

A Five Day  
National Workshop on  
**Basics in Robotics  
and Applications**  
(NWBRA-2K18)

17<sup>th</sup> - 21<sup>st</sup> December, 2018

Organized by  
**Department of Mechanical Engineering**

**Registration Form**

Name of the participant : .....

Gender : .....

Age : .....

Qualification : .....

Address : .....

Mobile number : .....

Email : .....

Registration fee paid : **Yes / No**

Chalan Number : .....

Write up on 'Interest of participation : **Enclosed / Not**

Holding Laptop : **Yes / No**

Signature of participant : .....

Endorsed by Guide / Counsellor / HoD / Principal : .....



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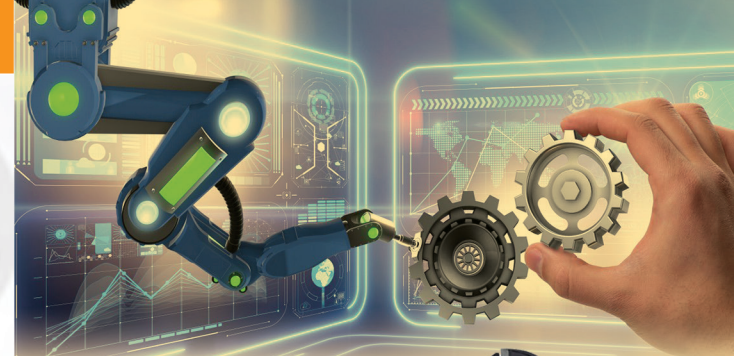
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Convenor : Dr. L. Suvarna Raju, Professor & Head

Coordinator : Mr. Ravi Kumar Mandava, Asst. Professor

Co-Coordinator : Mr. N. Narayan Rao, Asst. Professor

Organized by Dept. of **Mechanical Engg.**



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## VFSTR (DEEMED TO BE UNIVERSITY)

VFSTR, the flagship institution of Vignan Group of Educational Institutions, is a NAAC 'A' accredited institution, ranked 88 (2016 & 2017) by National Institutional Ranking Framework of MHRD, Government of India. Located in serene environs of Vadlamudi on the Guntur-Tenali highway, the university with its sprawling play grounds, campus greenery and imposing academic blocks, is a virtual haven of rural quiet and idyllic beauty. Since its inception in 1997, the institution has been striving to promote high standards in technical education. Through diverse programs and updated curriculum and by imparting industry exposure and hands-on skills, the university trains its students into competitive and global professionals, imbued with ethical consciousness and social awareness.

## DEPARTMENT OF MECHANICAL ENGINEERING

VFSTR offers various programs in Mechanical Engineering at bachelor, master and Ph.D level. Our strong and interactive curriculum incorporates learning with hands-on practice that makes the students capable of taking their career to the next level, be it in the professional engineering practice or in further studies. Right from its inception in 1997, the Department has been focusing on quality teaching with integrated laboratory practice. The Department has 14 laboratories, 3 research centers and a Center of Excellence in Composite Materials that are designed to cater to the needs of academic, industrial and research activities.

## INTRODUCTION

The field of Robotics has now gained immense popularity in respect of dealing with problems in different disciplines all over the world. This workshop is designed to provide knowledge on the recent developments in Robotics, applications and the allied research field. This program is also aimed to provide hands-on experience on development and testing of mobile robots in real time environment for various applications.

The workshop offers a unique multi-disciplinary platform to the participants to undergo training and improve research activity. This course is beneficial for the students, scholars, practicing engineers and academicians from various disciplines.

## OBJECTIVES

- To provide knowledge on basics, kinematics and dynamics of robotics
- To provide in-depth knowledge on the forward and inverse kinematic models of usual serial and parallel manipulators
- To create an understanding on the concepts of various bio-inspired robots
- To impart knowledge on concepts of static and dynamic walking of humanoid robots
- To discuss development of various path/motion planning algorithms using soft computing techniques

## COURSE CONTENT :

- Introduction to Robotics
- Forward and Inverse Kinematics of the Planar Serial and Planar Parallel Manipulators.
- Static Walking and Dynamic Walking of the Biped Robot.
- Biologically Inspired Robots and its applications.
- Design of controllers and its working in various robots.
- Path/Motion planning algorithms and their applications.
- Soft computing based algorithms using in path planning algorithms.
- Various robots are using in space applications.
- Hands on experience on developing various mobile robots with their applications.

## REGISTRATION FEE :

Faculty Member	Rs. 2,000/-
Research Scholar	Rs. 1,500/-
Students	Rs. 1,000/-
Registration fee includes course material, lunch, Refreshments.	
Accommodation will be provided on payment basis.	

## KEYNOTE SPEAKERS :

**Dr. C.D. Sridhara**

Former Deputy Director for ISRO Satellite Center (Retd)

**Dr. V. PanduRanga**, IIT Bhubaneswar.

**Dr. Santhakumar Mohan**, IIT Indore

**Dr. Vivek Sangwan**, IIT Bombay

**Dr. Nirmal Baran Hui**, NIT Durgapur.

**Dr. Rahul Kala**, IIIT Allahabad.

**Dr. N. Siva Prasad**, TATA Elxsi, Bangalore.

**Dr. K.Venkata Rao**, VFSTR, Guntur

**Mr. Ravi Kumar Mandava**, VFSTR, Guntur

## How to Apply

The duly filled Registration form along with the Registration fees should be sent to the coordinator through E-mail on or before 10th December 2018. Fee can be deposited by electronic transfer through NEFT to the bank account "VFSTR MISCELLANEOUS", A/C-21890210000151, IFSC-UCBA0002189, payable at Guntur, Andhra Pradesh, India

