

Association for Machines and Mechanisms News Bulletin

Volume 7, No. 3

July 2015



Objectives and Activities

The main objective of AMM is to contribute to mechanical design at all levels starting from academic research to industrial initiatives, thereby enhancing the quality and reliability of indigenous machines. With this in view, AMM organises the International & National Conference on Machines and Mechanisms, iNaCoMM, and the workshops on Industrial Problems on Machines and Mechanisms, IPRoMM regularly.

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Message from the Editor-in-Chief

After some delay, amidst rainy atmosphere, Volume 7, No. 3, July 2015 issue of the Bulletin of the Association of Machines and Mechanisms (AMM) has become ready for publishing at this late August.

Dr. Ranjit Kumar Barai, the Zonal Vice President (East), who was given main responsibility to bring out this issue of the Bulletin, was in abroad these days. He tried a lot whatever he could do from abroad. However, no contributed article was received initially for this issue. Finally Prof. Subir K. Saha came out with a technical write up along with his students. This article is on "Mechanism Analysis Using MechAnalyzer Software" in which a brief about using a software developed by the group is included. Concerned interested persons may be benefitted from this article.

The iNaCoMM-2015 and some other events associated with the Association are being organised in the coming months within India and abroad. Interested persons may find the Information Brochure of the upcoming events in this issue of the Bulletin as usual. They may send articles and/or participate in the conference.

"Student Mechanism Design Contest" that would be held during iNaCoMM-2015 at IIT, Kanpur is also outlined in this bulletin. Interested students may participate in these events with their inquisitive ideas.

Dr. G. Sarvanakumar, the Secretary of the AMM, and other office bearers of AMM have taken the initiative to bring out this issue as usual. The Editor-in-Chief gratefully acknowledges the support extended by the office bearers and Editorial Board members.

For bringing out October 2015 issue, AMM members are requested to contribute articles, technical briefs, etc. and send same to the editorial team. Constructive suggestions, comments towards improvement of the Bulletin of the AMM are most welcome. I feel members should think whether an International Journal of the AMM can be thought of in near future to promote the Mechanisms community further.

Prof. Santanu Das
Editor-in-Chief

About the Association of Machines and Mechanisms (AMM)

The AMM headquarter is currently located at the Department of Engineering Design, IIT Madras. A new set of office bearers have taken charge of the affairs of AMM. AMM invites both individual and corporate membership from Indian academia, research organizations and industry. Membership benefits and other information about AMM are available at www.ammindia.org. The body of Zonal Vice Presidents (ZVPs) is active over the past several years with representations from the four corners of the country. They are playing the role of nodal agencies so as to decentralise the AMM official activities and to organise workshops under the aegis of AMM to popularise the mechanism science in their respective regions. They also form the editorial team of this news bulletin. AMM invites contributory articles from its members and others working in the various fields of mechanisms science for this quarterly news bulletin. Interested people can contact the editorial team.

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**Opportunity, sooner or later comes to
all who work and wish.**

--- Lord Stanley

About the International Federation for the Promotion of Mechanism and Machine Science (IFToMM)

How IFToMM can be reached

- Through your local Member Organization, to become active in IFToMM
- Through an IFToMM Technical Committee Chairperson, to participate in a specific activity
- Through the IFToMM Executive Council
- Through the IFToMM Secretary General:

Prof. Teresa Zielinska, Warsaw University of Technology, MEiL, ul. Nowowiejska 24, 00-665 Warsaw, Poland



IFToMM Presidents

From left to right: Giovanni Bianchi (1984-1987 and 1988-1991), Arcady Bessonov representing Ivan I. Artobolevsky (1969- 1971 and 1972-1975), Bernard Roth (1980-1983), Jorge Angeles (1996-1999), Kenneth J. Waldron (2000-2003 and 2004-2007), Leonard Maunder (1976-1979), Adam Morecki (1992-1995), Marco Ceccarelli (IFToMM Secretary General 2004-2007, President 2008-2011). Yoshiko Nakamura – current President

Main activities of IFToMM

- meetings, conferences, publications, direct collaboration
- 47 IFToMM Members of territory and national Organizations

- 13 Technical Committees:
 - Biomechanical Engineering
 - Computational Kinematics
 - Gearing and Transmissions
 - Linkages and Mechanical Controls
 - Micromachines
 - Multibody Dynamics
 - Reliability
 - Robotics and Mechatronics
 - Rotordynamics
 - Sustainable Energy Systems
 - Transportation Machinery
 - Tribology
 - Vibrations
- 4 Permanent Commissions:
 - Communications, Publications and Archiving
 - Education
 - History of MMS
 - Standardization of Terminology

- 6 affiliated Journals and 2 book series:
 - Mechanism and Machine Theory <http://www.journals.elsevier.com/mechanism-and-machine-theory/>
 - Problems of Mechanics <http://pam.edu.ge>
 - Open-access Mechanical Sciences <http://www.mech-sci.net>
 - Chinese Journal of Mechanical Engineering <http://www.cjmenet.com>
 - Journal of Vibration Engineering & Technologies <http://www.tvi-in.com/>
 - Mechanics Based Design of Structures and Machines <http://www.tandf.co.uk/journals/title/15397734.asp>
 - Book series on MMS <http://www.springer.com/series/8779>
 - Book series on History of MMS <http://www.springer.com/series/7481>
- A World Congress every 4 years



International Federation for the
Promotion of
Mechanism and Machine Science

Mission

To promote research and development in the field of Machines and Mechanisms by theoretical and experimental methods, along with their practical application

Vision

To provide leadership for cooperation and development of modern results in the Mechanism and Machine Sciences by assisting and enhancing international collaboration

IFToMM webpage:

<http://www.iftomm.org>

IFToMM, April 2014

Bodies of IFToMM

General Assembly

The General Assembly is the supreme body of the Federation and determines its policy. It is composed of the Chief Delegates of IFToMM Members and members of the Executive Council.

Executive Council

The Executive Council manages the affairs of the Federation between the sessions of the General Assembly. It is elected every four years, meets annually, and is composed of the President, Vice- President, Secretary-General, Treasurer, and six ordinary members.

Commissions and Committees

Each Permanent Commission and Technical Committee is composed of a Chairperson, appointed by the Executive Council, a Secretary and members, nominated by the Chairperson and appointed by the Executive Council. A Chairperson shall not serve for more than two terms consecutively. The general goals for the work of the Commissions and Committees are aimed at promoting their fields of interest by attracting researchers and practitioners, including young individuals, in order to:

- define new directions in research and development within their technical areas;
- establish contacts between researchers and engineers;
- initiate and develop bases and procedures for modern problems;
- promote the exchange of information;
- organize national and international symposia,

conferences, summer schools, and meetings.

Member Organizations

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BULGARIA CANADA
CHINA-BEIJING
CHINA-TAIPEI
CROATIA CZECH
REPUBLIC
DENMARK EGYPT
FINLAND FRANCE
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RUSSIA SERBIA
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TURKEY UKRAINE
UNITED KINGDOM USA
VIETNAM

*Welcome to Taipei,
China-Taipei, venue of
the 14th IFToMM World
Congress, 25-30 October,
2015,*

www.iftomm2015.tw

IFToMM supported Conferences (selection)

Int. Symposium on
History of Machines and
Mechanisms (HMM)
Workshop on
Computational
Kinematics (CK)
Rotordynamics
Conference
CISM-IFToMM
Symposium on Robot

Design, Dynamics, and
Control (ROMANSY)
Mechanical Transmission
Applications (MeTrApp)
Symposium on Robotics
& Mechatronics (ISRM)
European Conf on
Mechanism Science
(EUCOMES)
Asian Conference on
MMS (ASIAN MMS)
Summer Schools

Conferences under IFToMM patronage (selection)

Local conferences of the
IFToMM Members
Symposium on Theory
and Practice of Robot and
Manipulators (SYROM)
IFToMM-FeIbIM Int.
Symposium on Multibody
Systems and
Mechatronics (MUSME)

Joining IFToMM Member Organizations gives the following benefits:

international contacts for
potential developments of
joint projects;
reduced registration fees
for IFToMM
supported conferences;
participation and
contribution in IFToMM
activities and
publications;
flow of information on
IFToMM activities.

**You are kindly invited
to join IFToMM and its
activities.**

Mechanism Analysis Using MechAnalyzer Software

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1. Introduction

MechAnalyzer is a 3-D model based software for effective teaching and learning of mechanisms related courses at an undergraduate level. It is an evolving product under development in the Department of Mechanical Engineering at IIT Delhi under the guidance of Prof. Subir Kumar Saha.

2. About MechAnalyzer and Few Case Studies- An Outline

The software consists of common planar mechanisms, which are already preloaded in it. Some of them are four bar, slider crank, double slider, quick return mechanisms, etc. can be visualized in 3-D along with animation that adds to the fun part in learning. The mechanisms are analyzed using analytical and graphical approach for forward kinematics. The analytical approach uses vector closed loop equations, for example, in a four bar linkage, vector closed loop equations are written for analyzing position, velocity and acceleration of the links while considering all link angles with respect to the ground. A screenshot of the mechanism is shown in Figure 1.

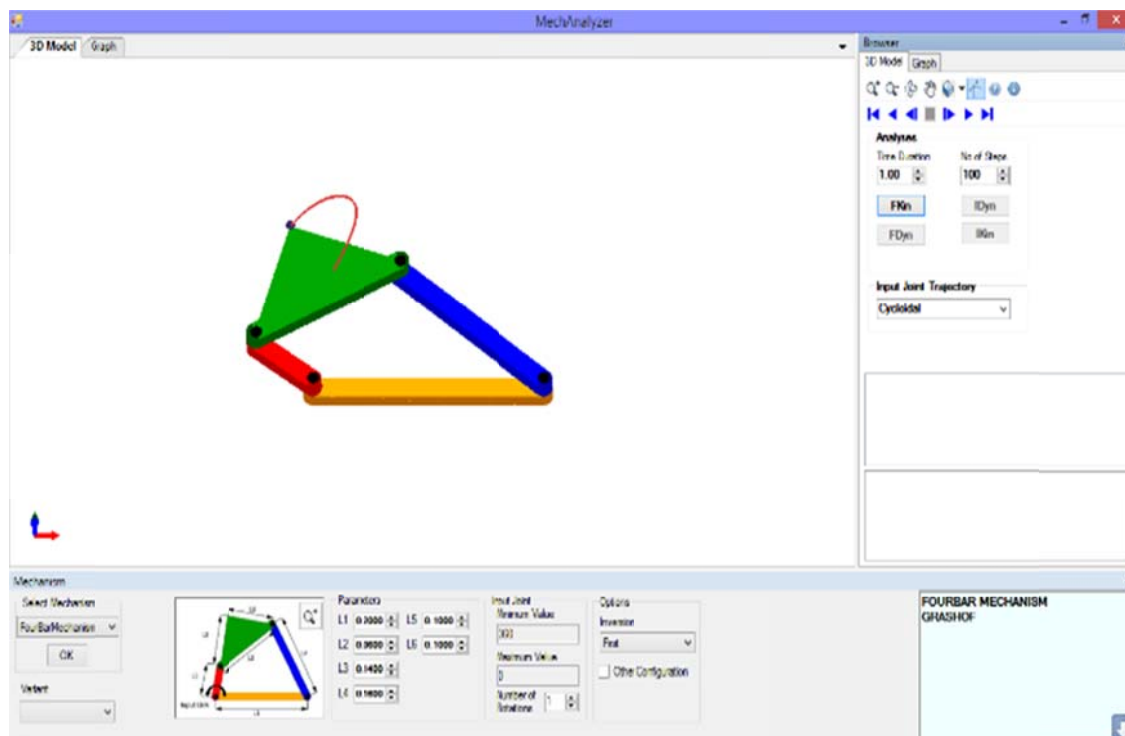


Figure 1: Four bar mechanism in MechAnalyzer

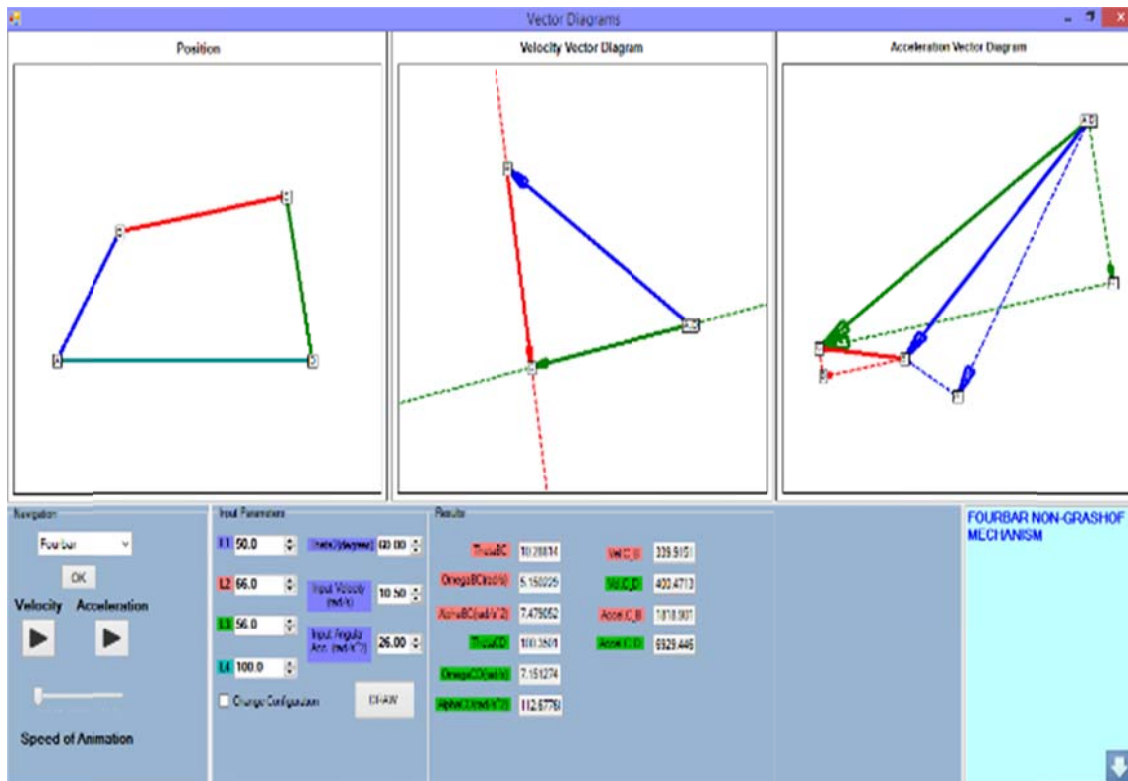


Figure 2: Vector diagrams for four bar mechanism in MechAnalyzer

Apart from this, mechanisms can also be analyzed using graphical approach which is generally easy for students to understand, and teachers find it easy to teach as well. Here vector diagrams for velocity and acceleration are drawn for each mechanism. For drawing a vector diagram, known parameters are drawn in the scaled form that results a polygon of vectors. The animation shows stepwise formation of vector diagrams imparting a good understanding of mechanisms. A screenshot of vector diagrams for four bar mechanism is shown in Figure 2.

3. Concluding Remarks

Thus, MechAnalyzer software provides a better understanding of basic concepts related to kinematic analysis of mechanisms. It is freely available on www.roboanalyzer.com/mechanalyzer.html. For any queries, suggestions or feedback, write to the authors on the contacts given above.



IFTOMM 2015 World Congress Oct. 25-30, 2015, Taipei, Taiwan <http://www.iftomm2015.tw>

Call for Paper

The 14th IFTOMM World Congress will be held in Taipei, Taiwan, on Oct. 25-30, 2015. IFTOMM World Congress is held every 4 years and is the largest congress on mechanism and machine science. It will provide opportunity for researchers, scholars and students with interests in the theory and practice of mechanisms and machines for new ideas, sharing experiences, and discussing future developments.

TOPICS OF THE CONGRESS

Papers are welcome on the general areas of the theory and practice of machines and mechanisms, but not limited, to the topics of the IFTOMM Technical Committees and Permanent Commissions, namely:

- Biomechanical engineering
- Computational kinematics
- Design methodology
- Dynamics of machinery
- Education
- Gearing and transmissions
- History of MMS
- Linkage and mechanical controls
- Mechatronics
- Micromechanisms
- Multibody dynamics
- Reliability of machines and mechanisms
- Robotics
- Rotor dynamics
- Standardization of terminology
- Sustainable energy systems
- Transportation machinery
- Tribology
- Vibration

ORGANIZING COMMITTEE

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(National Cheng Kung University)
Secretary General: Tyng Liu
(National Taiwan University)

PRESENTATION AND PROCEEDINGS

The official language is English. Registered participants will receive one Digital Proceedings which will be Engineering Index (EI), DOI and ISBN numbered.

PAPER SUBMISSION

All papers must be submitted electronically and they will be reviewed. Authors are requested to submit a full length paper, 4 pages (minimum) to 10 pages (maximum). The abstracts are NOT acceptable. The format will follow the IFTOMM template that is available in the congress webpage. Best Paper awards will be given.

IMPORTANT DATES

Full version of the paper should be submitted through the Conference Web site.
On-line Submission System Open: 01 Sep. 2014
Full Paper submission: 15 Jan. 2015
Provisional decision: 15 Apr. 2015
Final version submission: 31 May 2015
Final decision: 15 Jul. 2015

REGISTRATION FEES

Early registration will be before 25 August 2015.

	Early Reg.	Regular Reg.
Delegate from IFTOMM MO:	US\$500	US\$600
Delegate from non-IFTOMM MO:	US\$550	US\$650
Student:	US\$150	US\$200
Accompanying Person:	US\$150	US\$200

IFTOMM Young Delegate Program will provide support to young researchers as ruled in IFTOMM webpage.

CONGRESS LOCATION

The island of Taiwan lies about 180 Km off the southeastern China. Taipei City, the capital of Taiwan is a city of fascinating contrasts – a mix of modern and traditional with a generous dash of energy and friendly smile. It will be held in Taipei International Convention Center which situated in central Taipei, Xinyi District, near Taipei 101, with convenient transportation. For more information, please visit the Tourism Bureau site at: <http://www.taipeitravel.net/en/scene/>

ACCOMMODATION

A variety of hotels with special rate in different standards with the room rate ranging from US\$133 to US\$387 will be listed on the IFTOMM 2015 website.

TRAVEL INFORMATION

Taipei can be reached by flight from all around the world to Taiwan Taoyuan International Airport (TPE) and Taipei Song Shan Airport (TSA). TIIC is located on Xinyi line of MRT. Taiwan Taoyuan International Airport: <http://www.taoyuan-airport.com/english/index.jsp>
Taipei Song Shan Airport: <http://www.tsa.gov.tw/tsa/en/home.aspx>

ORGANIZED BY

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Contact: iftomm2015@elitepc.com.tw /
IFTOMM Web: www.iftomm.org / Conference Web: <http://www.iftomm2015.tw>

ISMA'15

10th International Symposium on Mechatronics and its Applications
December 8-10, 2015, Sharjah, United Arab Emirates

Call for Papers

ISMA'15 is the tenth of a series of symposia focusing on theoretical and practical aspects of mechatronics. It will be held by the Mechatronics Center at the American University of Sharjah, UAE, December 8-10, 2015. The symposium covers the synergetic integration of mechanical engineering with electronics, intelligent control, and design and manufacturing of industrial products and processes. The main idea of the symposium is to bring together scientists, scholars, engineers and students from universities and industries to exchange and promote research in the field of mechatronics, and hence to foster research relations between the universities and the industry in this field.

Scope of the Conference

Topics of interest include, but are not limited to:

- **System Integration:** Embedded systems, manufacturing systems, sensors, actuators, modeling and simulation, MEMS and NEMS, bio-mechatronics, autotronics, mechanism design and applications.
- **Robotics:** Robot kinematics and dynamics, unmanned vehicles, industrial robots, multi robotics, biomedical robotics, telerobotics, microrobotics, navigation, mapping, localization, SLAM, intelligent systems and vision.
- **Control Systems:** Real-time control, intelligent control, monitoring and supervision, observers, estimation and identification, machine learning and pattern recognition, nonlinear control, robust control, adaptive control, optimal control, digital control, distributed and networked control and control applications.
- **Industrial Automation:** Electronics, industrial process control, PLC systems, DCS and SCADA.
- **Renewable Energy and Sustainable Systems:** Mechatronics applications for control and automation of renewable energy, sustainable systems, sustainable production and smart buildings.
- **Education:** Mechatronics education, virtual labs, e-learning in mechatronics, curriculum development and project-based education.

Prospective participants from all over the world are invited to submit their work using our EDAS online submission system:

<https://www.edas.info/newPaper.php?c=19691>

The authors should follow the guidelines posted on the symposium website: www.aus.edu/isma15.

Submitted papers will be peer reviewed. Accepted and presented papers will be published in the proceedings of the ISMA'15 symposium. All accepted and presented papers will be published in IEEE Xplore. Selected papers will be published in a special issue of a reputed journal.

The organizing committee welcomes proposals for special sessions and tutorials to be held in conjunction with ISMA'15. Please send your proposals by email to isma15@aus.edu.

Important Dates

Submission of a draft paper	June 15, 2015
Tutorial and special session proposals	June 15, 2015
Notification of acceptance	September 15, 2015
Camera-ready full paper submission	October 15, 2015

General Chair

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AUS Mechatronics Center
www.aus.edu/enor/mechatronics

Social Program

An attractive social program including a visit to the heritage areas, Burj Khalifa tower, museums and shopping centers in Sharjah and Dubai, as well as a half-day desert safari, will be organized.

For More Information

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Student Poster Competition

A student poster competition will be held during the conference. Prizes will be awarded to the best three posters.



Students are invited to submit their research or project work in the area of conference topics.

To enter, submit a two-page paper in two-column format describing the contributions that will be shown in the poster to isma15@aus.edu by September 15, 2015. Accepted students will be notified. Note that papers submitted to the conference do not qualify for the poster competition.


Sponsors



**2nd International and 17th National Conference
on
Machines and Mechanisms
(iNaCoMM-15)
December 16-19, 2015**
organized by
Department of Mechanical Engineering





IIT Kanpur
Under the aegis of



Association for Machines and Mechanisms

&



**IFTOMM
International Federation
for the Promotion of
Mechanism and Machine Science**

Introduction

The Department of Mechanical Engineering, IIT Kanpur, under the aegis of the Association for Machines and Mechanisms (AMM), and International Federation for the Promotion of Mechanism and Machine Science (IFTOMM) is hosting the 2nd International and 17th National Conference on Machines and Mechanisms (iNaCoMM 2015). The convention will be held on campus during December 16th- 19th, 2015.

Highlights of iNaCoMM-15

iNaCoMM 2015 is the 17th National and 2nd International in the series of biennial conferences on Machines and Mechanisms organized under the aegis of AMM and IFTOMM. The convention aims at bringing together researchers, industry experts and students, working on various aspects of design and analysis of machines and mechanisms, to deliberate via oral and poster presentations on recent, novel advances.

iNaCoMM 2015 will feature eminent researchers from India and overseas, as plenary speakers. The Conference is planned to commence with an introductory lecture on history and evolution of machines and mechanisms followed by a series of workshops on haptics, static balancing, precision mechanisms, and/or smart material-based mechanisms.

Each day thereafter will commence with a plenary talk by an eminent scientist followed by interesting morning and afternoon presentation/poster sessions on analysis and design of rigid body and compliant mechanisms, advances in biomedical devices, dynamics/control/vibration analysis of multi-body systems (special session) and machines, health monitoring, applications for rural environment and agriculture, mechatronic, micro- and nano- systems, and numerous other topics.

The day will culminate with another plenary lecture followed by soothing, recreational performances by our students from Music, Dance and Dramatics Clubs. Professional and Classical, music and dance nights are also planned.

Numerous industry representatives will also showcase recent technological advances in hardware and software.

Scope

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

- Agricultural and Industrial Applications
- 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, Mechatronic Systems
- Micro- Nano-Machines and Mechanisms
- Modeling and Simulation
- Robotics
- Theoretical and Computational Kinematics
- Tribology
- Vehicle Dynamics

Call for Papers

Authors are invited to submit a two-page extended abstract at the conference website www.inacomm2015.org by **May 1st, 2015**. The official language is English. Acceptance of the abstracts will be communicated by **May, 15th, 2015**. Full paper submissions followed by the camera ready prints in the Conference template are expected by **November 15th, 2015**.

Important Dates

Submission of Abstract	May 1, 2015
Acceptance of Abstract	May 15, 2015
Submission of Full Paper	July 1, 2015
Notification of Decision & reviewer comments.	Oct. 1, 2015
Final submission of Camera-Ready Prints addressing of reviewer comments.	Nov. 15, 2015
Registration	Nov. 15, 2015

(one author must register for inclusion of paper in Conference Proceedings)

Registration Fees

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

Advisory Committee

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Accommodation

On campus accommodation is available on payment basis at IIT Kanpur guest house/student hostels on first cum first served basis.

Organizing Committee

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P K Panigrahi (Head, Mechanical Engineering)

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Sharma Ishan
Upadhyay Chandrashekhar
Venkatesan C.
Venkatesh K.

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Nikhil Gupta

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Fax : +91-512-2597408
e-mail: inacomm2015@gmail.com

For updates, please visit
www.inacomm15.org

About IIT Kanpur



IIT Kanpur is a mini-academic city, a self sustained, lush green campus spread across 1055 acres hosting about 14,000 inhabitants. The campus is well-equipped with infrastructure catering to our academic, culinary, residential and recreational requirements. It offers an innate picturesque ambience that is consistently energizing and calming.

IITK experiences all seasons – the scorching heat of the summer, the wet, humid afternoons of the rainy season, and the chilly and hazy nights of the winter. Our hallmark is the presence of peacocks on campus, often lurching on the green grounds or resting on high branches.

Tourism sites in and around Kanpur



India is an experience! A visit to IIT Kanpur comes with a unique advantage of exploring the rich and diverse heritage of Northern India. Kanpur is home to several historical sites, e.g., Bithoor, Ghatampur and Shivrajpur. Visits to the mystic ghats of Varanasi, ancient ruins of Kaushambi, architectural splendor of Khajuraho, clouds touching down in Nainital, moonlit Taj and the transcendent beauty of the Himalayas are bound to leave one enriched and craving for more.

Student Mechanism Design Contest

www.inacomm15.org

Objective:

A key objective is to promote innovation among students. Students are encouraged to apply theoretical knowledge in the domain of mechanisms and machines to solve problems relevant to the society.

Award:

The Association of Machines and Mechanisms (AMM) has approved 3 prizes for the Student Mechanism Design Contest. The winning entry will receive 10,000 INR while the 2nd and 3rd prizes are of 6,000 and 4,000 INR each.

Who can participate?

Participation is restricted to individuals/groups of students (up to three members). ALL registered as full-time students/research scholars/project staff in recognized institutes.

How to participate?

Participants are invited to submit proposals for design, construction and operation of mechanisms which are innovative and capable of solving a challenging design problem. The design problem may be chosen from a wide range of application domains - from agricultural and rural technology to automobile and aerospace engineering. Examples include:

1. A Tree climbing mechanism.
2. Walking mechanism (with two or more legs).
3. Mars-rover type small vehicle which can climb over significant obstacles.
4. Staircase climbing mechanism.
5. Foldable mechanisms, which can be deployed as useful structures, e.g., space-efficient beds, tables and other furniture, etc.
6. An ergonomic device to help crush manually, to prepare road "aggregate" in rural applications.
7. An economical cable way system to transport materials (level and sloping grounds).
8. Ergonomic design for rod-bending machine, commonly used at construction sites.
9. A foot-operated substitute of the hand-pump.
10. Automatic operation of traditional games, such as table tennis return function.

The above listing is only representative. Participants are free to innovate on their own.

Following additional points may also be noted:

1. The mechanism could be manually powered or operated by a small motor or engine.
2. Operational safety of the mechanism/machine and the power source is of utmost importance. Unsafe machines will not be allowed for demonstration.
3. It is suggested that the mechanism be light and compact, and easy to transport, assemble and operate at the venue. Significant modifications/repairs cannot be done at the venue.
4. Machines using significant artificial intelligence (robots) are not allowed. However, some sort of remotecontrol from an operator is allowed.
5. The prototype machine must be operated satisfactorily in front of the judges, and each machine will be given at most three chances, to demonstrate its performance.

Procedure and deadlines:

1. Participants must submit a 2-page proposal by October 1st, 2015, outlining the design challenge and novelty/innovation of the proposed design. Submissions should be done through email, with the subject line: Proposal for the Students' Mechanism Design Contest, to the following addresses: anupams@iitk.ac.in, inacomm2015@gmail.com.
2. Decisions will be sent out by October 15, 2015, and participants with promising proposals would be requested to proceed towards developing a working prototype.
3. Participants have to submit details of the prototype by November 10th, 2015, including photographs or video clips. Please e-mail all material as a .zip file attached to an email to anupams@iitk.ac.in, inacomm2015@gmail.com with the subject line "Update on SMDC entry".
4. Reviews of the prototypes will be sent out by November 20th, 2015, and successful participants will be requested to participate in the final round, to demonstrate their working prototypes during iNaCoMM 2015 at IIT Kanpur. Those invited for final presentation will be provided TA/DA.
5. Finished prototypes are to be demonstrated before a panel of judges.
6. Winners will be adjudicated based on the extent of innovation, difficulty of the design challenge, effectiveness of the proposed solution towards solving the actual problem, etc.
7. In any matter related to the contest, decision of the judges and/or the organisers would be final and binding.



28th International Conference on CAD/CAM, Robotics and Factories of the Future 2016
6th – 8th January 2016

<http://www.cemkolaghat.org/cadcamconf>



The International Society for Productivity Enhancement (ISPE) and College of Engg. & Management, Kolaghat, WB, India are proud to announce the 28th International Conference on CAD/CAM, Robotics and Factories of the Future. The organizing committee is calling all researchers, engineers and scientists around the world to contribute to the conference. Poster submissions are also encouraged reporting on work in progress. Full papers are invited in, but not limited to, the following topics:

- A. Product Development and Sustainability
- B. Modeling and Simulation
- C. Automation, Robotics and Handling Systems
- D. Supply Chain Management and Logistics
- E. Advanced Quality Systems Tools and Quality Management
- F. Advanced Manufacturing Processes
- G. Human Aspects in Engineering Activities
- H. Emerging Scenarios in Engineering Education and Training
- I. Smart Factories

Conference proceedings

Conference proceeding will be published by Springer through double blind review process as per Springer guidelines. Also a few selected and best papers will be again published in several reputed journals such as Journal of Computational Design & Engineering (Elsevier), International Journal of Bio-Mechatronics & Biomedical Robotics (Inderscience), International Journal Manufacturing Technology & Management (Inderscience), International Journal of Mechatronics, Electrical and Computer Technology (IJMEC), Universal Scientific Organization, Journal of Mechatronics and Intelligent Manufacturing (Nova science)

Tentative Speakers

- Chief Guest**
- Prof. Raj Gill, Middlesex University, UK
- Guest of Honour**
- Professor Hrish Bera, Colombia and South Bank University, UK
- Tentative Speakers**
- Professor Chanan Syan, University of West Indies
- Professor Andrew Yeh-Ching NEE, National University, Singapore
- Prof. Ashish Dutta, IITK
- Dr. Subir Kumar Saha, IITD
- Prof. Ashitava Ghosal, IISc, Bangalore
- Dr. Prabir K Pal, DRHR, BARC, Mumbai
- Dr. D. N. Badodkar, BARC, Mumbai
- Dr. Pradeep Kumar, VSSC, Thiruvananthapuram

Key Dates

- 15th August 2015: Final Call for Full Papers
- 30th August 2015: Acceptance of Papers
- 15th September 2015: Final Acceptance of Papers
- 30th September: Final Paper Submission in Format
- 30th August 2015: Online Registration and Payment Opens
- 30th September 2015: Early Bird Registration and payment

Conference Chair

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