase Slip ring Induction motor	1		

Faculty of Mechanical Engineering

B.E. Mechanical and Automation Engineering

(R 2017) Semester – III

EC8382 ELECTRONICS AND MICROPROCESSORS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Voltmeters	5		
2.	Ammeters	5		
3.	PN Diode, BJT, JFET, Logic Gates, Shift Registers and Counters	1		
4.	Digital Logic Trainer Kits	1		
5.	Breadboards	1		
6.	Microprocessor Kits - 8085	5		
7.	D/A Converter Interface	1		
8.	Stepper Motor Interface	1		
9.	CRO	1		
10.	Waveform Generator	1		
11.	Multimeter	1		

Faculty of Mechanical Engineering

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(R 2017) Semester – IV

CE8381 STRENGTH OF MATERIALS AND FLUID MECHANICS & MACHINERY LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Universal Tensile Testing machine with double 1 shear attachment -40 Ton Capacity	1		
2.	Torsion testing machine (60 NM Capacity)	1		
3.	Impact testing machine (300 J Capacity)	1		
4.	Brinell Hardness Testing Machine	1		
5.	Rockwell Hardness Testing Machine	1		
6.	Spring Testing Machine for tensile and compressive loads (2500 N)	1		
7.	Metallurgical Microscopes	3		
8.	Muffle Furnace (800 C)	1		
9.	Orifice meter setup	1		
10.	Venturi meter setup	1		
11.	Rotameter setup	1		
12.	Pipe Flow analysis setup	1		
13.	Centrifugal pump/submergible pump setup	1		
14.	Reciprocating pump setup	1		
15.	Gear pump setup	1		
16.	Pelton wheel setup	1		
17.	Francis turbine setup	1		
18.	Kaplan turbine setup	1		

Faculty of Mechanical Engineering

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(R 2017) Semester – IV

ME8461 MANUFACTURING TECHNOLOGY LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Lathe	15		
2.	Drilling Machine	1		
3.	Milling Machine	2		
4.	Planning Machine	1		
5.	Shaping Machine	2		

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(R 2017) Semester – V

AN8511 DYNAMICS AND METROLOGY LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Micrometer	5		
2.	Vernier Caliper	2		
3.	Vernier Height Gauge	2		
4.	Vernier Depth Gauge	1		
5.	Slip Gauge Set	1		
6.	Gear Tooth Vernier	2		
7.	Sine Bar	1		
8.	Bevel Protractor	1		
9.	Floating Carriage Micrometer	1		
10.	Profile Projector	1		
11.	Mechanical / Electrical / Pneumatic Comparator	1		
12.	Temperature Measuring Setup	1		
13.	Displacement Measuring Setup	1		
14.	Force Measuring Setup	1		
15.	Torque Measuring Setup	1		
16.	Vibration / Shock Measuring Setup	1		
17.	Autocollimator	1		
18.	Coordinate Measuring Machine	1		
19.	Tool Makers Microscope	1		
20.	Dial Gauge Calibration	1		

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(R 2017) Semester – V

CS8481 DATABASE MANAGEMENT SYSTEMS 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 MySql	30		
2.	Visual Studio	30		
3.	Server	1		

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B.E. Mechanical and Automation Engineering

(R 2017) Semester – V

AN8512 LAN AND NETWORKING LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	C /C++ / Java/ Equivalent Compiler Network simulator like NS2/Glomosim/OPNET/ Equivalent	30		
2.	Standalone desktops	30		

Faculty of Mechanical Engineering

B.E. Mechanical and Automation Engineering

(R 2017) Semester – VI
AN8681 AUTOMATION LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	CNC Lathe	1		
2.	CNC Milling Machine	1		
3.	Pick and Place Robot	1		
4.	PLC Trainer	1		

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(R 2017) Semester – VII

MF8761 COMPUTER AIDED SIMULATION AND ANALYSIS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Computers with necessary accessories	30		
2.	Printer	1		
3.	Any Commercially available Finite element analysis software with preprocessor, solver & post processor	30		
4.	MATLAB Software (Basic modules) or other equivalent software	5		

Faculty of Mechanical Engineering

B.E. Mechanical and Automation Engineering

(R 2017) Semester – VII

ME8781 MECHATRONICS LABORATORY

Requirements for a batch of 30 students

Sl. No.	Description of Equipment	Quantity required (R)	Quantity available (A)	Deficiency (R - A)
1.	Basic Pneumatic Trainer Kit with manual and electrical controls/ PLC Control each	1		
2.	Basic Hydraulic Trainer Kit	1		
3.	Hydraulics and Pneumatics Systems Simulation Software	10		
4.	8051 - Microcontroller kit with stepper motor and drive circuit sets	2		
5.	Image processing system with hardware & software	1		