Assistive Technology Lab (ATL)

The Assistive Technology Lab (ATL) in Vishnu Institute of Technology, Bhimavarm, WestGodavari district, Andhra Pradesh which is in collaboration with UMass, Lowell is a part of Sri Vishnu Educational Society and is a vision of Mr. K. V. Vishnu Raju, the Chairman of SVES, to utilize the skills of every engineering department of the college for the development of Assistive Technology.

During his visit to many universities in the United States, one thing that ignited his mind was the Assistive Technology Program at University of Massachusetts, Lowell. Assistive Technology Lab in VIT is thus a result of his progressive thinking, which paved the way for a MOU between the University of Massachusetts and VIT. He initiated the program by inviting Professor Alan Rux, founder of the Assistive Technology Program at the University of Massachusetts, Lowell, USA to VIT.

ATL works for a very unique and a noble cause of designing projects by the students of VIT to benefit the differently-unable. This is small but a definite step to mainstream people with disabilities into society. According to Prof. Alan Rux, engineering students all over the world should be encouraged to undertake various projects in the field of Assistive Technology and make its impact felt.

ATL Activities Schedule

➢ At the starting of the ATL we have taken the students based on their performance shown in the four rounds of tests conducted in the ATL.

- Round-1: Written test on core subjects
- Round-2: Circuit analysis
- Round-3: Test logical thinking ability
- Round-4: Capability solving the problems

➢ Conducting Bridge course nearly 1 month on different subjects related to ATL (EDC,MPMC, STLD,Electrical Machines, Embedded C, Testing and Development Tools, Analog Discovery kit).

➢ Client Visit and taking the inputs for their requirements

➢ Brain storming sessions to identify the solutions for the client problems

➢ Design, implementation and testing of the prototype model.

➢ Donated to the clients on Dec-3rd of every year.

➢ ATL is running from 5-00 pm to 9-00 pm. During the peak time of the projects we stay late nights also.

ATL Clients

1. Center for Visually Challenged, Bhimavaram

2. Sri Venkateswara Deaf and Dumb School, Bhimavaram

3. ArunodayaManovikasaKendram, Bhimavaram

4. Anjali School for Physically and Mentally Challenged, Palakollu

5. Andhra Blind School, Narsapuram

VISHNU INSTITUTE OF TECHNOLOGY

National Instruments Lab

The National Instruments (NI), a Centre of Excellence has been started by Department of Electronics and Communication Engineering under the aegis of Vishnu Institute of Technology, Bhimavaram in collaboration with National Instruments (NI). This centre was inaugurated on November 23rd, 2017 by our respected Chairman Shri. K. V. Vishnu Raju Garu. The NI LabVIEW (Laboratory Virtual Instrumentation Engineering Workbench) Academy was initiated to establish connections and communication between different departments to create interdisciplinary specializations. The centre aims at interdisciplinary research programs, scientific research projects, research relationships with other research centre's or distinguished researchers in collaboration with industry.

The course structure is framed such that it comprises of LabVIEW Core-1 and LabVIEW Core-2 courses. The entire course is to be conducted for the duration of 3 Years. The LabVIEW courses is planned to start when a student enters in the II Year of his/her B. Tech curriculum. The Table below provides the details of the course that would be dealt in the three years.

OUTCOME OF THE TRAINING

- Produce Certified LabVIEW Associate Developers (CLAD)
- Enhances the student skills to solve real-time problems, develop prototype models related to applications like - Automotive, Bio-medical, Engineering, Robotics, Metallurgy, Mechanical & Production Engineering, Power Systems, Process Control Design, Remote Sensing, Telecommunications, Industrial Automation, Image Processing, Aerospace and Military.

SOFTWARE

- LabVIEW Full Development system
- LabVIEW Simulation Module

HARDWARE

- NI myDAQ Integrated Electronic Circuits Education hardware

Vehicle Technology Lab

The Vehicle Technology Laboratory is a centre of excellence in the Department of Mechanical Engineering. We provide engine working models and cut models to give practical exposure about the concepts of automobile systems like transmission, suspension, power- train, steering, and chassis design etc. Students also learn the Disassembling & Assembling of different automobile engines and study each part of the engine. Through this lab students will develop a deeper understanding about the automobiles and the skills required to work in the automobile industries.

The students are also trained to design and fabricate go-kart vehicles and environmental friendly bikes to participate in various competitions. The vision of establishing this lab is to provide hands-on experience to our students.

BOT LAB

Vishnu Institute of Technology has exchanged an MOU with Automation Anywhere University and established centre for excellence (BOTLAB).

Students as well as Faculty members of Vishnu Institute of Technology can participate in the training activities in BOTLAB. All the participants will be trained to create RPA bots (software robots) using varied recorders, editors and commands. Upon successful completion of training, they are eligible for RPA Certification by AAU.

RPA can create huge job opportunities over the next three years. The knowledge of RPA tools will improve the placement opportunities of the students.

Vishnu i360 Innovation Centre and Incubation 4.0

Vishnu Institute of Technology organised Vishnu Innovation Summit 2018 to set up **Vishnu i360 Innovation Centre and Incubation 4.0** on 03rd March 2018 at campus along with the **partners INNOVATIONEXT and SAP** for developing Intrapreneurs, Innovators, Entrepreneurs and to promote start-ups.

As we set up this centre, we will connect more and more corporate for co-innovation and innovation projects at our institute.

The program will be one of the first of its kind where top business conglomerates and MNCs like Tata Motors, Aditya Vikram Birla Group, L&T, Volkswagen and many others will share their innovation-related challenges and projects with students for co-creation and other corporates to share their experiences of setting up the centres and we can connect our institute with them for new Placements/Intern /Start-ups opportunities.

TOTAL STATION

It is used to calculate the areas of site which are of different shapes and also to find the elevations of certain structures. This gives the accurate and fast result. This the modern equipment which used widely in surveying applications

Total Stations also include up-to-date image capture technology, which can record any image or screen-view from the surveying site, eliminating the need for costly revisits, and producing high-resolution images of site conditions.

And did you know that a traditional problem for surveyors is simply wet paper? A Total Station has electronic documentation and sketching functions, which reduces the need for paper field notes.

The benefits of a total station:

- much quicker to do a survey compared to manually writing down azimuth, distance, vertical angle, etc, and doing calculations later
- Can be used indoors, down mines, etc (not reliant on satellites such as GPS and GLONASS system

Every Year/Semester students undergo training in total station Workshop in our department , they will survey the total campus like building , lawns , ponds etc ., with this Total station equipment rather than normal methods of surveying like Geodetic Surveying, Cadastral Surveying, Topographical Surveying.

Solar Energy

A new Solar Power plant of 302.4 KWp was brought to commissioning by our honorable Chairman Sri.K.V.Vishnu Raju garu on 5/02/2018,in addition to 200 KWp power plant already existing.

Students participated in the commissioning of the solar PV system and contributed to the increase of efficiency of solar PV system by designing a SOLAR CLEANING SYSTEM.They participated in TIE-GRAD 2019 and WON the FIRST PRIZE.

Advanced CAD/CAM Laboratory

In this Lab, students are trained to use the licensed Mechanical Engineering softwares like EDGECAM, FLEXSIM and SOLIDWORKS etc. Apart from the modelling and simulation softwares, students are able to operate computer numerical controlled (CNC) machines which include CNC Lathe, Milling machines. Student will also get a brief idea about the Flexible Manufacturing System (FMS) which is widely used in manufacturing industries for material handling purpose, with the use of ARISTO 6 AXIS ROBOT along with Automated Guided Vehicle (AGV) system.

CAD Laboratory

In this lab students are trained to use computers for drafting, modelling and analysis of a product, these facilities are provided for making real time projects. This lab is equipped with 72 systems and operating on 11KVA UPS. This lab is a unique platform to learn modelling and simulation softwares for the students. By using this lab, students will be able to create, modify, analyze or optimization of a design and also enhance the quality of the design. During semester breake in summer students are trained on modelling softwares like AUTO CAD, CATIA, SOLID WORKS etc. and are also trained on simulation softwares like ANSYS. This lab is useful to the students to participate in various design competitions. We are conducting design workshops in association with the Ramtech Engineering Services, Andhra Pradesh State Skill Development Corporation to enhance the knowledge of students to meet the industrial requirements.

Radio Vishnu 90.4

The campus is driven by novel ideas of the Chairman. A non-profitable community radio station was set up with a vision to give voice to voiceless.Enabling interaction between community and academia, it enhances inter/intrapersonal skills of the students and instills social responsibility. Students develop most of the radio programmes on many relevant social issues keeping in mind all and sundry in the society.

Vishnu TV Academy

Sri Vishnu Educational Society is the only campus in Andhra Pradesh to have a TV Academy exclusively for students and it works with a motto; 'by the students and for the students'.

This is a sequel to the success of Radio Vishnu and adds hue to the colorful spectrum of already existing creative hub of the students.

The academy aims to encourage students to create and telecast television programmes parallel to the already thriving Radio Vishnu.

The students in Vishnu TV produce motivational documentary films on Health Care, Hygiene, Personality Development, Child Labour, Women Education and Empowerment, Environmental Issues and Social Evils.

The TV Academy also concentrates on recording Guest Faculty Lectures, Laboratory experiments of special nature, Seminars, Class room presentations, Workshops, Programmes developed by the students, Experiences of the students in the campus.

As a whole, Vishnu TV concentrates on Education, Entertainment, Events and News of the campus.

V E D I C

VEDIC was started with the vision of "Mentoring the Mentors" with training facilities of international standards. It was inaugurated by the honorable Chairman of Sri Vishnu Educational Society (SVES), Sri K V Vishnu Raju on 17th of April 2016 and started its first training programme on 28th of April, 2016. Dr. Srinivasan Sundarrajan, Retd. Director, NIT Trichy, is the Founding Director of VEDIC and the SVES group. Dr. Rajeev Sukumaran, Senior Advisor, Teaching and Learning Centre, IIT Madras played a crucial role in the ideation and creation of VEDIC. He is currently chief consultant with VEDIC.

The changing expectations of students from learning environments, globalization and rapid pace of technological change present unique challenges to higher educational institutions today. Faculty and staff need to adapt themselves to embrace the pace of these changes and prepare themselves for the future.

The training workshops and presentations are held in the creative spaces listed below. These spaces are designed to optimize interaction of participants with each other and easy access to media, books and technology as well as enabled for remote lecturing and presentations. These spaces are manage d by an Administrative Officer

I. Auditorium with Video/Audio facility with seating for 124
II. Interactive Studio with 60" wide LED TV with seating for 65
III. Discussion Room for Training with seating for 40
IV. Wi-Fi Campus with Computer Lab for online assessments and training with seating for 40
V. Video recording room for online video lectures and presentations
VI. Library stocked with latest books on Education, Leadership, Psychology and Engineering

What We DO:

➢ Workshops for faculty
➢ Workshops for Students
➢ Leadeship Workshops
➢ Research
➢ Educational technology
➢ Self development
➢ Industry readiness