

## Laboratory Details

Sr. No.	Name of the Laboratory	Name of Important Equipment	Name of Technical staff	Total Laboratory Cost Including Furniture
1	BASIC ELECTRICAL LABORATORY (008-A)	Network Electrical Kits, Single phase and Three phase transformer Norton, Thevenin, Superposition Thermos Circuits kits, Load Lamp, RLC Series and Parallel Circuit Kits. Half wave and full wave rectifier. CRO.	Mr. S. B. Harel	Rs. 14,72,618
2	MACHINES LABORATORY (008-B))	Megger. Maxwell Bridge. Kelvin Bridge, Hay's Bridge, Schering Bridge, Function Generators, Three phase Induction Motors, DC shunt and Series motors, AC/DC Bridges.	Mr. S. B. Harel	Rs. 6,26,340
3	Dr. A.P.J ABDUL KALAM ADVANCED RESEARCH CENTRE (012)	Fire Bird V 2560 Spark V Robots, Two axis Camera pod with wireless camera, Kinect (Xbox) Sensor, Fire Bird V 8051, Fire Bird V Hexapod Robotic research platform, Altera DE2-115 Board, Programmable CRO, PCB drilling & soldering machines, GPU Laptops. NVIDIA JETSON TK1 Krypton boards, Qualnet S/W, MATLAB Software, NI Laboratory view S/W, 6 PC, Internet Facilities.	Mrs. Ashwini Bhandirge	Rs. 24,57,527
4	MICROPROCESSOR AND SIGNAL PROCESSING LABORATORY	20 PC. DSP TMS320C6713, TMS320C6472 Texas Boards. Dyna 85L Kits, Dyna - 86L Kits, Dyna - 51 Kits. ARM Processor kits. Study Cards – 8253, 8255.	Mrs. Preeti Patil	Rs. 49,21,396

	Y (204)	Laboratory-Tool- 48UXP (Intelligent Universal Programmer). LCD Projector EPSON MODEL - EB - X03. Printer HP LaserJet MFP. Micro Wind Package (10 users) S/W. PSOC kits. EdwinXP10 user Proteus VSM (25 user Dongles) S/W. Internet Facilities.		
5	VLSI AND EMBEDDED SYSTEMS LABORATORY Y (205)	30 PC, Spartan 6 Boards, Virtex-5 MX5VFK-LX50, FPGA Trainer Model, CPLD Trainer Model, Xilinx software, LTS-01 Model LAN Trainer kits, Data Communication Trainer Kit, TCAD Software, NVIDA Jetson TK1 GPU Kits, IOT Home Automation Kit, Internet Facilities.	Mrs. Shweta Pande	Rs. 38,85,509
6	BASIC ELECTRONICS LABORATORY Y (211A))	2 MHz Function Generators, CRO 60Mhz, Channel Digital Storage250 ms/s, CRO 40 MHz Two Channel 4 Trace, CRO 20Mhz Dual Trace, Regulated Dual DC Power Supply, Medium Voltage DC Power Supply, IC Tester, Internet Facilities.	Mr. D. R. Pawar	Rs. 10,10,672
7	INTEGRATED CIRCUIT LABORATORY Y (211B)	2 MHz Function Generators, CRO 60 Mhz, Channel Digital Storage250 ms/s, CRO 40 MHz Two Channel 4 Trace, CRO 20Mhz Dual Trace, Regulated Dual DC Power Supply, Medium Voltage DC Power Supply, IC Tester, Internet Facilities.	Mr. D. R. Pawar	Rs. 11,03,782
8	PG LABORATORY Y (401)	25 PC, MATLABORATORY Software, COMSOL Software, Xilinx Software, Laboratory view Software, Cadence Tool Software,	Mr. S. R. Bandivadekar	Rs. 46,33,627

		GPU Laptops, Internet Facilities.		
9	CONTROL SYSTEMS LABORATORY (408A)	D.C. Position Servo Control, A.C. Synchro Transmitter & Receiver, Stepper Motor Demonstration Unit, Type '0', Type '1', Type '2' Control System, Butterworth High Pass Filter, Chebyshev Filter, Active Filter Trainer, Speed Torque Characteristics of A.C. & D.C Servo Motor, Study of Bode Plot, Potentiometer Error Detector, Frequency/Time Response of 1st & 2nd Order System, Analog PID with 2 <sup>nd</sup> Order as Process, Digital PID with Temperature, BLDC Motor Controller with Motor, CRO, DSO, Internet Facilities.	Mr. L.B. Mali	Rs. 10,04,702
10	POWER ELECTRONICS LABORATORY (408B)	Phase Full Wave Full/Half Controlled Bridge Rectifier, AC Drive Demonstrator with 1Hp Motor, Characteristics TRIAC/ IGBT/SCR Kits, Characteristics of Power Transistor & Power MOSFET, 1-Phase Bridge Inverter Using IGBT (12V), Ac Drive Demonstration PWM Based, Ac Drive Demonstration 1 Phase Cyclo-Converter Based, To Study Different Turn Off Methods Of SCR (Class A To F), DIAC/TRIAC Light Dimmer and Fan Regulator, Triggering Circuit Ramp or Pedestal Cosine Inverse, CRO, DSO, Internet Facilities, Function Generators.	Mrs. Nisha Singh	Rs. 13,31,068
11	DIGITAL ELECTRONICS LABORATORY	4 Bit Bidirectional Shift Register, Logic Circuit Training Kits, Digital Trainer Kits with Variable Clock, Digital IC Trainer Kits, CRO, Function Generator, Dual Power Supply, Portable over Head	Mr. S. R. Bandivadekar	Rs. 11,52,532

	Y 1 (411A)	Projectors, Internet Facilities, MEMS Sensimer unit by NanoSniff Technology.		
12	DIGITAL ELECTRONIC S LABORATORY Y 2 (411B)	Digital Trainer Kits with Variable Clock, CRO, Smart street lighting kit, IOT Home automation kit WiFi BLE, Function Generator, Dual Power supply, Digital IC Trainer Kits, Internet Facilities.	Mr. S. R. Bandivadekar	Rs. 11,60,692
13	BASIC COMMUNICATION LABORATORY Y (413A)	PAM/PPM/PWM Modulation & Demodulation Trainer Kit, TDM Pulse Amplitude Modulation & Demodulation Kit, Frequency Modulation Transmitter Kit, Delta/Sigma Delta and Adaptive Delta Modulation/Demodulation Kit, DSB/SSB AM Transmitter/Receiver Kit, Pulse Code, Modulation & Demodulation Kit, AM, FM Transmitter/Receiver Kit, CRO, DSO, Function Generator, Internet Facilities.	Mr. Akshay Sanas	Rs. 20,51,954
14	ADVANCED COMMUNICATION LABORATORY Y (413B)	BPSK/DPSK/DEPSK Modulation/Demodulation Kit, ASK/FSK/QPSK/DQPSK Modulation/Demodulation Kit, 8QAM/DQAM Modulation /Demodulation Kit, BASE BAND Digital Transmission System Kit, DPCM/ADPCM Modulation & Demodulation Kit, CRC Encoder/Decoder & MSK Modulation & Demodulation Kit, Analog signal sampling and reconstruction Kit, CRO, DSO, Spectrum Analyser 1GHz, Signal Generator, Function Generator, Internet Facilities.	Mr. Akshay Sanas	Rs. 18,53,112



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15	PROJECT LABORATORY (118)	Photo Resist DIP coating Machine Make-crescent, Protocare 2/PCB, Curing Machine (OVEN), Double Sided UV Exposure Unit (PROTO- UV), Proto-Dye/Developer, (2 in 1 unit), Roller Tinning Machine RTMIO, Proto-Contact-PCB Artwork Film Maker, Proto-Etch Etching Machine, PCB Shearing Machine Slash-300, PCB Drilling Machine (Proto Drill-3000).	Mr. D. R. Pawar	Rs. 3,00,225
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Fig. 1: Laboratories in the department.



Fig. 2: Laboratory facilities in the department.