

Facilities Available for Research

Name of Lab	No of Systems	Name of the important Equipment	Technical Manpower Support in addition to Research Faculty members		
			Name of technical Staff	Designation	Qualification
LH 11	70	Intel® Core™ i5-7500 CPU @ 3.40GHz × 4 / 1 TB/(16 GB/8GB)	MUNIGANTI SRINIVAS	SR. LAB ASSISTANT	M.TECH (CSE)
LH 12	66	Intel® Core™ i5-6500 CPU @ 3.20GHz 3.19GHz/1 TB/8 GB	SAMA SUDHEER REDDY	LAB ASSISTANT	M.TECH (CSE)
Language Lab	59	Intel ® Core™ i5-4590 CPU@ 3.30GHz, 3301MHz,4 Cores(S),4 Logical Pro/ 1 TB/8 GB	MUNIGANTISRINIVAS	SR. LAB ASSISTANT	M.TECH (CSE)
			SAMA SUDHEER REDDY	LAB ASSISTANT	M.TECH (CSE)
			CHANDRAKALA SHARMA	LAB ASSISTANT	B.TECH (IT)
Computer Center	41	Intel®Core™ i5-4570CPU@3.20 GHz/500_GB/4 GB	ASHISH KUMAR ROY	LAB ASSISTANT	B. Tech (Electronics Engineering)

Name of the laboratory	Name of the important equipment	Technical man power support		
		Name of the technical staff	Designation	Qualification
Surveying	<ul style="list-style-type: none"> • Prismatic compass • Plane table • Theodolite • Dumpy level • Auto level • Total station • GPS instrument 	Mr. A.V. Chaitanya	Lab assistant	B.Tech.
Concrete Technology	<ul style="list-style-type: none"> • Compression Testing Machine • Rebound hammer • Vibrating table • Accelerating curing tank • Concrete mixer drum type 1 m³ capacity • Universal Testing Machine • Vee-Bee consistometer • Vibrating table • Vicat apparatus • Slump cone apparatus • Flow table 	Mr. A.V. Chaitanya	Lab assistant	B.Tech.
Fluid mechanics and Hydraulics, Hydraulic Machinery	<ul style="list-style-type: none"> • Pelton wheel • Centrifugal pump • Reynold's number • Notches • Pipe friction apparatus • Bernouli's Equipment • Orifice and Venturimeter • Pipe fitting 	Mr. K.Satyam Naidu	Lab assistant	M. Tech

	<ul style="list-style-type: none"> • Pitot tube 			
Soil mechanics	<ul style="list-style-type: none"> • Unconfined compression testing apparatus • Permeability Testing apparatus • Consolidation Testing apparatus • CBR apparatus • Direct shear testing apparatus • Relative density apparatus 	Mr. A.V. Chaitanya	Lab assistant	B.Tech
Computer aided drafting/drawing	<ul style="list-style-type: none"> • Auto CAD 2019 Software • CORE™ i5-6500 Systems with 1TB • HDD and 8GB RAM 	Mrs. T. Bindu Madhavi	Lab assistant	B .Tech.
Transportation Engineering	<ul style="list-style-type: none"> • Abrasion testing machine • Penetration testing apparatus • Ductility testing machine • Universal water bath • Marshall stability apparatus • Impact testing machine 	Mr. K. Satyam Naidu	Lab assistant	M. Tech
Environmental Engineering	<ul style="list-style-type: none"> • Spectrophotometer • COD heater block • Portable DO meter • Jar test apparatus • Hot air oven • Multiparameter water quality meter • Digital BOD incubator 	Mrs. T. Bindu Madhavi	Lab assistant	B. Tech
Computing lab	<ul style="list-style-type: none"> • STADD PRO CONNECT V22 • Auto CAD 2019 Software 	Mr. K. Satyam Naidu	Lab assistant	M. Tech
Advanced Geotechnical Laboratory	<ul style="list-style-type: none"> • Large scale testing Frame (Compression and tension load); • Dynamic cone penetrometer, • modified light weight Deflectometer • Plaxis 2D software 	Mr. A.V. Chaitanya	Lab assistant	B.Tech

Advanced Concrete technology Laboratory	<ul style="list-style-type: none"> • Compression Testing Machine with controls (Capacity 3000 kN) • Flexural Testing Machine with controls (Capacity 200 kN) 	Mr. K. Satyam Naidu	Lab assistant	M.Tech
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Name of the Laboratory	Name of the Important Equipment	Technical Manpower Support		
		Name of the Technical Staff	Designation	Qualification
Basic Electrical Engineering Lab (2 Nos)	<ul style="list-style-type: none"> • Oscilloscope • Bench multimeter i dm 201 n • Tg 120 function gen • Adjustable power supply • Single phase transformer • Hand held air blower(wolf make) • LED TV samsung 45" • Digital Storage Oscilloscope 50 mhz: 1GS/s:2 ch 2.5K record Length- Model TBS1052B-EDU 	Mr. Akhilesh Pandey	Lab Assistant	B.Tech
		Mr. Rakesh	Lab Assistant	B.Tech

	<ul style="list-style-type: none"> • Digital Storage Oscilloscope 70 mhz: 1GS/s:2 ch 2.5K record Length- Model TBS1072B-EDU • Digital Storage Oscilloscope 200 mhz: 1GS/s:2 ch 2.5K record Length- Model TBS1202B-EDU • Arbitrary/Function Generator: 2Chl:125MS/s: 25mhz Sine Waveform:14-bits:3.9 color LCD 2U half rack: USB Host/Device- Model: AFG1022 • Arbitrary/Function Generator: 2Chl:125MS/s: 25mhz Sine Waveform:14-bits:3.9 color LCD 2U half rack: USB Host/Device- Model: AFG1022 • Computer 			
Electrical Machines Lab	<ul style="list-style-type: none"> • 5HP3PHASESLIPPERINGMOTER • 3 phase squirrel cage induction motor • Rheostat 1000 ohm/2A • Rheostat 220 ohm/2A • Rheostat 350 ohm/2A 	Mr. Bharatlal rai	Lab Assistant	B.Tech

	<ul style="list-style-type: none">• Rotor resistance stater• Star Delta Stater• Synchronising panel• Voltmeter 0-30V AC• Voltmeter 0-300V AC• Voltmeter 0-600V AC• Wattmeter3ph 2E600V/10A• Wattmeter 300V/10A• Wattmeter300V/10A UPF• 2 point stater• 3 Point Stater• 5HP DC Motor with 3PH Alternater• 5HP DC Shunt Motor with Generator• AMMETER0-15A• AMMETER0-2.5/5A• Auto Transfomer 10A			
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	<ul style="list-style-type: none">• Auto Transformer 20A with Bridge Rectifier• Dc Series Motor 5HP• DPST Switch• Hylem Sheet with Accy• Rheostat 1PH 3KW• Rheostat 3PH 2kw• Rheostat 3PH 3kw• Ammeter 0-10 A AC• Ammeter 0-2A DC• Ammeter 0-30A DC• TRANSFORMER 3PH 2KVA• DIGITAL WATTMETER(Schneider)• DIFFERENTIAL PROBE• AC/DC CURRENT CLAMP• ANALOG MULTIMETER• INDUCTOR COIL 0.15H - 1.4 H			
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	<ul style="list-style-type: none"> • Rheostat 50 ohms 5A • Variable Transformer 0-250V AC • DC MOTER 1HP,4A • 3 PH Inductions Motor,0.75 KW-1.8 A • DIGITAL MULTIMETER 4&1/2 • TRANSFORMER 1HP0.75 kw,200-240V AC 			
Power Electronics Lab	<ul style="list-style-type: none"> • Dual Power Supply • Oscilloscopes • Differential Probes • Function generator • DC DC converters • DC AC Inverters • Computers • MATLAB software • LABVIEW software 	Mr.Babu ram dash and Mr. B M Hazari	Lab Assistants	B.Tech

	<ul style="list-style-type: none"> • PLEXIM 			
Advanced Electronics Lab	<ul style="list-style-type: none"> • Dual regulated power supply • Single channel power supply • Digital storage oscilloscope • Dual channel function generator • Digital multimeter • Analog multimeter • Analog system lab kits • Project bread board kits • Bread boards 	Mr. Muragaiah	Lab Assistant	Diploma
Digital Electronics & Microprocessor	<ul style="list-style-type: none"> • Computers • 8085 Based Advance Microprocessor Trainers Kits • 8086/8088 based Advance Microprocessor- 	Mr. A. Rajesh Yadav	Lab Assistant	B.Tech

Lab	<ul style="list-style-type: none">• 8255 study Card Interface• 8259 Study Card Interface• 8channel 12 bit ADC Interface without Mux• Stepper Motor Interface with Stepper motor-3No's• Dual DAC interface-3No's• Raspberry pi 3bmodel• Altea DE2-115 Educational and development kit Board• 8051 Microcontroller Trainers kit• STM-32F303 Nucleo• Arduino uno• Sim900A• Xbee S2c• Xbee USB Host –• 20*4 LCD• 16*2 LCD -			
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	<ul style="list-style-type: none"> • Ultrasonic HRSO4 - • MG996 SERVO MOTOR • Stepper Motor - 18 No's 			
Wireless Innovation & 5G Lab	<ul style="list-style-type: none"> • WSN-iOT Testbed for 5G • Lime SDR with Firmware & Gateware Updates • LTE Band 7 Duplexer • Lime SDR Case • UFL to SMA Cable • SMA Cable male to female • SMA Connector male to female • Female USB 3.0 tp male 3.0 with Y splitter • 50Hz-6GHz Telescopic Antenna • ACS 4G- LTE sim card Reader/ Writer • 4G LTE blank sim card • Huawel E938U 4G Dongel 	Dalbir Singh	Lab Assistant	B.Tech

	<ul style="list-style-type: none">• Sim card Writer software• 10A Lenovo power bank• Logitech C270 Web Cam• Mobile phone power bank• Bread Board• 5NR-iOT Bridge• Samsung S6 Edge Smart –Phone Compatible with 5 nines radio• RSA –DKIT 306• CPU& Monitors -06• NI USRP-2901, 2 channel 70 MHz to 6 GHz• USRP24W power supply• Tri band 7 inch vertical Antenna• 2.4 & 5 GHz Dual band vertical antenna• 824-960MHz Antenna			
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	<ul style="list-style-type: none"> • CPU & Monitor s-02 			
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Name of the Laboratory	List of important equipment	Technical manpower support		
		Name of technical staff	Designation	Qualification
Mechanical Workshop (including benchwork and fitting, carpentry, sheet metal work, welding, turning, milling, drilling, and tapping for workshop practice)	Lathe, Manek make, 250 mm swing Turret mill, Falcon make, model FM-2S, Metal working lathes, Osaki make, model MML300 Metal working mill cum drills, Osaki make, model MMD250 Double column band saw, Krishna make, model KE Vertical band saw, Metabo make, model BAS 260 Swift Pillar type drilling machines, Sohit make - model MEW20, Kobe make - model DPB350, Osaki make - model PDB132 Grinders, Kobe Industrial Power Tools make, SKIL make & Bosch make, model GBG8 Professional Arc welders: AdorFontech make, model Tornado 401 & Taylor make model Arc200G	Mr. G. M. Reddy Mr. K. N. Rao Mr. R. N. Rao	Laboratory Assistant Laboratory Assistant Laboratory Assistant	DME ITI DEE & ITI

	<p>Oxy-acetylene welding kit</p> <p>Industrial shears, Atlas make, model BS120</p> <p>Power tools: Planer, Jigsaw, Cutting machine, and Drill</p> <p>Anvils and Swage Blocks</p> <p>Bench vices, Universal vices, Carpenter vices, Drill press vices, Milling vice</p>			
<p>Manufacturing and Metrology Laboratory</p>	<p>CNC Lathe - Lokesh make - model TL200</p> <p>CNC milling machine - BFW make - model Chandra</p> <p>CNC milling machine - Intelitek make - model Benchmill 6000</p> <p>CNC milling machine, Intelitek make, model Promill 8000</p> <p>Injection molding machine, All Plast make, model ABST-60</p> <p>Shared conventional machines listed under workshop equipment</p> <p>Granite surface plates, Height gage & Spirit levels</p> <p>Vernier calipers, Steel rules, micrometers & bore gages</p> <p>Sine bar & Bevel protractor</p>	<p>Mr. G. M. Reddy</p> <p>Mr. K. N. Rao</p> <p>Mr. R. N. Rao</p>	<p>Laboratory Assistant</p> <p>Laboratory Assistant</p> <p>Laboratory Assistant</p>	<p>DME</p> <p>ITI</p> <p>DEE & ITI</p>

	<p>Gear caliper</p> <p>Cutting tools for turning, milling, drilling, threading & knurling</p> <p>Slip gage set, thread gages, three wire sets, dial indicator, magnetic stand, parallel blocks, fixturing and work holding sets, V-block, edge finder, Tri-squares & scriber</p> <p>Hand tool sets including wrenches, pliers, calipers, hammers, bolt cutter, etc.</p> <p>Portable surface roughness tester & comparator type surface roughness gage</p> <p>Soldering irons</p>			
<p>Mechanical Laboratory (Thermal engineering, Theory of Machines, Fluid mechanics and Fluid machinery)</p>	<p><u>Thermal engineering:</u></p> <p>Stephen Boltzmann apparatus</p> <p>Forced convection apparatus</p> <p>Natural convection apparatus</p> <p>Thermal conductivity (metal rod) apparatus</p> <p>Heat transfer from a pin fin</p> <p>Window Air-conditioning trainer</p> <p><u>Theory of Machines:</u></p> <p>Universal vibration apparatus</p>	<p>Mr. G. M. Reddy</p> <p>Mr. K. N. Rao</p> <p>Mr. R. N. Rao</p>	<p>Laboratory Assistant</p> <p>Laboratory Assistant</p> <p>Laboratory Assistant</p>	<p>DME</p> <p>ITI</p> <p>DEE & ITI</p>

	<p>Universal governor apparatus</p> <p>Motorized gyroscope</p> <p>Static and Dynamic balancing equipment</p> <p><u>Fluid mechanics & fluid machinery:</u></p> <p>Venturimeter, orificemeter& rotameter apparatus</p> <p>Bernoulli's theorem apparatus</p> <p>Pitot static tube apparatus</p> <p>Orifice & mouthpiece apparatus</p> <p>Pelton wheel turbine test rig</p> <p>Centrifugal pump test rig</p> <p>Working models of machine elements are located in the manual drawing laboratory and listed under the Design and Drawing Laboratory section of this document</p>			
<p>Materials Testing and Characteri-zation Laboratory</p>	<p><u>Hardness testing:</u></p> <p>Rockwell hardness tester</p> <p>Brinell hardness tester</p> <p>Vickers hardness tester</p> <p><u>Tensile and impact testing:</u></p>	<p>Mr. N. Mannepalli</p>	<p>Laboratory Assistant</p>	<p>DME</p>

	<p>Universal testing machine Instron make, model 5969</p> <p>Charpy impact testing machine</p> <p><u>Metallographic testing:</u></p> <p>Precision high speed saw with diamond wafering blade for metallographic sample cutting, Metco make, model Baincut-HSS</p> <p>Sample mounting press Metco make, model Bainmount</p> <p>Double disc variable speed sample grinder/polisher, Metco make, model Bainpol</p> <p>Metallurgical microscope, model Metascope T1600, magnification 50X to 1000X</p>			
<p>Finite Element Analysis Laboratory</p> <p>and</p> <p>CAD Laboratory</p>	<p>Desktop computers (LH 12): 65 Nos.</p> <p>ANSYS software: 100 Academic licences</p> <p>AutoCAD Inventor 3D software: No limit Academic licences</p> <p>MATLAB software: No limit Academic licences</p> <p>HP Laser jet M700 A3 size printer and Epson make overhead projector</p>	<p>Mr. B.N.S. Chouhan</p> <p>Sub. P. K. Paruchuri</p>	<p>Laboratory Assistant</p> <p>Laboratory Assistant</p>	<p>B.Tech</p> <p>DP</p>
<p>Design Laboratory and Engineering Drawing Laboratory</p>	<p><u>Design Laboratory:</u></p> <p>3D printer Makerbot make</p>	<p>Mr. B.N.S. Chouhan</p>	<p>Laboratory Assistant</p>	<p>B.Tech</p>

	<p><u>Engg drawing laboratory:</u></p> <p>Drawing boards: 69 seats</p> <p>The following models of machine elements are also housed in this location:</p> <p>Spur Gear Trains, OSW make, model SMM201</p> <p>Crank Drive, OSW make, model SMM202</p> <p>Cam Drive, OSW make, model SMM203</p> <p>Friction Wheel and Clutch, OSW make, model SMM204</p> <p>Clutch Drive, OSW make, model SMM205</p> <p>Belt Drive, OSW make, model SMM206</p> <p>Belt Type, OSW make, model SMM207</p> <p>Linkage Gears, OSW make, model SMM208</p> <p>Linkage Gears, OSW make, model SMM209</p> <p>Special Gears, OSW make, model SMM210</p> <p>Internal Gear, OSW make, model SMM211</p> <p>Internal Gear, OSW make, model SMM211</p> <p>Differential Gear, OSW make, model SMM213 & 318</p>	<p>Sub. P. K. Paruchuri</p> <p>Mr. S. Baisetty</p>	<p>Laboratory Assistant</p> <p>Laboratory Assistant</p>	<p>DP</p> <p>DME</p>
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<p>Robotics Research Laboratory</p>	<p>Six Axis Manipulator, ABB make, model IRB1200</p> <p>Selective Compliance Assembly Robot Arm (SCARA), ABB make, model IRB 910SC</p> <p>4-Axis educational Robot, DOBOT make, model Magician</p> <p>3-D Single extrusion printer for Rapid Prototyping, Ultimaker make, model 2+</p> <p>Mobile Robots Platform, manufactured by MU</p>	<p>Dr. Deep Seth</p>	<p>Faculty</p>	<p>PhD</p>
<p>Fluidics and Heat Transfer Research Laboratory</p>	<p>Fluid flow supply system - micro syringe pump</p> <p>Digital differential pressure measurement instrument</p> <p>IR Thermal camera</p> <p>Labjack - DAQ system</p> <p>Testo 405i - thermal anemometer with smartphone operation</p> <p>Pitot tube</p> <p>Digital flow measuring sensor</p> <p>K- type Thermocouple</p> <p>Humidity sensor</p>	<p>Dr. Manish</p>	<p>Faculty</p>	<p>PhD</p>
<p>Electric Vehicle Research Laboratory</p>	<p>Ebike kit</p> <p>Egolf cart</p>	<p>Mr. S. Baisetty</p>	<p>Laboratory Assistant</p>	<p>DME</p>

	SkyRC battery tester IR Thermal camera Labjack data acquisition system Motor load test rig 5 hp Battery cycle tester 1 kW			
High Performance Computing Laboratory	Dell PowerEdge R430 Servers: 2 Nos DELL PowerEdge R440 Servers: 2 Nos.	Mr. Aman	System Administrator	B.Tech
Tribology and Materials Research Laboratory	Rotary Tribometer: Pin on Disc type tester, Ducom Instruments make, model TR-20LE-PHM-CHM40C Mixer cum extruder, Phoenix Advanced Materials make, model Sigma Oven, Phoenix Advanced Materials make	Dr. Palash Roy Choudhury	Faculty	PhD.
Automotive Systems Laboratory	Motorized Cut Section of a Heavy (31 tonne) Truck Drivetrain (chassis mounted) Light Truck Chassis and Drivetrain Stand Mounted Truck Cabin (for interior study) 50 tonne Mahindra Navistar Truck (driveable)	Dr. Prasad Pokkuni	Faculty	PhD.