

Laboratories

S. No.	Name of the Laboratory / Semester	No. of students per setup(Batch Size)	Name of the Important equipment	Weekly utilization status (all the courses for which the lab is utilized)	Technical Manpower support		
					Name of the technical staff	Designation (Contractual)	Qualification
1.	AIP/ 3 rd Semester	5	1. Heating mantles 2.Laboratory stirrer 3.Hot air oven 4.High precision water bath 5. Abbe's refractometer 6. Melting point Apparatus 7. High precision oil Bath	3 hours in two days	Ms. Shipra Agnihotri	Research Assistant	M.Sc, Ph.D Pursuing
2.	PT Lab/ 5th Semester	5	1.Indentation hardness tester 2.Flex testing machine 3.Vicat softening point 4.Melt flow index tester 5.Rubber hardness tester for soft rubber 6.Dart impact tester 7.Gauges thickness gauge for rubber 8.Gauges thickness gauge for rubber 9. Rock well hardness tester 10.Volume Resistivity 11.Brook field digital viscometer 12. Universal tensile machine 13.Dielectric strengter tester , Dielectric strengter	3 hours in two days	Mr. Govind Singh Chuhan	Foremen	M.Tech.
3.	MPR Lab/ 5th Semester	5	1. Heating mantles 2.Laboratory stirrer 3.Hot air oven 4.High precision water bath	3 hours in two days	Ms. Shipra Agnihotri	Research Assistant	M.Sc, Ph.D Pursuing

4.	PC Lab/7th Semester	5	<ol style="list-style-type: none"> 1. Double beam UV spectrophotometer 2. Differential scanning calorimeter 3. Lab scale microwave synthesizer 4. Electronic desimeter 5. Thermal gravimetric analyzer 6. Wear and friction monitor 7. Indigenous 4 Sided Applicator 	3 hours in two days	Ms. Shipra Agnihotri / Mr. Govind Singh Chuhan	Research Assistant / Foremen	M.Sc, Ph.D Pursuing/ M.Tech.
5.	SPR Lab/ 4th Semester	5	<ol style="list-style-type: none"> 1. Heating mantles 2. Laboratory stirrers 3. Vacuum oven 4. High precision water bath 	3 hours in two days	Ms. Shipra Agnihotri	Research Assistant	M.Sc, Ph.D Pursuing
6.	PP Lab/ 6th semester	5	<ol style="list-style-type: none"> 1. Lab scale horizontal screw based injection molding M/C 2. Film Casting Setup 3. Compression Molding M/c 4. Blown Film Extruder 5. Twin Screw Extruder 	3 hours in two days	Ms. Shipra Agnihotri	Research Assistant	M.Sc, Ph.D Pursuing
7.	Project/ 8th semester	5	<ol style="list-style-type: none"> 1. Projector (02) 2. Laptop (01) 3. Computer, Desktop i7 (01) 	3 hours in two days	Mr. Govind Singh Chuhan	Foremen	M.Tech.

Additional facilities created for improving the quality of learning experience in Laboratories

Sl. No.	Facility Name	Details	Reason(s) for creating facility	Utilization	Areas in which students are expected to have enhanced learning	Relevance to POs/PSOs
1.	Smart Class Room	Fully equipped shared Smart Class room with LCD projector and software's with the seating capacity of 60. Comfortable desks, chairs and teaching aids. Glass board, Fan, Tube light, chalk board	In Smart classes, we use all interactive modules like videos/ presentations and these visually attractive methods of teaching becomes appealing to students who are already struggling with the traditional method of teaching in a classroom. In fact, smart classes are almost like watching videos as sometimes, animated visuals are used to teach a point. This kind of visual is both eye-catching and young students can easily relate with them.	Per Semester 10 hrs	Subjects (communication, microwave, Real time application oriented subjects) which have design, simulation and fabrication can be easily analyzed and visualized	PO5
2.	Seminar Hall	Fully equipped shared seminar hall with Computer, Projector, 100 Student Desk, White Board, Air conditioner, Fan, Cushion chair, Microphone, Speaker, LED lights, Podium.	To present technical talk/ project seminars/ research papers/ workshops/ industry interaction presentation. Overall development of students like cultural, sports activities etc.,	Per Semester 12 hrs	To bridge the band gap between academic and industry curriculum. To upgrade students to industry standard. Cultural and sports activities.	PO5
3.	Lab Manuals along with instruction classes For all the labs	Manuals are provided for Analog Electronics, Digital Electronics, HDL, Microcontroller, Microprocessor, AC +LIC, Advanced	To create an awareness about the experiment and to educate the need of conducting the same. Students can understand concept of the experiment better.	Throughout the semester	Design of Electronic circuit and testing. Better usage of software tools.	PO1

		communication, Power Electronics and VLSI labs.	To document the same using the relevant data.			
4.	E Journals, E- books facility	IEEE, Springer, Elsevier Science	For research/ project/internship activities. To know about recent trends in science and technology. Update the subject knowledge using various books and journals.	Throughout the semester	Engineering and Technology /Medical. Automotive, Solar, Metro Electronics/Agriculture Engineering.	PO2
5.	English learning language class	The English faculty is deputed to teach Basic English for the first year students to make them to understand .regular engineering concepts clearly.	To increase communication skill among students.	Per semester 20 hrs	Better Communication and understanding English language	PO10
5.	Departmental Library	Having collection of Text Books, CD's, Reference, Books and Project / seminar report.	To meet the needs of students To provide reference facilities To refer advanced information for seminar, laboratory projects	Throughout the semester	Student learning process	PO1
6	Research and Development lab and Project lab	Mini and Major project models- guided by our faculty members in various fields of engineering. Open source software's like Lab View, P spice, Keil micro vision, Xilinx 9.1i, Micro wind	Real time application To create innovative ideas To build the creative skills Motivates student to come up with projects/products.	Throughout the semester	Prototype models are developed, Automotive electronics Home automation Safety electronics models are developed Publishing Quality Technical papers.	PO1 to PO12
7	Video's From NPTEL, Classle	Displayed in the Lab.	Understanding the Video oriented Teaching and learning.	Per semester 15 hrs	Better Understanding the subject. In depth knowledge beyond Lab.	PO 5