

**VEER SURENDRA SAI  
UNIVERSITY OF TECHNOLOGY, ODISHA,  
BURLA**  
**QIP SPONSERED SHORT TERM COURSE  
ON  
INTELLIGENT ROBOTICS, CONTROL &  
COMMUNICATION (IRCC)**

**04-04-2016 TO 09-04-2016**



**Coordinators**  
**Dr. Debasis Mishra**  
**Bikramaditya Das**



*Organized by*

**DEPARTMENT OF ELECTRONICS &  
TELECOMMUNICATION ENGINEERING**

**Venue: Golden Jubilee Seminar Hall**

### ELIGIBILITY

The course is open to all teachers of degree level technical/engineering colleges/institutions approved by AICTE. No course fee is charged for participants sponsored by AICTE approved institutions. However, a caution deposit of Rs.1000/- has to be sent by the provisionally selected participants, which will be returned when participant joins for the course. The payment is to be made by DD drawn on any Nationalized Bank and in favor of **Coordinator QIP STC on IRCC, Payable at Burla**. Registration fee for the person from industry is Rs 5000/- (non-Refundable).

### FINANCIAL ASSISTANCE

Limited number of participants from the AICTE recognized institutions will be eligible for III AC to and fro railway fare\* (via shortest route from the place of work). Only the candidates attending the full course will be eligible for TA and DA.

### BOARDING & LODGING

Boarding and lodging facilities shall be provided by the University for the candidates from AICTE approved institutions.

### IMPORTANT DATES

The last date for receipt of duly filled applications is **19<sup>th</sup> March, 2016**. Intimation of selection of candidature will be communicated through e-mail by **22<sup>th</sup> March, 2016**. Final selection notification will be given after receipt of DD and willingness to attend the course.

Interested candidates may send an advance copy of the completed application by fax/email to avoid procedural/postal delay.

### SPONSORSHIP

#### For applicants from Industry/AICTE approved Institutions

Prof./Dr./Mr./Ms. \_\_\_\_\_ is an employee of our Institute/Industry and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course **"INTELLIGENT ROBOTICS, CONTROL & COMMUNICATION (IRCC)"** at VSSUT, Burla to be held from 04-09 April, 2016, if selected.

Date: \_\_\_\_\_ Signature of sponsoring authority

Official Seal: \_\_\_\_\_ Designation

**The duly completed application should be mailed to:**  
Dr. Debasis Mishra, HOD, Dept. of ELTC Engg.  
Bikramaditya Das, Asst. Prof., Dept. of ELTC Engg.  
QIP Short Term Course "INTELLIGENT ROBOTICS,  
CONTROL & COMMUNICATION (IRCC)"  
Department of Electronics & Telecommunication Engg.  
Veer Surendra Sai University of Technology Odisha,  
Burla, Sambalpur-768018, India.  
Tel: (+91) 9438179866, 9437336969.  
Fax: -0663-2430204.  
Email: ircc.2016@gmail.com

## INTRODUCTION

In recent years Control and Communication technologies have been developing rapidly. The field of Control Theory is central to a wide range of aerospace, industrial, automotive and advanced technological systems and increasingly recognized as fundamental for emerging fields ranging from nanotechnology to cell regulation. Currently, robot applications have been fast growing in many areas such as entertainment, home task, security, medical care, mine countermeasures etc.

With an increasing robot demand, the development of highly reliable and low-cost robot control system has become a hot research field in recent years. The scope of this programme covers relevant topics in three broad areas: (a) Control Theory & Application, (b) Automation & Intelligent Robotics and (c) Communication Technology. This short term course will showcase a wide variety of applications projects, including automotive power train control, manufacturing systems, communication networks, Robotics, intelligent tracking and guidance systems, advanced human-computer interfacing, statistical signal and image processing, biomedical system identification and control, and control of Autonomous Underwater Vehicles.

## COURSE CONTENT

- Basics of Control Theory
- Control strategy in Robotics
- Underwater Robotics
- Wireless Communication
- Control/Robotics Communication
- Flexible manufacturing Systems
- Exercise in Mechatronics (mobile robots)
- Tracking and Control issues
- Hands-on-experience with simulation techniques in the field of Communication.
- Recent Communication technologies

## SPEAKERS

The course lectures shall be delivered by the faculty members of VSSUT, Burla and eminent speakers invited from NITs, IITs and other premier institutions of India.

## COURSE MATERIALS

Each registered participant will be provided with a set of comprehensive lecture notes.

## ABOUT US

Veer Surendra Sai University of Technology (VSSUT) Odisha was formed by Odisha Act 9 of 2009 by upgrading University College of Engineering (UCE), Burla to a non-affiliating Unitary State University which came into force from 1st day of July 2009. The University has eleven departments covering all the major engineering, science and humanities disciplines, offering B.Tech., B.Arch., M.Tech., M.Sc. and Ph.D. programs. VSSUT is located at the foothill of Hirakud Dam – World's longest dam. Burla is known as Intellectual capital of Odisha with VSSUT, Sambalpur University, VSS Institute of Medical Science and Research, Chipilima Agriculture College and Indian Institute of Management – all within a radius of 15 KMs. VSSUT is surrounded by metal and power industries and is referred as Odisha's "Growth Corridor". VSSUT campus is about 10 kms from Sambalpur railway station.

Department of Electronics and Telecommunication Engineering is the first department of its kind in the state of Odisha and was established in 1972 with a vision to develop new ideas in the field of communication. Since more than four decades, this department has produced high standard and self-motivated professionals to serve humanity both nationally and internationally at par excellence.

**Veer Surendra Sai University of Technology Odisha,  
Burla**

**QIP Short Term Course on**

## **INTELLIGENT ROBOTICS, CONTROL & COMMUNICATION (IRCC)**

**04<sup>th</sup> - 09<sup>th</sup> April, 2016**

### **Application Form**

1. **Name (Block letter):**
2. **Designation & Pay-scale:**
3. **Organization:**
4. **Date of Birth:**
5. **Address for communication:**

Pin Code:

Phone:

Fax:

E-mail:

6. **Academic Qualification (Please tick)** (a) B.Tech.  
(b) M.Tech. (c) Ph.D.
7. **Specialization:**
8. **Experience (in years)**  
(a) Teaching (b) Industrial (c) Research
9. **Amount of TA requirement as per entitlement mentioned in the brochure (only for AICTE approved colleges)**

**Rs.:**

Please register me for the course entitled "INTELLIGENT ROBOTICS, CONTROL & COMMUNICATION (IRCC)" to be held at VSSUT, Burla during 02 -08<sup>th</sup> May, 2016.

Place:

Date:

Signature of the applicant