

**1st International and 16th National
Conference on
Machines and Mechanisms
(iNaCoMM 2013)**

December 18-20, 2013

organised by

**Department of Mechanical and Industrial
Engineering, IIT Roorkee**



Under the aegis of

**Association for Machines and Mechanisms &
International Federation for the Promotion of
Mechanism and Machine Science**



Introduction

Department of Mechanical & Industrial Engineering, IIT Roorkee, under the aegis of Association for Machines and Mechanisms (AMM), and International Federation for the Promotion of Mechanism and Machine Science (IFToMM) is organising 1st International and 16th National Conference on Machines and Mechanisms (iNaCoMM 2013) at IIT Roorkee.

About the Conference

iNaCoMM 2013 is the 16th in the series of biennial conferences organised under the aegis of AMM with international status being given from 2013. The conference aims at bringing together researchers, industry experts and students working in various aspects of design and analysis of machines and mechanisms. This year the conference starts with a one-day workshop on (i) Multi body dynamics by Prof. Javier Cuadrado from Universidad de La Coruña, Spain (ii) Workshop on Compliant Mechanism by Prof. G. K. Anathasuresh from IISc Bangalore, (iii) Workshop on bond graph modelling by Prof. Belkacem Ould Bouamama, from Ecole Polytechnique de Lille and Head of the research group "Bond Graphs", LAGIS UMR CNRS8219 Laboratory, France. The deliberations in conference will be in terms of oral as well as poster presentations. Besides this there will be keynote lectures by the leading experts in the field. Few of the keynote lecture speakers are: (i) Prof. Y. Nakamura from University of Tokyo and President, IFToMM (ii) Prof. Amalendu Mukherjee from IIT Kharagpur (iii) Prof. Ranjan Mukherjee from Michigan State University, USA Selected papers from the iNaCoMM2013 will be recommended for publication in (i) Mechanism and Machine Theory, affiliated as an official IFToMM research journal, published by Elsevier, (ii) Robotica, an official journal of the International Federation of Robotics, published by Cambridge University Press, (iii) Industrial Robot: An International

Journal, published by Emerald. Further it is planned to hold Students' Mechanism. Design contest, an event that became part of NaCoMM in 2009.

About Roorkee

Roorkee is in the State of Uttarakhand and is located at the foothills of Himalayas. It is blessed with the holy Ganges Canal flowing through the centre of the city. The nearest airports to Roorkee are Dehradun & Delhi. Roorkee Railway Station is on the main line of Northern Railways having direct links to Delhi, Mumbai, Kolkata, Amritsar, Jodhpur and Ganganagar. The place is also within easy reach from Delhi, by road (180 km) and is located on Delhi - Haridwar and Delhi - Dehradun bus routes. Roorkee is ideally located near several tourist places like Dehradun (70 km), Mussoorie (100 km), Haridwar (32 km) and Rishikesh (52 km). The month of December falls in winter season with temperature ranging between 10-20 degree C.

About IIT Roorkee

The Indian Institute of Technology (IIT) Roorkee is the successor of the University of the Roorkee and is the oldest technical institution of the Indian sub-continent. It was established as the Roorkee College in 1847 and rechristened as the Thomason College of Civil Engineering in 1854. Recognizing its yeoman contribution for the development of the country for over 100 years, this temple of learning was elevated to the status of a University, the first technical university in India in 1949. The University of Roorkee was converted to IIT Roorkee as the nation's seventh Indian Institute of Technology by an act of Parliament by Government of India on September 21, 2001, thereby further elevating it to an institute of national importance. Over the years, it has built up and maintained an excellent academic reputation. The outstanding achievements of its alumni especially in the field of water related subjects are a testimony to this.

Scope of the Conference

The conference will cover following broad areas, but not limited to

- Analysis and Synthesis of Mechanisms
- Compliant Mechanisms
- Design and Analysis of Biomedical Devices
- Dynamics and Control of Multi-body Systems
- Dynamics and Vibration Analysis in Machines
- Fault Diagnosis and Health Monitoring
- History of Machines and Mechanisms
- Mechanisms and Machines for Rural, Agricultural and Industrial Applications
- Vehicle Dynamics
- Mechatronic Systems
- Micro-, Nano-Machines and Mechanisms
- Tribology
- Theoretical and Computational Kinematics
- Robotics
- Modelling and Simulation

Following special sessions have also been planned

- **Multibody Dynamics:** Organised by Prof. S. K. Saha, IIT Delhi and Prof. Javier Cuadrado, Spain (Chair of IFToMM TC for Multibody Dynamics)
- **Bond Graph Modelling of Mechanical and Mechatronic Systems:** Organised by Dr. A. K. Samantaray, IIT Kharagpur and Prof. Rochdi Merzouki, Ecole Universitaire Polytechnique de Lille, France

Call for Papers

Prospective authors are invited to submit a two-page extended abstract at the conference website (www.nacomm2013.org) by March 31, 2013. The official language of the workshop is English. Acceptance of the abstract will be communicated to the authors and they will be invited to submit the full paper in the conference template.

Advisory Committee

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Joseph Anand Vaz	NIT Jalandhar
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Important Dates

Submission of Abstract	April 20, 2013
Acceptance of Abstract	April 30, 2013
Submission of Full Paper	May 31, 2013
Notification of Provisional Decision	July 31, 2013
Submission of Revised Papers	August 31, 2013
Notification of Final Decision	September 30, 2013
Submission of Camera-Ready Paper	October 15, 2013
Registration	October 20, 2013

Registration Fees

Delegates	India (INR)	Others (USD)
Full time research scholar	2000	200
Research Organizations	5000	300
Others	7000	450
Concession (IFTToMM Members)	500	50

Accommodation

Both economy/luxury class hotels are located within 5km from the conference venue. Limited accommodation is available on payment basis at IIT Roorkee guest house/student hostel on first cum first basis.

Organizing Committee

Patron: Prof. Pradipta Banerji, Director, IIT Roorkee

Chairman: Prof. P.K. Jain, Head of Department

Convener: Prof. Satish C. Sharma

Organizing Secretary: Dr. Pushparaj Mani Pathak

Joint Organizing Secretary: Dr. Indra Vir Singh,
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Treasurer: Dr. Manish Mishra

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For update visit www.nacomm2013.org