List of Research Facilities

Research Facilities

The institute has research facilities to carry out scientific research. The research facilities are updated frequently, and a well-defined policy is in place to promote research. The institute has constituted Research Committee which oversees all activities related to research facilities and promotion. Institute has provided good infrastructural facilities to all departments where modern computers with internet and Wi-Fi and recent updated software's have been installed. Three Departments are recognized as the Research Centre by the JNTUK and are equipped with research facilities. These facilities can be utilized by the researchers/ scholars of other institutes.

S. No	Name of the Department	Name of the Laboratory	Name of the Facility
1.	Civil Engineering	Concrete Lab (Room No: BGB-022)	i. Electrical Curing Tank ii. universal testing machine iii. Compression testing machines iv. Tri axial Shear testing Machine
		Geotechnical Engineering (Room No: BGB-012)	i. Permeability Apparatus ii. Specto photometer
		Environmental Engineering (Room No: BGB-009)	i. pH Meter ii. BOD iii. COD
2.	Electrical & Electronics Engineering	Network Analysis Lab (Room No: KLB-209)	i. Dielectric Oil Testing
		Power Converters and Drives Lab (Room No: KLB-207)	i. Three Phase SVPWM Pulse generator using PIC Control ii. DSP based V/F control of AC Motor iii. PIC Microcontroller based speed control of AC Motor
		Power Systems Laboratory (Room No: KLB-207)	i. Fault Analysis of Synchronous Machine ii. Sequence Impedance of Alternator iii. Integrated Machine

3.	Mechanical Engineering	Metallurgy and Material Science (Room No: KLB-107)	Mertzer Optical Microscope
		Thermal Engineering (Room No: KLB-006)	i. Redwood Viscometer - Digital ii. Saybolt Viscometer - Digital iii. Bomb Calorimeter – Digital
		3D Printing (Room No: KLB-102)	i. Hydra 250-Pro Single extruder with heated bed ii. Pramaan 250-Pro Dual extruder with heated bed
4.	Electronics & Communication Engineering	Project Lab (Room No: CB-109)	i. Cadence Design Tool ii. Intelligent System Design iii. Mentor Graphics iv. Xilinx FPGA v. SoC boards
		Research Lab (Room No: CB-206)	i. EM Cube Simulation suite ii. Antenna Measurement & Analysis Suite iii. RF Vector Network Analyzer iv. PC based motorized antenna trainer v. Doppler Radar Trainer vi. Satellite Trainer System
		DSP Lab (Room No: CB-101)	i. MATLAB ii. Visual Studio iii. CC Studio iv. DSP Development Kit v. Digital Video Platform with NTSC/PAL Cam.
5.	Computer Science and Engineering	Computer Lab (Room No: BGB-026)	i. Tableau ii. Rapid miner iii. Open software's like python, R-Studio, WEKA, Orange
6.	Petroleum Technology	Petroleum Reservoir Engineering Lab (Room No: KLB-308)	i. Darcy flow apparatus
		Instrumentation Process Dynamics and Control Lab (Room No: KLB-308)	i. PC based feedback Flow, Level, Pressure, Temperature Control Trainer ii. Control Valve Characteristics

Department of Civil Engineering

Research Facilities

S. No	Name of the Laboratory	Name of the Facility
1	Concrete Lab (Room No: BGB-022)	i. Electrical Curing Tank ii. universal testing machine iii. Compression testing machines iv. Tri axial Shear testing Machine
2	Geotechnical Engineering (Room No: BGB-012)	i. Permeability Apparatus ii. Specto photometer
3	Environmental Engineering (Room No: BGB-009)	i. pH Meter ii. BOD iii. COD

Geotagged photos of Research facilities

Electrical Curing Tank
Make and Model: AIML Ltd. and AIM 335-1A03
Cost: Rs. /-1,42,516
Year of Purchase:2016

Universal Testing Machine
Make and Model: AIMIL and AIM653-1
Cost: Rs. 13,80,000/-
Year of Purchase: 2019

Compression Testing Machine
Make and Model: AIML Ltd. and AIM 320E-FA-03
Cost: Rs. 7,14,192 /-
Year of Purchase: 2020

Tri axial Shear testing Machine
Make and Model: AIMIL and AIML-095
Cost: Rs. 2,44,545/-
Year of Purchase: 2012

Permeability Apparatus
Make and Model: AIMIL and AIML-131
Cost: Rs. 19,603/-
Year of Purchase: 2012

UV-Spectro Photo Meter
Make and Model: Lamatte spector
Cost: Rs. 1,94,000/-
Year of Purchase: 2013

pH meter
Make and Model: IR-50
Cost: Rs. 9000/-
Year of Purchase: 2018

BOD Incubator
Make and Model: Ria Instruments
Cost: Rs. 1,15,000/-
Year of Purchase: 2013

C.O.D heater block
Make and Model: Wealtec corporation
Cost: Rs. 84,000/-
Year of Purchase: 2013

Department of Electrical & Electronics Engineering

Research Facilities

S.No	Name of the Lab	Name of the Facility
1	Network Analysis Lab (Room No: KLB-209)	i. Dielectric Oil Testing
2	Power Converters and Drives Lab (Room No: KLB-207)	i. Three Phase SVPWM Pulse generator using PIC Control ii. DSP based V/F control of AC Motor iii. PIC Microcontroller based speed control of AC Motor
3	Power Systems Laboratory (Room No: KLB-207)	i. Fault Analysis of Synchronous Machine ii. Sequence Impedance of Alternator iii. Integrated Machine

Geotagged photos of Research facilities

Dielectric Oil Testing
Make and Model: Delta Tech Systems, Bangalore
Cost: Rs. 36000/-
Year of Purchase: 2019

Three Phase SVPWM Pulse Generator using PIC Control
Make and Model: Delta Tech Systems, Bangalore
Cost: Rs.118500/-
Year of Purchase: 2019

DSP Based V/F control of AC Motor
Make and Model: Delta Electro systems, Hyderabad
Cost: Rs.61500/-
Year of Purchase: 2011

PIC Microcontroller Based speed control of AC Motor
Make and Model: Delta Electro systems, Hyderabad
Cost: Rs.61000/-
Year of Purchase: 2011

Fault Analysis of Synchronous Machine
Make and Model: Delta Electro systems, Hyderabad
Cost: Rs.152700/-
Year of Purchase: 2016

Sequence impedance of Alternator
Make and Model: Delta Electro systems, Hyderabad
Cost: Rs.153230/-
Year of Purchase: 2016

Sequence impedance of Alternator
Make and Model: Delta Electro systems, Hyderabad
Cost: Rs.273230/-
Year of Purchase: 2016

Department of Mechanical Engineering

Research Facilities

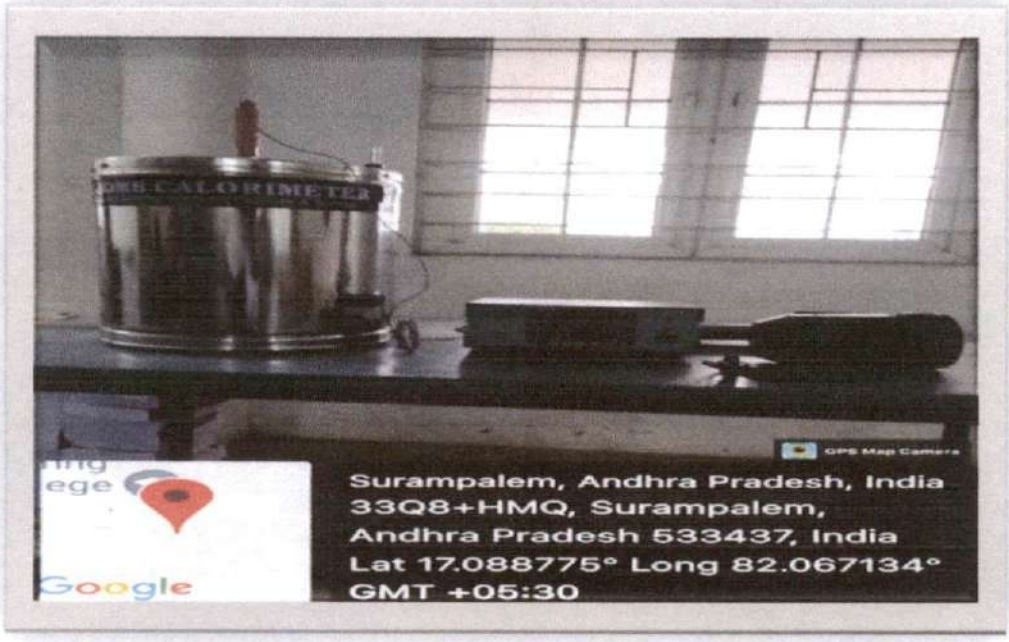
S.No	Name of the Lab	Name of the Facility
1	Metallurgy and Material Science (Room No: KLB-107)	Mertzer Optical Microscope
2	Thermal Engineering (Room No: KLB-006)	i. Redwood Viscometer - Digital ii. Saybolt Viscometer - Digital iii. Bomb Calorimeter – Digital
3	3D Printing (Room No: KLB-102)	i. Hydra 250-Pro Single extruder with heated bed ii. Pramaan 250-Pro Dual extruder with heated bed

Geotagged photos of Research facilities

Mertzer Optical Microscope
Make and Model: Mertzer.
Cost: Rs. 1,50,000/-
Year of Purchase: 2018

Redwood Viscometer - Digital
Make and Model: Micromech Instruments.
Cost: Rs.19158/-
Year of Purchase:2018

Saybolt Viscometer - Digital
Make and Model: Micromech Instruments.
Cost: Rs.24190/-
Year of Purchase: 2018



Bomb Calorimeter – Digital
Make and Model: Micromech Instruments.
Cost: Rs. 83213/-
Year of Purchase: 2018

Hydra 250-Pro Single extruder with heated bed
Make and Model: REDDX Technology.
Cost: Rs.128799/-
Year of Purchase: 2018

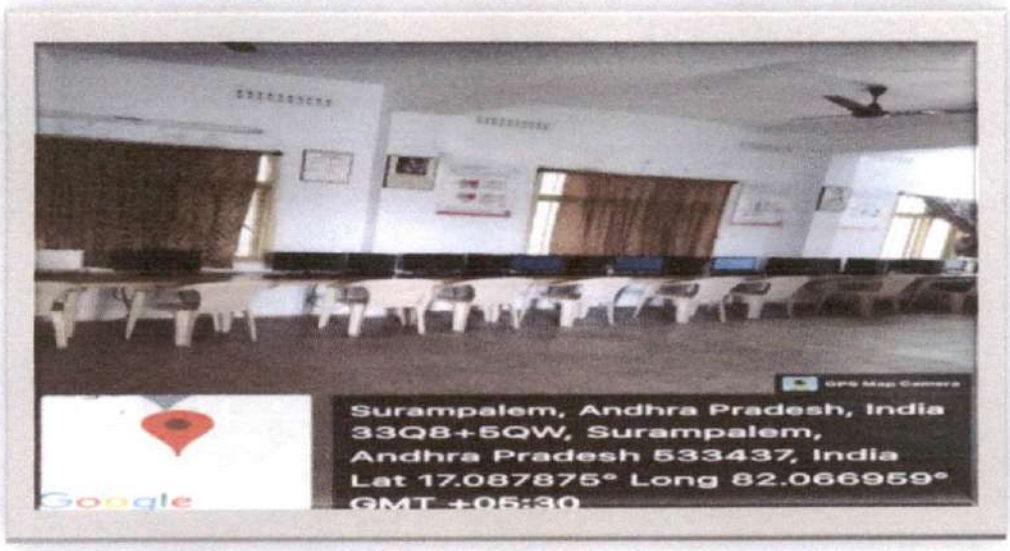
Pramaan 250-Pro Dual extruder with heated bed
Make and Model: REDDX Technology.
Cost: Rs. 142999/-
Year of Purchase: 2018

Department of Electronics and Communication Engineering

Research Facilities

S.No	Name of the Lab	Name of the Facility
1	Project Lab (Room No: CB-109)	i. Cadence Design Tool ii. Intelligent System Design iii. Mentor Graphics iv. Xilinx FPGA v. SoC boards
2	Research Lab (Room No: CB-206)	i. EM Cube Simulation suite ii. Antenna Measurement & Analysis Suite iii. RF Vector Network Analyzer iv. PC based motorized antenna trainer v. Doppler Radar Trainer vi. Satellite Trainer System
3	DSP Lab (Room No: CB-101)	i. MATLAB ii. Visual Studio iii. CC Studio iv. DSP Development Kit v. Digital Video Platform with NTSC/PAL Cam.

Geotagged photos of Research facilities



Project Lab: EDA Tools

i. Cadence Design Tool ii. Intelligent System Design
iii. Mentor Graphics iv. Xilinx FPGA
v. SoC boards

Research Lab: EDA Tools

i. EM Cube Simulation suite
ii. Antenna Measurement & Analysis Suite
iii. RF Vector Network Analyzer

PC based motorized antenna trainer

Make and Model: Akademika Lab Solutions, Pune
Cost: Rs.447279/-
Year of Purchase: 2021

Doppler Radar Trainer
Cost: Rs.116820/-
Make and Model: Akademika Lab Solutions, Pune
Year of Purchase: 2021

Satellite Trainer System
Cost: Rs. 175230/-
Make and Model: Akademika Lab Solutions, Pune
Year of Purchase: 2021

DSP Lab: EDA Tools

1. MATLAB
2. Visual Studio
3. CC Studio
4. DSP Development Kit
5. Digital Video Platform with NTSC/PAL Cam.

Department of Computer Science and Engineering

Research Facilities

S.No	Name of the Lab	Name of the Facility
1	Computer Lab (Room No: BGB-026)	i. Tableau ii. Rapid miner iii. Open software's like python, R-Studio, WEKA, Orange

Geotagged photos of Research facilities

Computer Lab : System Configuration:

Processor	:	12th Gen Intel® Core™ i3-12100 3.30Ghz
Installed RAM	:	8.00 GB
Device ID	:	BC40E0D4-FBFE-4BD4-85CA3B7C49436887
Product ID	:	00330-80000-00000-AA134
System type	:	64-bit operating System, x64-based processor

Department of Petroleum Technology

Research Facilities

S.No	Name of the Lab	Name of the Facility
1	Petroleum Reservoir Engineering Lab (Room No: KLB-308)	i. Darcy flow apparatus
2	Instrumentation Process Dynamics and Control Lab (Room No: KLB-308)	i. PC based feedback Flow, Level, Pressure, Temperature Control Trainer ii. Control Valve Characteristics

Geotagged photos of Research facilities

Darcy's Law Apparatus
Make and Model: KC Engineers Ltd., Haryana
Cost: Rs. 108300/-
Year of Purchase: 2019

PC Based Feedback Flow, Level, Pressure, Temperature, Control Trainer
Make and Model: Sap Engineering, Pune
Cost: Rs.210000/-
Year of Purchase: 2019

Control Valve Characteristics
Make and Model: Kshitij International Company
Cost: Rs.141900/-
Year of Purchase: 2013:

Convenor
(Research Advisory Committee)

Principal
PRINCIPAL
Aditya Engineering College
SURAMPALEM