



Department of Electronics and Communication Engineering

Malaviya National Institute of Technology Jaipur

List of Laboratories with Details

S N	Name of the Lab	Room Number	List of significant Hardware Equipment	List of significant Software	List of Course Labs being conducted in odd Semester	List of Course Labs being conducted in even Semester	Batch size	Safety measures
1	Basic Electronics Lab	EC103	DSO (100 MHz, 4 channel), Power Supply (Single Output D.C), Digital Multimeter,	NA	Basic Electronics Lab (ECP102, I Semester B Tech)	Basic Electronics Lab (ECP102, II Semester B Tech)	20-22	First aid kit, Fire extinguishers
2	Analog Circuit and Signals Lab	EC104	Digital Storage Oscilloscope (DSO) DC Power Supply	NA	a. Electronic Devices & Circuits Lab (ECP 201, III Semester, B Tech) b. Digital Communication Systems Lab (ECP 303, V Semester, B Tech)	a. Applied Electronics Lab (ECP 211, IV Semester, B Tech)	25	First aid kit, Fire extinguishers
3	Communication Lab	EC116	DSO, DC Power Supply, Microwave (Klystron) test Bench (X, C, S band), 6.5Ghz field fox RF Analyzer, Spectrum Analyzer, antenna training System, Microwave power meter	NA	a. Microwave Engineering Lab (ECP 301, V Semester B Tech)	Antenna and Wave Propagation Lab (ECT 311, VI Semester B Tech)	25	First aid kit, Fire extinguishers
4	Computing Lab	EC117	25 Computers in working condition,	ASM85 Assembler (Freeware), MASM (Freeware),	a. Data Structures & Algorithms Lab (ECP 204, III	Microprocessor Lab (ECP 213, IV Semester B Tech)		First aid kit, Fire extinguishers

				DEV C++ (Freeware), Windows 7	Semester B Tech) b. Digital Signal Processing Lab (ECT 302, V Semester B Tech)			
5	VLSI Design and Simulation LAB	EC205	35 Computers in working condition	Cadence R&D bundle 10 licenses, Cadence P&G bundle 10 licenses, Synopsis cad tools 05 licenses, Xilinx cad vivado 25 licenses, Symica cad tools 10 licenses, Mentor graphics 25 licenses, Windows - 03, Linux Scientific Linux 6.10 – 29, Redundant Server RHEL Santiago 6.10 - 3	a. Digital CMOS IC Lab / CMOS IC Lab (ECT 304, V Semester, B Tech) b. System Design Lab - 1 (ECD 483, VII Semester, B Tech)	a. Analog CMOS IC Lab (ECP 316, VI Semester, B Tech) b. System Design Lab – II (ECD 482, VIII Semester, B Tech)	25-30	First aid kit, Fire extinguishers
6	Embedded System Lab	EC206	28 Computers including 22 workstations in working condition, DSO, Power supply, Signal Analyzer, Logic Analyzer, Frequency Counter, and Function Generator.	Keil ARM MDK, Keil C51, Vxworks(RTO S), EDSIM51 (Freeware), Xilinx Vivado, Xilinx ISE, Windows 7, Dev C++(Freeware) , DosBox(Freeware), Arduino(freeware), Mbed(online tool).	System Design Lab-I (ECD4 83, VII Semester. B Tech)	a. Embedded Systems Design Lab (EC P317, VI Semester. B Tech) b. System Design Lab-II (ECD 482, VIII Semester. B Tech)	25-27	First aid kit, Fire extinguishers
7	Digital Electronics & Microprocessor Lab	EC214	30 Computers in working condition,	Matlab, Putty (Freeware), Windows 10	a. Probabilistic Methods in Signals & Systems (ECP 206, III Semester, B Tech)	a. Operating Systems Lab (ECP 215, IV Semester, B Tech)	30	First aid kit, Fire extinguishers

8	Optical Communication lab	EC215	08 Computers in working condition, 01 Light Runner Fiber Optic Communication Bench, FM and AM trainer kit.	R Soft CAD- 2, Optisystem, Matlab.	a. Optical Communication Systems Lab (ECT 305, V Semester, B Tech) b. Training and Seminar (ECD 481, VII Semester, B tech)	a. Analog Communication Lab (ECP 212, IV Semester, B Tech) b. M Tech/PhD student's presentations.	25	First aid kit, Fire extinguishers
9	Photonics and THz Communication Lab	EC302	EDWAVE, EDCOM, EDAMP, EDNET, EDLASE, & EDWDM Hardware kits. Optical Fusion Splicer: For joining two optical fibers (KEYMAN-S1), OTDR: To detect performance of new fiber optics links and detect problems with existing fiber links.	1. RSOFT- (i) CAD Software (Full Wave, Band Solve and Beam Prop) (ii) RSOFT Optim Software 2. Interconnect Software from Lumerical 3. Optiwave – (i) OptiBPM (ii) OptiFDTD (iii) OptiFiber (iv) OptiGrating (v) OptiSpice (vi) OptiSystem	Communication Lab- I (ECP-667, I Semester, M Tech WOC & ECE)	Communication Lab- II (ECP-668, II Semester, M Tech WOC & ECE)	18	Specs for Laser Light, First aid kit, Fire extinguishers
10	Electronics System Level design Lab	EC303	Research Lab	Research Lab	Research Lab	Research Lab	NA	First aid kit, Fire extinguishers
11	IC/MEMS Fabrication Lab	EC304	Two High End Workstations	TCAD Software	Research Lab	Research Lab	10	First aid kit, Fire extinguishers
12	Computing Lab (E&ICT)	EC305	Research Lab	Research Lab	Research Lab	Research Lab	NA	First aid kit, Fire extinguishers
13	Advanced & Emerging Devices Lab	EC306	Research Lab	Research Lab	Research Lab	Research Lab	20	First aid kit, Fire extinguishers
14	Prototyping and Reconfigurable System Lab	EC307	NA	NA	a. Switching Theory & Finite Automata Lab (ECP	Research Lab	20	First aid kit, Fire extinguishers

					202, III Semester B Tech)			
15	Digital Signal & Image processing Lab	EC308	12 DSP Boars Starter Kits, 02 DSP Board Video Platforms, 10 Computers	Latex, Sci Lab, MatLab	Research Lab	Research Lab	15	First aid kit, Fire extinguish ers
16	EMI/EMC/Wir eless Testing Lab	EC309	Research Lab	Research Lab	Research Lab	Research Lab	NA	First aid kit, Fire extinguish ers

Photographs

