3.2.1 Institution has created an ecosystem for innovations and has initiatives for creation and transfer of knowledge

CISCO - NETWORKING AND SECURITY LABORATORY

The objective of the laboratory is to provide industry based training in Networking and Security, Firewall Installation for the students.

CISCO Networking and Security

- As Technology is changing the world, the students need to acquire technical skills to succeed as a technologist, the course provides a facility - CISCO Networking Laboratory has been established in the department which provides innovative education initiative that aims to create a pool of trained computer networking specialists, and

Outcomes

- Cisco Networking laboratory provides computer networking training, education, and career opportunities. This also brings an opportunity to accelerate the students career with advanced skills and advise to take certifications.
- The majority of our students takes courses at our education institution and gets hands-on experience to gain career ready skills.

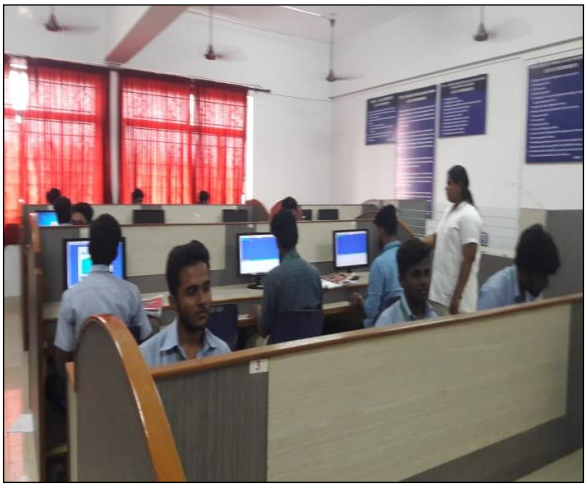
- The Interconnecting Cisco Networking Devices: Accelerated (CCNAX) v3.0 course teaches you how to install, operate, configure, and verify a basic Internet Protocol version 4 (IPv4) and Internet Protocol version 6 (IPv6) network, including configuring a LAN switch, configuring an IP router, connecting to a WAN, and identifying basic security threats.

Course Objectives

- Describe network fundamentals and build simple LANs
- Establish Internet connectivity
- Manage and secure network devices
- Operate a medium-sized LAN with multiple switches, supporting VLANs, trunking, and spanning tree
- Troubleshoot IP connectivity
- Describe how to configure and troubleshoot Enhanced Interior Gateway Routing Protocol (EIGRP) in an IPv4 environment, and configure EIGRP for IPv6
- Configure and troubleshoot Open Shortest Path First (OSPF) in an IPv4 environment and
- configure OSPF for IPv6
- Define characteristics, functions, and components of a WAN
- Describe how device management can be implemented
- Understand QoS, virtualization and cloud services, and network programmability related to WAN, access, and core segments.

Cisco Networking Laboratory

The Department of Computer Science and Engineering receives request from the students based on their knowledge and interest in a particular area for enhancing their technical knowledge by conducting the industry oriented CISCO training for the current academic year with prior permission from the department QAC.



Aero Modeling and UAV Laboratory

Aero Modeling and UAV Laboratory is well equipped with all the necessary facilities. In the Aero Modeling and UAV Laboratory, students design, fabricate and fly models. It is not only giving a primary introduction to the world of aerodynamics, designing, electronics, engine technology, wood crafting and the technology of new materials but also provides a hands-on experience necessary for developing a practical aptitude.

Students prepare various UAV's and drones and fly their prepared models practically. Students create the aircraft models with innovative ideas which will also helpful in understanding the real time application of an aircraft and increase the interest of students to study and understand the aeronautical engineering. Some of the student utilized the Aero Modeling and UAV Laboratory for projects are listed below.

Table. 1 Equipment available in the Aero Modeling and UAV Laboratory

Sl. No	Name of the Equipment
1	Thrust Measuring Stand
2	Magnetic Suspension Propeller Balancer
3	Digital Thermo-Anemometer

4	Digital Laser Photo Tachometer
5	Digital Multimeter
6	Digital Weighing Scale
7	Magnetic Stainless-Steel Bowl
8	3D Printer

V. Balaji and his team won first price and cash prize of Rs. 21,000 at National Quadcopter Championship at IIT – Bombay, conducted by ARK Techno solutions Mumbai PVT. Ltd. & ROBOKART.COM

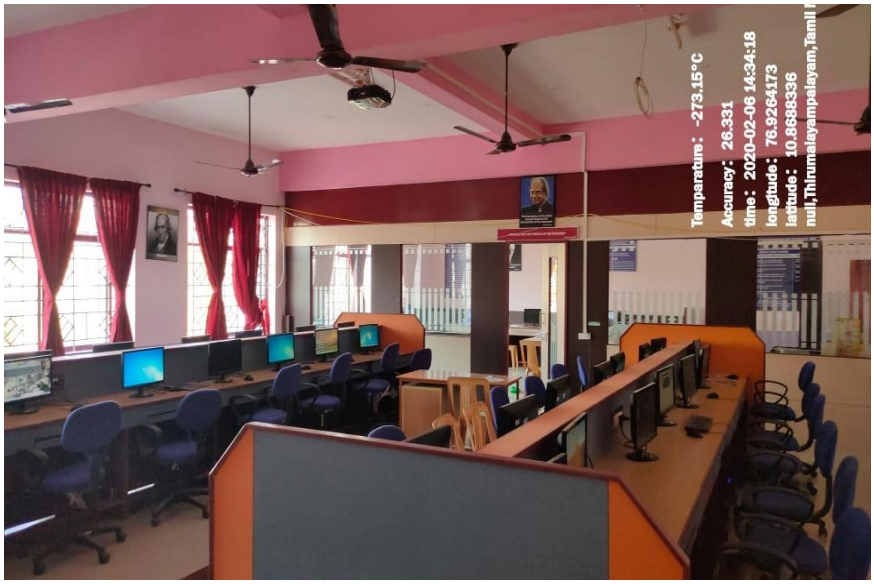
Model developed by Students

Center of Excellence (COE)

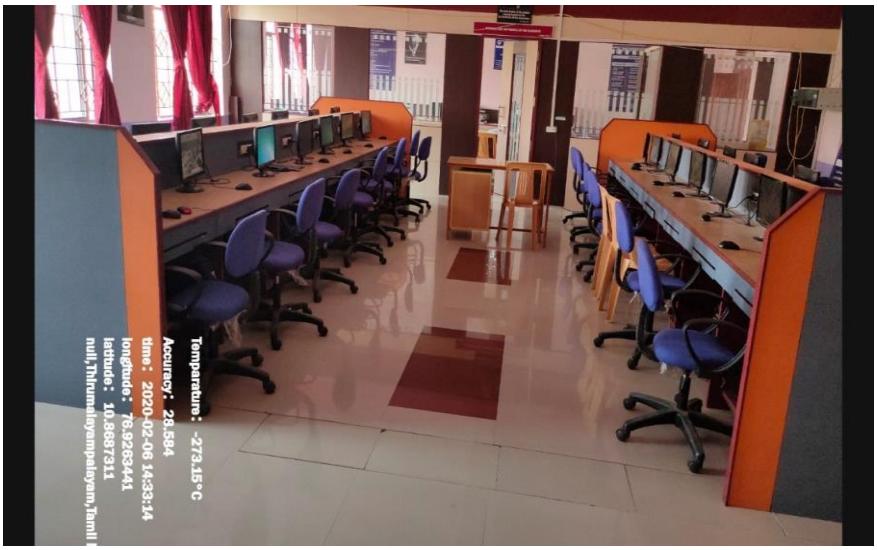
- **COE** provides collaboration, knowledge sharing, career enrichment and skills development across mechanical engineering disciplines.
- It emphasis wide-ranging technical community through quality programs in continuing education, training and professional development, research, conferences and publications and other forms of outreach.
- It helps the global engineering community to develop the solutions for real world challenges.
- To create an awareness in the recent trends in the field of design and analysis through a forum.
- To impart the basic theoretical and practical knowledge on design and analysis
- To train the students in the field of design and analysis to meet the industrial needs.

Interactive R & D Centre

- Interactive Research and development cell (IRDC) has been introduced for the benefit of students to improve their innovative and fabrication ideas.
- The research committee is leading this initiative with the primary objective of providing the knowledge on socio-economical projects with respect to the field of interest.
- This Centre has two high-end computer for searching their innovative project ideas and they can identify the materials and interact themselves for the betterment.
- IRDC is also aiming the student's project in collaboration with industrial R & D through ARK Solutions Pvt Ltd and Macbro India Pvt Ltd.
- All the activities will be planned during their Project phase as per their time table



I CUBE R & D Centre



P.K. Das energy Park :

The main objective is to increase the contribution of non- conventional energy sources in the energy balance. It strengthens community, their awareness, promotes them using energy efficiency, protecting environment and to create an awareness about the impact on renewable energy sources for the students.

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Texas Instruments Innovation Laboratory:

Nehru Institute of Engineering and Technology had signed a MoU with Texas Instruments via. STEPS Knowledge Services, Coimbatore, Authorized Training partners of TI-India to set up Texas Instruments Laboratory in Embedded Systems and Analog Electronics under TI University Program for academic and research purpose. TI University Program is a global program dedicated to supporting educators, researchers and students in facilitating the inclusion of TI analog and embedded processing in engineering classrooms, teaching and research labs, textbooks, design projects and course curriculum.

Objectives

- Students to showcase their innovations in terms of projects which can be engineered as product.
- Designing solutions to the industry problems.
- Research activities in Embedded Systems and Analog Electronics domain.
- Develop IoT applications.

Benefits:

- Extensive hands on training for Students on Labs tools.
- Certificates for Students under TI India University Program.
- Online support & mentorship on incorporated tools.
- Students can confidently participate in various contests like TI Innovation challenge etc.