QIP Short-course
on

Tribology of Soft-Matters: Bio-Tribology, Microsystems and Automotive applications

7-11 November 2016

Organized by

DEPARTMENT OF MECHANICAL ENGINEERING & INDUSTRIAL TRIBOLOGY, MACHINE DYNAMICS AND MAINTENANCE ENGINEERING CENTRE.

INDIAN INSTITUTE OF TECHNOLOGY DELHI, INDIA

Convenors:

Dr. Sujeet K. Sinha (sks@mech.iitd.ac.in)
Dr. Deepak Kumar(dkumar@itmmec.iitd.ernet.in)
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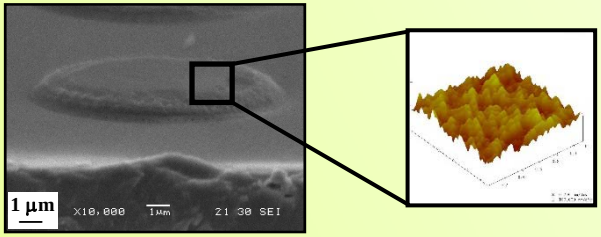
Introduction

Soft materials such as polymers, polymer-composites, polymer-gels, biological materials (e.g. bones and muscles) and organic coatings are used in many applications where tribology is of primary concern. This 5-day short course will provide a platform for learning and exchange of information on the tribology of soft-matters. The course will feature talks by several experts working in the field with applications in bio-tribology (hip/knee joint etc.), microsystems tribology (MEMS), nanotribology and automotive (engines, bearings, brakes etc.) applications. The talks will deal with friction, adhesion, wear and other important mechanical properties of soft materials. The participants will also get the opportunity of hands-on practical on some of the state-of--the-art tribology research equipment such as tribometers and surface analytical tools. Each day, there will be lectures and practical sessions involving various aspects of tribology research.

Who should attend this course

The course will be suitable for young faculties in various engineering colleges and institutes, researchers wishing to work in the field of tribology, industry professionals working in the field of friction, wear and lubrication. A minimum qualification of a bachelor's degree in relevant engineering or science field is required. As ***seats are limited***, the participants will be selected based on educational qualifications and working experience.



Participation

This Quality Improvement Program (QIP) course is open to faculty members of AICTE recognized degree level science & engineering/ management colleges, technical universities/ deemed universities. The candidates are required to attach a demand draft (refundable) of Rs. 500/- in favour of "**Registrar, IIT Delhi**" and the same should be sent to the Course Convener (**Dr. Deepak Kumar**) at the earliest but not later than October 10, 2016. This demand draft will not be refunded in case a selected participant does not attend the course. The selected candidate will be paid maximum three tier AC train fare by the shortest route as per the IIT Delhi norms. The accommodation can be made available at IIT Delhi campus. The selection is based on relevance of the qualification and research / teaching experience to the QIP course.

Confirmed Speakers:

Prof. Jayashree Bijwe

Professor at the ITMMEC, IIT Delhi. She is a world renowned expert in the design, fabrication and testing of various brake-pads specializing in asbestos-free and other formulations for automotive applications

Prof. A. P. Harsha

Professor at IIT BHU. His research expertise is in the field of bio-tribology dealing with polymeric materials such as polyetheretherketone and ultra-high molecular weight polyethylene.

Dr. Myo Minn

Research Fellow, Rolls-Royce@NTU Corporate Lab, School of Mechanical and Aerospace Engineering, Nanyang Technological University, Singapore. He specializes in thin film tribology using hard and soft coatings.

Dr. Om Prakash Khatri

Senior Scientist at the Indian Institute of Petroleum, Dehradun. He specializes in graphene and graphene based materials, self-assembled monolayers and other chemically designed surfaces for tribology.

Dr. M. Abdul Samad

Assistant Professor, Mechanical Engineering, King Fahd University of Petroleum & Minerals, Saudi Arabia. He has wide interests in the field of polymer composite coatings for boundary and self lubrication.

Dr. Deepak Kumar

Assistant Professor at the ITMMEC, IIT Delhi. His interest lies in the areas of emulsified lubricants, surface and interface, nanocomposite greases.

Dr. Nitya Nand Gosvami

Assistant Professor, Applied Mechanics, IIT Delhi. His main interests are in the field of nanotribology, friction and wear at micron to nano scales.

Dr. R. Arvind Singh

Professor, Aerospace Engineering, BIT Tamil Nadu. He is a world renowned researcher in the field of bio-inspired modifications of surfaces, nano surfaces.

Dr. Naresh V. Datla

Assistant Professor, Mechanical Engineering, IIT Delhi. He is expert for mechanical properties and adhesion properties of polymers and polymer composites including biomaterials.

Dr. R.R. Sahoo

Senior Scientist at Central Mechanical Engineering Research Institute Durgapur. His interest lies in the surface engineering, organic thin films

Dr. Sujeet K. Sinha

Associate Professor, Mechanical Engineering, IIT Delhi. He has expertise in the field of polymer tribology and soft coatings, and fabrication of tribo-testers.

REGISTRATION FORM

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INDIAN INSTITUTE OF TECHNOLOGY DELHI, INDIA

Name:.....

Date of Birth:.....

Designation:.....

Organization:.....

Qualification:.....

Teaching Experience:.....

Area of specialization:.....

Correspondence Address .....

.....

.....Pin:.....

Telephone:.....Mobile:.....

E-mail:.....

Details of DD: Amount:.....DD No.....

Drawn on:.....

Applicant's Signature:

Signature and Seal of the sponsoring authority *(Mandatory)*

Name:

Designation:

Date:.....Place:.....

Please send this filled, signed and scanned form along with one page curriculum vitae (CV) and copy of DD to: dkumar@itmmec.iitd.ernet.in

Accommodation Required: Yes/No

(On campus accommodation for the participants will be tried but can not be guaranteed)