# TRINITY INSTITUTE OF INNOVATIONS IN PROFESSIONAL STUDIES
## Details of Labs / Workshops / Workstations Available

| S. No. | Name of Laboratory | Branch | Major Equipment | List of Equipment added during previous year |
|---|---|---|---|---|
| 1 | Workshop | First Year Common Lab | Hand and Foot Shearing Machine, Snip, Power Hecksaw, Circular Saw, Wood Lathe, Shaper, Sheet rolling, Radial & Pillar Drilling, Centre Lathe 4-JAW CHUCK, Mallet Hammer, Bench Vice, Wire Gauge, Wooden Lathe Machine, Hand Rip Saw, Rasp File, Iron Jack Planer, Chisel, Arc Welding Machine, Gas Welding Machine, Electrode, Chipping Hammer, Scriber, Centre Punch, Divider, Calliper, Drill Tool, Tap Tool, Files, Hacksaw, Lathe Machine, Drilling Machine, Shaper Machine, Milling Machine, Grinding Machine, Vernier Calliper, Single Point Cutting Tool, Knurling Tool, Universal Surface Gauge | Consumable Items |
| 2 | Engineering Graphics Lab | First Year Common Lab | Drafting Board with Truffels, Models, etc. | Consumable Items |
| 3 | Chemistry Lab | First Year Common Lab | Analytical Balance, Fraction Weight Anchor, Water Bath, Hot Plate, Lab Oven, Digital PH Meter, Digital Calorie Meter, Glassware, Digital Turbidity Meter, Dessicator, Digital TDS Meter, Digital DO Meter, COD Digesters with glass parts, etc. | Chemicals, Lab Coats, Acid Proof Gloves |
| 4 | Physics Lab | First Year Common Lab | Newton Ring Setup, Katers Pendulum, Melde Method, Diffraction Grading, Optical Fibre Test, Carey Foster Test, Holding Electromagnet, Holding Platinum Thermometer, Sodium Lamps, Spectrometers, Prisms, Helium Neon Laser, Difraction Grating, etc. | Bar Magnets, CRO, Function Generator, Stand for Holding Electromagnet, Stefan Constant Setup, Energy Band Gap Apparatus, Stand for Holding Platinum Thermometer, Plano Convex Lens, Prisms, Electronic Weighing Scale |
| 5 | Engineering Mechanics Lab | First Year Common Lab | Impact Testing Machine, Digital Rockwell Machine, Universal Testing Machine, Centre Lathe Machine, Weights, Hangers, Spirit Level, Pulleys, Weighing Scale, Loads, Jib Crane Apparatus, Sets of Weights, Screw Jack Apparatus, Vernier Calliper, Wheel and Axle Apparatus, Worm and Worm Wheel Apparatus, UTM, IZOD Impact Test, Brinell Hardness Test, Models for IC Engines (Petrol & Diesel), Force Polygram Test, Mement of Inertia Test, Facial Test, Fiction Test, Fly Wheel Test, Simple and Compound Gear | Universal Force Table, Coefficient Of Friction Apparatus, Inclined Plane Apparatus, Sliding Box with Different Surfaces, Slotted and Conical Weights, Parallel Force Apparatus |
| 6 | Electrical Engineeirng Lab | First Year Common Lab | CRO, Function Generator, Single Switch & Two-way Switch Lamp, Training Kit Thevenin's Theorem & Norton's Theorem Training Kit, Superposition Theorem, Reciprocity Theorem Training Kit, Panel for Single Phase Transformer- O.C. & S.C. Test, Panel for measurement of 3-phase power using two wattmeter & Measurement of power factor, Resonance in a Series R-L-C & Parallel R-L-C Circuits Training Kit, 1-phase transformer, Panel for Speed Control of DC Shunt Motor, DC Shunt Motor, Voltmeter, Ammeter, Wattmeter, Panel for running & reversal of 3-phase induction motor, 3-phase induction motor, Three phase resistive load | |
| 7 | Electronics Devices Lab | First Year Common Lab | CRO, Function Generator, Bread Board Kits, Active and Passive Components Training Kit, Semiconductor Diode Kit, Static & Dynamic Resistance, Zener Diode Training Kit, Ractifier Circuit Kit, CB and CE Transistor kit, Logic Gates Training Kit | CRO, Function Generator & Consumable Items |
| 8 | Language Lab | Common | Computer Systems, Switch, UPS, Headphones | |
| 9 | Computer Graphics & Multimedia Lab | Computer Science and Engineering | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 10 | Simulation & Modelling Lab | Computer Science and Engineering | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 11 | Analog Electronics Lab | Electronics and Communications Engineering | FET (BFW-10), MOSFET (P-Channel, N-Channel), SCR (TYN 616), UJT (2N 2646), IC-741, 555 Timer, AM & FM Generator, PLL (LM565), Regulated Power Supply, Bread Board Kits | FET (BFW-10), MOSFET (P-Channel, N-Channel), SCR (TYN 616), UJT (2N 2646), IC-741, 555 Timer, AM & FM Generator, PLL (LM565), Regulated Power Supply, Bread Board Kits |

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|---|---|---|---|---|
| 12 | Electronics Instruments Measurement Lab | Electronics and Communications Engineering | Digital Multi-meter, Clamp Meter, Digital Frequency Meter, Universal Frequency Meter, DSO, Wave Analyzer, ADC (ADC0808), DAC (DAC0808), Regulated Power Supply, CRO, Function Generator, Bread Board Kit | Digital Multi-meter, Clamp Meter, Digital Frequency Meter, Universal Frequency Meter, DSO, Wave Analyzer, ADC (ADC0808), DAC (DAC0808), Regulated Power Supply, CRO, Function Generator, Bread Board Kit |
| 13 | Programming Lab "C" | Information Technology | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 14 | Data Structures & Algorithm Lab | Information Technology | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 15 | Software Engineering Lab | Information Technology | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 16 | Digital Systems Design Lab | Electronics and Communications Engineering | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 17 | Microprocessor and Microcontroller Lab | Computer Science and Engineering | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 18 | Linux Lab | Computer Science and Engineering | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 19 | Data Communication and Networking Lab | Information Technology | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 20 | Algorithms Design and Analysis | Engineering and Technology | Turbo C ++ software (free/open source) | NA |
| 21 | Java Programming | Engineering and Technology | JDK latest version and version below 8, | NA |
| 22 | Software Engineering Lab | Information Technology | Computer Systems, Switch, UPS | Computer Systems, Switch, UPS |
| 23 | Digital Communication | Engineering and Technology | Oscilloscope- 20MHz- Dual channel/DSO, PCM Trainer kit, Jumper wires., MATLAB software | NA |
| 24 | Digital Signal Processing | Engineering and Technology | DSO (100MHz200 MHz,2 channels),DM 64X Media Development Kit, DSP Starter Kit, Digital video s\w Development board/ Matlab based | NA |
| 25 | Microprocessors and Microcontrollers | Engineering and Technology | Keil software / Logic Analyzer, Mixed Signal Oscilloscope , Cyberbot (M4) High Performance Robot Kit, EWB Suit, Micro Tutor University program for ARM Lab. Educational Practice Boards, NI ELVIS / PCI – 6251, NI FPGA Based Embedded control System | NA |
| 26 | Print Media Lab | BAJMC | Computer Systems, Switch, UPS, Printer | |
| 27 | Video and Audio Studio | BAJMC | Vision Mixer & Audio Mixer (Console), Microphones, DSLR Cameras, Video Camera, Lapel, Talk Back, Output Monitor, Teleprompter, Computer Systems | Vision Mixer & Audio Mixer (Console), Microphones, DSLR Cameras, Video Camera, Lapel, Talk Back, Output Monitor, Teleprompter, Computer Systems |
| 28 | Computer Lab | BALLB | Computer Systems, Switch, UPS, Printer | |
| 29 | Web Technologies | Computer Application | BROWSER | NA |
| 30 | IT LAB | Computer Application | MS OFFICE | NA |
| 31 | Information Security Lab | Computer Science and Engineering | Computer Systems, Switch, UPS | NA |
| 32 | Software Testing and QA Lab | Computer Science and Engineering | Computer Systems, Switch, UPS, HDD: 1 TB | NA |
| 33 | Wireless Communication Lab | Computer Science and Engineering/IT | Computer Systems, Switch, UPS, Spartan 3E Kit, Vertex 2 Pro Development Kit, CPLD  Kit, Burner Kit, Free Scale | NA |

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|---|---|---|---|---|
| 34 | Lab based on Elective I or II | Computer Science and Engineering/IT | Computer Systems, Switch, UPS | NA |
| 35 | Advanced Computer Networks Lab | Computer Science and Engineering/IT | Computer Systems, Switch, UPS | NA |
| 36 | Cryptography and Network Security Lab | Computer Science and Engineering/IT | Computer Systems, Switch, UPS | NA |
| 37 | Mobile Computing Lab | Information Technology | Computer Systems, Switch, UPS | NA |
| 38 | Machine Learning Lab | Information Technology | Computer Systems, Switch, UPS, HDD- 1TB | NA |
| 39 | Ad hoc and Sensor Networks Lab | Information Technology/ECE | Computer Systems, Switch, UPS, WANET LAN, wireless router | NA |
| 40 | Optical and Wireless Communication Lab | Electronics and Communications Engineering | Computer Systems, Switch, UPS, Spartan 3E Kit, Vertex 2 Pro Development Kit, CPLD  Kit, Burner Kit, Free Scale | NA |
| 41 | Embedded System Lab | Electronics and Communications Engineering | Computer Systems, Switch, UPS | NA |
| 42 | Satellite and Antenna Lab | Electronics and Communications Engineering | Computer Systems, Switch, UPS, Polarization kit with handle, Antenna with cable set (1.2GHz), Dual DC Power Supply, Conical horn antenna, Microwave Signal Generator(1GHZ-20GHz), USB Power sensor(4 GHz) | NA |
| 43 | Lab based on Elective I or II | Electronics and Communications Engineering | Computer Systems, Switch, UPS | NA |