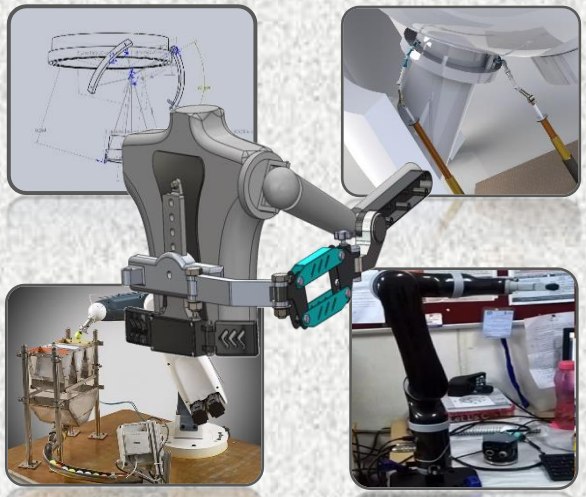
PunjRobotics

***IIT Ropar** and **TRS** presents*
AICTE sponsored
Faculty Development Program
on

Robotics System Design: Fundamentals, Challenges and Applications

Nov 2-6, 2020



Hosted by:

Mechanical Engineering Department
Indian Institute of Technology Ropar
Main Campus, Roopnagar
Punjab- 140001, India.
www.iitrpr.ac.in

About IIT Ropar

IIT Ropar is one of the second generation IITs set up by Ministry of Education, Government of India. The institute is committed to provide state-of-the-art technical education in a variety of fields and for facilitating transmission of knowledge in keeping with latest developments in pedagogy. These two areas of focus will enable students to gain exposure to recent trends in their chosen domains of study and gain practical experience through a wide variety of activities the institute facilitates in its own campus and arranges industry and other institutes. With 389 PhD scholars in the Institute, 74 scholars have successfully defended their thesis and 142 scholars have joined the PhD program during the last one year. The atmosphere of vibrancy in the campus is delivering fantastic results in the span of a decade, the Times Higher Education World University Ranking 2020 is an example. ***PUNJRobotics*** is set up to formulate a common platform at IIT Ropar to uplift the interdisciplinary field of Robotics – within the institute and around for Robotics

The Robotics Society - TRS

The Robotics Society (TRS) is a registered Society with members from various academic and research institutes or organizations from India and overseas, and corporate members, all working in the fields of robotics. TRS was formed to have regular meetings and events to bring together the robotics community in India at large. It has successfully organized four international conferences in the form of Advances in Robotics (AIRs) every two years, starting in 2013. It has also organized many more Workshops on Robotics over the years, which have proved to be a good platform for sharing knowledge and networking amongst young researchers, faculty experts and roboticists from research organizations and industry. More details about TRS can be found at **http://www.rs-india.org**.

FDP and TRS workshop objective

TRS organizes a national workshop biennially at different locations towards the aim of creating critical masses in the advanced fields of Robotics. TRS workshop 2020 had been planned to be hosted at IIT Ropar campus, but due to Covid-19 situation the workshop is being scheduled for ONLINE mode. The one-week program aims to gather researchers from diverse fields related to Robotic Design and focus at the fundamental requirements, the normally faced challenges and case-studies on robotic systems designs by renowned researchers. The workshop will work as a catalyst in addressing the upcoming enthusiasm, research and interests in Robotics design field.

Program Contents

- Kinematics Modelling and Analysis of Manipulators and Mobile robots
- Kinematic Performance Analysis
- Mechanism Design
- System Dynamics and Control
- Robot Design Strategies
- Artificial Intelligence
- Robotics Operating System (ROS)
- Modular Robotics Design
- Reconfigurable Robotics
- Design Challenges in Agriculture, Medical and Defense Applications
- Online Demonstration of Robotic Manipulators, Mobile Robots, Humanoid Robots and Cobots.

Program Speakers

- Prof Ahmed Chemori, CNRS, France
- Prof Giuseppe Carbone, Uni. Of Casino, Italy
- Prof Asokan T., IIT Madras
- Prof Subir K. Saha, IIT Delhi
- Prof Ashish Dutta, IIT Kanpur
- Prof Pushparaj M Pathak, IIT Roorkee
- Mr Alok Mukherjee, R & DE Engg, DRDO Pune
- Prof S. Bandyopadhyay, IIT Madras
- Prof Ashish Singla, TIET, Patiala
- Prof Ekta Singla, IIT Ropar
- Prof Srikant S. Padhee, IIT Ropar

Program Registration

Fees:
There is NO registration fees to attend the course. Limited seats 200.

How to Apply:
Online registration through AICTE portal.
Link is given below.
http://www.aicte-india.org/atal
http://atalacademy.aicte-india.org/login

Registration Last Date:
October 15, 2020

Online mode details will be shared with shortlisted participants

Certification:
Program participation E-certification shall be awarded to the participants with 80% attendance and with a score of minimum 60% marks in a test being conducted on the last day of the program, and on submission of online feedback.

For any queries contact:

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...a co-organization by THE ROBOTICS SOCIETY