VR SIDDHARTHA ENGINEERING COLLEGE

<DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING>

<TIFAC CORE IN TELEMATICS>

Dimensions of the Lab: 1162 Square Feet

Centre details: TIFAC-CORE was established on 1st February,2009 with the fund of **156 Lakhs** received from Department of Science and Technology (DST). It is a collaborative effort of Technology Information, Forecasting and Assessment Council (TIFAC) representing government of DST, VR Siddhartha Engineering College and Industries in the domain of Telematics.

Facility Details Provided to Students:

Soiftwares Available:-

- ❖ NI LabVIEW – 40 users
- ❖ RF Modulation Tool
- ❖ Signal and Image Processing Tool
- ❖ GPS Simulation Tool
- ❖ Vision Acquisition and Builder
- ❖ Embedded System software
- ❖ Multisim

Hardwares Available:-

- ❖ NI ELVIS Freescale/ARM FPGA Boards
- ❖ cRIO Workbench with Modules
- ❖ cDAQ Workbench with Modules
- ❖ PXI Work Benches
- ❖ Smart Camera WSN Nodes & Gateways

Any other related information:

Activities in TIFAC CORE

> Workshops/Training Programs:-

Workshops/ Training programes/ Seminars/ Guest Lectures and CLAD Certification programs are regularly conducted TIFAC CORE by Industry partners and expert professors from premium institutes, for enhancing the knowledge of the students and faculty in the areas of Industrial Automation, Communications, Signal Processing,Test and Measurment, Video Surveillance etc:- .

> Solutions for Societal Problems:-

Utilizing the facilities in the centre, societal problems are addressed by our students through their project works such as Automatic leakage detection in water pipes, Assessing the maximum level of sugar content in Sugarcane, Fake Note and call identification.

> Internships/Placements:-

UG and PG students take up internships and got the placement from various organizations and industries such as DLRL, RCI, Link well Telesystems Pvt Ltd, Digi Logic Pvt Ltd, UTL Technologies Hyderabad etc.,

➢ Research: -

 CORE has chosen Electronic Toll Collection (ETC) for Indian scenario as vertical area. Research is being carried out on ETC which includes Automatic Vehicle Identification (AVI), Automatic Vehicle Classification (AVC), Transaction Process, Violation Enforcement and VANETS. Research findings are published in International Journals of Springer, Elsevier, etc.

➢ Patents:-

Twopatents have filled for the work done in the centre, namely

-Development of Automatic Mecanum wheel based Robot for Industrial applications.

-Development of prototype for Intelligent Highway Traffic System and Surveillance in Indian Scenario

➢ TIFAC CORE Industry partners are :-

- Agilent Technologies India Pvt. Ltd., Bangalore,
- National Instruments Systems India Pvt. Ltd., Bangalore,
- Texas Instruments (India) Pvt. Ltd, Bangalore,
- Efftronics Systems Pvt. Ltd., Vijayawada,
- Linkwell Telesystems Pvt. Ltd., Hyderabad,
- FutureTech Instruments Pvt. Ltd, Secunderabad ,
- Opal-RT Technologies Inc, Bangalore,
- Adavnced Digital Microsystems, Mumbai,
- Optima Technologies, Hydearbad,
- Electronic Industries Association of AP,
- Vi Micro Systems Pvt., Ltd, Chennai,
- Falcon Electro Tech Pvt. Ltd, Bangalore,
- Scientech Technologies Pvt., Ltd, Indore,
- E Tech Automation Pvt. Ltd, Guntur

Lab Photographs

Hardwares:-

PXI Systems
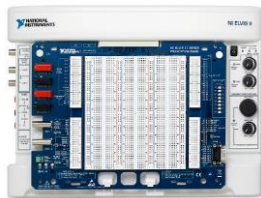
Smart Camera

Speedy-33

Real-Time Controller

Compact-DAQ

WSN Gateway

Touch Panel Computer

ELVIS Boards

Wireless Sensor Network Nodes