

## Amritapuri Campus

## **Laboratory and Workshop**

## List of Major Equipment/Facilities in each Laboratory/Workshop List of Experimental Setup in each Laboratory/Workshop

	Programm e	Department	Course	Level	Name of the Laboratory	Lab / Major Equipments
1	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	BIOMEDICAL INSTRUMENTAT ION AND SIGNAL PROCESSING	POST GRADUA TE	3D DESIGN LABS	Solidworks Ansys
2	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	THERMAL AND FLUID ENGINEERING	POST GRADUA TE	ABB ROBOTICS LAB	ABB ROBOTIC HAND FOR AUTOMATIC WELDING, ABB ROBOTIC HAND FOR PICK AND PLACE
3	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	GEOINFORMATI CS AND EARTH OBSERVATION	POST GRADUA TE	ADVANCE REMOTE SENSING, GIS AND GEOSPATIAL MODELING LAB	Arc GIS, ENVI, Matlab, QGIS
4	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	THERMAL AND FLUID ENGINEERING	POST GRADUA TE	ADVANCED FLUID MECHANICS LAB	Flow Visualization Equipment, Venturi Meter Calibration Apparatus, Vortexing Apparatus
5	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	APPLIED MECHANICS	POST GRADUA TE	ADVANCED METROLOGY LAB	Coordinate Measuring Machine, Tesa Visio, Adv vision inspection, cnc cmm tesa, elect height gauge
6	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	GEOINFORMATI CS AND EARTH OBSERVATION	POST GRADUA TE	ADVANCED WIRELESS NETWORKS	NI ELVIS II + Basic
7	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	AERODYNAMICS LAB	Wind Tunnel and accessories

8	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	BIG DATA RESEARCH LAB	Power Edge, Laptops, Computers, Servers
9	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	CAD LAB	COMPUTER, PROJECTOR, NETWORK ITEMS AND OTHERS
10	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	THERMAL AND FLUID ENGINEERING	POST GRADUA TE	CAE LAB	Ansys 18, OpenFoam 16
11	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	CIM LAB	Prolight 3000 Turning Center, Expert Mill, View Flex mac, Open FMS manager, View Flex machine, Cnc
12	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	POST GRADUA TE	CISCO LAB	Computers,Network switches, Network items and others
13	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	THERMAL AND FLUID ENGINEERING	POST GRADUA TE	COMPUTATIONAL RESEARCH LAB	Ansys 18, OpenFoam 16, Lammps
14	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	UNDER GRADUA TE	COMPUTER LAB 1	Computers, Network switches, Network items and others
15	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	UNDER GRADUA TE	COMPUTER LAB 2	Computers, Network switches, Network items and others
16	MCA	MASTERS IN COMPUTER APPLICATIONS	MASTERS IN COMPUTER APPLICATIONS	POST GRADUA TE	COMPUTER LAB I	NETWORK ITEMS AND OTHERS
17	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	UNDER GRADUA TE	COMPUTER LAB II	Network Items and Others
18	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	ARTIFICIAL INTELLIGENCE	POST GRADUA TE	COMPUTER LABS - PG	HP Compaq 3330 Pro MT PC
19	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE)	UNDER GRADUA TE	COMPUTER LABS COMMON	HP Compaq 6200 Pro MT PC

20	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	WIRELESS NETWORKS AND APPLICATIONS	POST GRADUA TE	COMPUTER NETWORKS LAB	Power Vault (TM) md1200 Disk Storage Enclosure, 2U
21	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	POST GRADUA TE	COMPUTER SCIENCE LAB	Optiplex 3010 MT N- Series Base
22	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	CONTROL & AUTOMATION LAB	Level Control trainer,Quanser Equipment,Quanser Qbot-2,NI Multisim software 14.1
23	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	HYBRID & ELECTRIC VEHICLES ENGINEERING	POST GRADUA TE	CONTROL & INSTRUMENTATIO N LAB	Temperature Measurement Trainer, Level Control Trainer (SCADA),Microcontrolle r Based Stepper Motor
24	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	CRYPTOGRAPHIC LAB	Power Vault Rack mount tape library, Computers
25	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	CYBER SECURITY LAB	Dell™ powerEdge™ R510 Rack Mount Server x8 Chasis HotPlug SERVER
26	ENGINEERI NG AND TECHNOLO GY	ELECTRONICS & COMMUNICAT ION ENGG	ELECTRONICS & COMMUNICATI ON ENGG	UNDER GRADUA TE	DIGITAL LAB	Digital Trainer Kit
27	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	ARTIFICIAL INTELLIGENCE	UNDER GRADUA TE	DIGITAL MANUFACTURING LAB	Prusa i3 Mk3s 3D printer
28	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	BIOMEDICIAL INSTRUMENTAT ION AND SIGNAL PROCESSING	POST GRADUA TE	DIGITAL SIGNAL PROCESSING	Dell Power Edge (TM) R515 Rack Mount Server
29	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	WIRELESS NETWORKS AND APPLICATIONS	POST GRADUA TE	DISTRIBUTED NETWORKS AND ALGORITHMS	Power Vault TL 2000 Rack Moun Tape Library with 1xLTO% SAS Drive
30	ENGINEERI NG AND TECHNOLO GY	ELECTRONICS & COMMUNICAT ION ENGG	ELECTRONICS & COMMUNICATI ON ENGG	UNDER GRADUA TE	DSP LAB	DSP Based VLSI Trainer Kit

31	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND COMPUTER ENGINEERING	UNDER GRADUA TE	ELECTRICAL MACHINES LAB	Rectifier ,DC Shunt Motor 7.5 hp coupled to 3 ph 5 KVA Alternator,3 phase variable Inductive load,MG
32	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	ELECTRICAL MEASUREMENTS LAB	National Instrument USB DAQ Device, NI Smart Camera, 1Phase Energy Meter, 3Phase Energy Meter
33	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	ELECTRICAL WORKSHOP	pcb manufacturing set up,LCR Meter
34	ENGINEERI NG AND TECHNOLO GY	ELECTRONICS & COMMUNICAT ION ENGG	ELECTRONICS & COMMUNICATI ON ENGG	UNDER GRADUA TE	ELECTRONIC CIRCUITS LAB	Power Supply,DSO,Function Generator,Cathode Ray Oscilloscope 30MHZ,
35	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	EMBEDDED SYSTEMS & ROBOTICS LAB	TPS2013B Oscilloscope,3 phase 4 leg semikron IGBT based Inverter,Four leg IGBT based VSI
36	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	EMBEDDED CONTROL SYSTEMS	POST GRADUA TE	ENERGY ENGINEERING LAB	Digital Oscilloscope,Electronic s Load,3 Phase IGBT Inverter, Power Quality and Energy Analyser
37	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	UNDER GRADUA TE	EPABX ROOM	MD 110 EPABX
38	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	EQUIPMENT REPAIR LAB	four channel DSO, Function Generator, 10A Power Supply.
39	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	THERMAL AND FLUID ENGINEERING	POST GRADUA TE	FLUID MECHANICS LAB	Francis Turbine Test Rig, Flow visualisation water channel, Pelton Turbine Test Rig

40	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	FLUID POWER LAB	F R Module,3/2 solenoid valve, 5/2 solenoid valve,single acting cylinder,double acting cylinder
41	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	GEOINFORMATI CS AND EARTH OBSERVATION	POST GRADUA TE	GEODESY LAB	DGPS, Total station, Drones
42	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	THERMAL AND FLUID ENGINEERING	POST GRADUA TE	HEAT & MASS TRANSFER LAB	Heat & Mass Transfer Lab
43	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING (ARTIFICIAL INTELLIGENCE)	UNDER GRADUA TE	INTERNET LAB	
44	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	IOT ENABLING AND SECURITY RESEARCH LAB	Servers, Workststion, Switches, Printers, Computers, Laptops etc
45	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	ISRO LAB	Processor:Intel(R)Core( TM)i5- 3470CPU@3.20GHzinst Id memry RAM:8.00GB Systemtype:64-bit OS x64-proces
46	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	KINEMATICS LAB	KINEMATICS KITS
47	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	WIRELESS NETWORKS AND APPLICATIONS	POST GRADUA TE	LANDSLIDE SIMULATION LAB	Landslide Simulator testbed, Honda soil compactor
48	ENGINEERI NG AND TECHNOLO GY	FIRST YEAR/OTHER	FIRST YEAR/OTHER	UNDER GRADUA TE	LANGUAGE LAB	
49	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	MACHINE DYNAMICS LAB	Machine Dynamics Lab

50	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	MANUFACTURING LAB	Universal Millling Machine, Pinacho Conventional Lathe 11 nos Slotting machine, Shaping machine,
51	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	MATERIAL TESTING LAB	Universal Testing Machine, Torsion Testing Machine
52	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	MEASUREMENT LAB	DIFFUSED LIGHT RESEARCH POLARISCOPE,PC based Temp measur RTD and Thermocouple,PC displacement LVDT
53	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	METALLURGY LAB	Trinocular Inverted Metallurgical Microscope
54	ENGINEERI NG AND TECHNOLO GY	ELECTRONICS & COMMUNICAT ION ENGG	ELECTRONICS & COMMUNICATI ON ENGG	UNDER GRADUA TE	MICRO PROCESSOR LAB	Microprocessor kit
55	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND COMPUTER ENGINEERING	UNDER GRADUA TE	MICROPROCESSOR AND MICOCONTROLLER LAB	PIC DVB with PICkit2Programmer,AR M processor embed prototyping kit,DsPIC Demo board,c2000 Launch Pad
56	ENGINEERI NG AND TECHNOLO GY	ELECTRONICS & COMMUNICAT ION ENGG	ELECTRONICS & COMMUNICATI ON ENGG	UNDER GRADUA TE	MICROWAVE LAB	MICROWAVE Test Bench
57	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	MIS RESEARCH LAB.	Humanoid Robot,3D Printer
58	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	UNDER GRADUA TE	MULTIMEDIA LAB	Digital Camcorder

59	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	POST GRADUA TE	NETWORK OPERATION CENTRE	Power Edge R910 Rack Mount Server Radware Linkproof 108 Dell™ Power Edge™ R810 Rack Mount Server
60	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	NETWORK SECURITY LAB	PowerEdge R520, PowerEdge R720 Computers
61	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	NETWORKING LAB	Palo Alto Networks PA - 500 Lab Unit
62	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	OPERATING SYSTEMS LAB	Computers
63	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	POST GRADUA TE	PG LAB 1	Lay out Kint mentor graphics software
64	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	GEOINFORMATI CS AND EARTH OBSERVATIONS	POST GRADUA TE	PG LAB 2	Network items and other
65	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	ROBOTICS AND AUTOMATION	POST GRADUA TE	PNEUMATICS & HYDRAULICS LAB	Pneumatic Training kit, Hydraulic training kit (Manual Type), Hydraulic Training kit (Electronic typ
66	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	POWER ELECTRONICS & ELECTRICAL DRIVES LAB	Power analyser, four channel DSO, Programmable dc power supply, Electronics load, PMSM Motor control
67	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	POWER SYSTEM LAB	COMPUTERS, NETWORK SWITCH, NETWORK ITEMS AND OTHERS

68	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND ELECTRONICS ENGINEERING	UNDER GRADUA TE	POWER SYSTEMS AND SIMULATION LAB	Relay Panel, Mipower Simulation Software package,ETAP Software,PSCAD/EMTD C Software,Bucholtz Relay
69	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	ARTIFICIAL INTELLIGENCE	POST GRADUA TE	RESEARCH ALB	PADS Layout 225 Kit mentor graphics Software (9,54,180),235MHz State, 512K Memory Depth (7,50,000),
70	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	POWER AND ENERGY ENGINEERING	POST GRADUA TE	RESEARCH AND COMPUTATION LAB	Programmable Load, Proteus 8, Microchip MPlab MINIDI 8.2, LT Spice,MATLAB
71	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	ELECTRICAL AND COMPUTER ENGINEERING	UNDER GRADUA TE	RESEARCH AND COMPUTATIONAL LAB	Programmable load
72	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	COMPUTER SCIENCE AND ENGINEERING	POST GRADUA TE	RESEARCH PG	Semi automatcic pick and place system 220 v for standard and fine pitch components
73	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	SMART SENSING COMMUNICATI ON AND NETWORKING TECHNOLOGIES	POST GRADUA TE	SECURITY IN WIRELESS NETWORKS	NI PXle National Instruments 3 pieces
74	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	WIRELESS NETWORKS AND APPLICATIONS	POST GRADUA TE	SMART ENERGY SYSTEMS LAB	Schneider and Maxim Smart Meters
75	ENGINEERI NG AND TECHNOLO GY	ELECTRICAL AND ELECTRONICS ENGINEERING	POWER AND ENERGY ENGINEERING	POST GRADUA TE	SMART GRIDS AND ELECTRIC VECHICLES RESEARCH LAB	Experimental setup for analysing communication protocols such as USART,I2C,SPI and CAN bus communica
76	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	SOPHOS NETWORK SECURITY LAB	Cyberoam CR100ING Unified Threat Management appliances x 4

77	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	CYBERSECURITY SYSTEMS AND NETWORKS	POST GRADUA TE	SUSTAINABLE COMPUTING LAB	Workstations, SourceMeter, ChipWhisperer, Arduino and Raspberry PI boards, Spartan 6 FPGA
78	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	MECHANICAL ENGINEERING	UNDER GRADUA TE	THERMAL ENGINEERING LAB	Steam Boiler, Steam Turbine Test Rig, Twin Cylinder 4 stroke, Three Cylender 4 stroke
79	ENGINEERI NG AND TECHNOLO GY	ELECTRONICS & COMMUNICAT ION ENGG	VLSI DESIGN	POST GRADUA TE	VLSI LAB	COMPUTERS, NETWORK ITEAMS AND OTHERS
80	ENGINEERI NG AND TECHNOLO GY	MECHANICAL ENGINEERING	THERMAL AND FLUID ENGINEERING	POST GRADUA TE	WIND TUNNEL LAB	Subsonic Wind Tunnel
81	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	WIRELESS NETWORKS AND APPLICATIONS	POST GRADUA TE	WINSOC LAB	
82	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	BIOMEDICAL INSTRUMENTAT ION AND SIGNAL PROCESSING	POST GRADUA TE	WIRELESS COMMUNICATION S	Emona DATEx Telecommunication Board for ELVIS
83	ENGINEERI NG AND TECHNOLO GY	COMPUTER SCIENCE AND ENGINEERING	WIRELESS NETWORKS AND APPLICATIONS	POST GRADUA TE	WIRELESS MULTIMEDIA LAB	Smart Board, XBox Kinnect, DJI Mavic Pro drone, DJI Tello drone