SHORT TERM COURSE
on
Application of Robotics and Mechatronics
(STCARM-2016)
18th November – 20th November, 2016

ORGANISED BY
DEPARTMENT
OF
MECHANICAL ENGINEERING
NATIONAL INSTITUTE
OF
TECHNOLOGY
ROURKELA - 769008, INDIA

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Rourkela" payable at SBI, NIT Campus
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**INTRODUCTION**

Recent developments in robotics, mechatronics and nanotechnology expand their application fields. The evolution of mechatronics and robotic systems require superior functions with advanced control. Recently, their structures and mechanism become more complex. As each element constructing the complex mechanical system becomes miniaturized, it requires much more advanced functions and higher reliability, especially in organic combination of multiple miniaturized actuators and sensors to perform complex motions. Micro/Nano technologies are becoming key and crucial to improve system performance. It is important to promote the research works on theory and applications based on analysis and synthesis from the micro level to the Nano level engineering problems. Micro/Nano robotics is an important research field for future Robotics and automation. Micro/Nano technologies are expected to be applied in a number of fields, such as industrial, medical, bio-engineering, and service fields. The scope of the technical interests of this conference is basic technologies and key issues in robotics and mechatronics.

**THEMES**

The seminar STCARM-2016 will focus on current research trends in Robotics and Mechatronics with innovations in design and its applications in institutes and manufacturing industries including the following themes with 30 hours of lectures and class assignments.

- Robotics
- Humanoid Robots
- Image Processing
- Actuators
- PC 104 Industrial Board
- Soft computing
- Mechatronics
- Pneumatics and Electro Pneumatics Systems
- Mobile Robotics
- Micro Robotics
- MEMS
- Micro controllers
- Sensors
- Expert Systems
- Hydraulic and Electro Hydraulic System

**VENUE**

Rourkela is a major hub of industrial activities in Eastern India, with cluster of Steel Industries. The city also hosts the Software Technology Park of India (STPI). Rourkela en routes Calcutta (Howrah) - Mumbai main line of South Eastern railway. The Rourkela railway station and intrastate bus stop are 6 kms and 2 kms from NIT Rourkela respectively. The climate at Rourkela during November will be pleasant with temperature ranging from 22°C to 35°C.

**ACCOMMODATION**

A limited number of rooms with shared accommodations are available in Halls, North and South Guest House of the institute. The confirmed accommodation for the delegates can be arranged by the organizing committee members either in the institute guest house and / or in halls on request accompanied with advance charge in the form of D.D as per the GH Charge.

**REGISTRATION FEE STRUCTURE**

- Industry delegates Rs.1000/- (without accommodation and food)
- Delegates from R&D and Academic Institutions Rs. 800/- (without accommodation and food)
- Bona fide Student/Research Scholar delegates Rs.500/- (without accommodation and food) and Rs. 300/- for NIT Rourkela Students
- Delegates from outside India €200 or US $ 300
- Last date of Registration 16th November 2016.

**REGISTRATION FORM FOR DELEGATES**

Name: __________________________
Address: ________________________
Mobile/Phone: ____________________
E-mail: __________________________
Gender: _________________________
Accommodation Required: Yes ☐ No ☐ (If yes, Institute Guest House ☐ or Hotel ☐): Details of total amount of registration fee. (Accommodation charges and food to be borne by rest participate)
D.D. No: _________________________
Amount __________________________ Date ___________________
Date: __________________ Signature
PROFORMA
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Date: __________________ Signature