

## IndiaTrib-2024

On "Tribology for Sustainable Growth"



**December 19 - 21,2024** 

Fairfield By Marriott, Kolkata, India

**Organized by:** 





Tribology is defined as the science and technology of interacting surfaces in relative motion. It involves friction, wear, lubrication and many other surface-related phenomena. Although the Tribological problems and solutions have been the subject of human endeavor since the antiquity, the word Tribology was first mentioned in a UK Government report in 1966, prepared under the chairmanship of (Late) Sir H. Peter Jost. Many studies since then have clearly shown that there are huge economic losses incurred globally because of tribological issues. It is estimated that about 1.4% of the gross national product (GNP) of industrialized nations could be saved by paying attention to the losses due to tribological contacts and providing appropriate engineering and operational solutions. There will be even greater savings in the global energy and materials consumption if friction in machines can be minimized and controlled. Efficient tribological solutions reduce energy losses, conserve materials and minimize environmental degradation in the long run. Tribology holds tremendous potential for enabling sustainable growth across broad spectrum of industry and economy, thus contributing to the social capital of a country and the world.

With the aim of addressing the issues pertaining to tribological problems and their solutions, Tribology Society of India is proud to announce IndiaTrib-2024, an international conference bringing together the research community, academia, practitioners from key industries and thought leaders from across the globe.



## Scope of IndiaTrib-2024

The focus of IndiaTrib-2024 is on the crucial role that Tribology can play in promoting *Sustainable Growth*. The scope will thus encompass fundamental principles, design/engineering techniques, operational practices and potential for conserving, energy, materials and environment. The conference will highlight various innovative solutions and emerging technology trends in Tribology. The scope of the conference will include, but not be limited to, the following topics:

- Tribology of Machine Elements
- Fundamentals of Friction
- Wear Mechanisms
- Surface Treatment & Coatings
- Adhesion, Contact Mechanics & Friction
- Lubrication, Lubricants & Additives
- Tribo-Testing
- Renewable Energy
- Wind Turbines
- Marine
- Automotive including Electrical Vehicles
- Space Applications
- Nuclear
- Nanotribology
- Bio-Tribology
- Tribology in Metalworking

- Tribology in Design & Manufacturing
- Tribology in maintenance of machinery
- Innovations in Tribology
- Tribology and Education
- Tribo-Corrosion
- Artificial Intelligence and Machine Learning applications to Tribology
- Tribological Materials
  - Green Tribology
- Drag Reduction in Miniature Flying structures through Tribology
- Case studies related social impact of tribology
- Tribotronics



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#### **Call for Oral and Poster Presentation**

Engineers, scientists, academicians and practitioners in Tribology are invited to present technical papers in line with the Theme of the Conference. Prospective contributors are requested to submit abstract of their papers in about 250 words latest by August 15, 2024 for review and selection. Further instructions on the format of the abstract will be provided on the TSI website: <a href="https://www.tribologyindia.org">www.tribologyindia.org</a>.

If you would like to be included in the general mailing list of this conference, then please send an e-mail to <a href="mailto:info@tribologyindia.org">info@tribologyindia.org</a> so that we can send you all the future updates about this conference.

Authors of selected papers are required to submit extended abstract of their papers (up to 3 A4 size pages) latest by September 30, 2024. The guidelines for authors and template for the extended abstract and posters will be available for download from the TSI website. All papers will be subjected to review by a Technical Committee and the decisions will be conveyed to the authors accordingly. Authors will retain the copyrights of the abstract submitted and it will be their responsibility to ensure that copyrights of others are not infringed upon while submitting the abstracts.

Prospective contributors are requested to forward their abstract by

August 15, 2024 to: September 30, 2024

Technical Convener: Dr Manjesh K. Singh, IIT Kanpur

Mob. No.: +91-8858612169

E-mail: indiatrib2024@gmail.com



#### **Publications**

IndiaTrib - 2024 "Tribology for Sustainable Growth"

Full manuscript of the papers presented in this conference can be submitted to Journal of Tribology Science & Technology for normal review and publication.

#### **Important Dates**

Receipt of Abstract : August 15, 2024 September 30, 2024
Acceptance of Abstract : Within two weeks of submission

Extended Abstract (3-pages): September 30, 2024

Early Bird Registration : October 15, 2024 (Deadline)

#### **Awards:**

Following awards will be given under academia (only students) and industry category during this conference:

Best Oral Paper Best Poster Paper Runner-up Oral Paper Runner-up Poster Paper

The papers will be selected for these awards by a committee and the decision of the committee will be final. The presenters of the papers considered for award under academia category must to he he student at an university/institute at the time of presentation. Submission of a full paper for publication in the Journal Ωf Tribology Science and Technology (JTST https://www.tribologyindia.org/online-submission-form.html) deadline of October 15, 2024 will be given some weightage towards the selection for the awards.



#### **Technical Exhibition**

With a view to highlight the advancements made in the area of Tribology, it is planned to organize a Technical Exhibition along with Conference. Lubricant & Additive Suppliers, Equipment the Manufacturers, Tribology Specialists, Service Providers, Techni-cal Book Publishers and related agencies are invited to participate in the Technical Exhibition to highlight their products and services. Exhibition space of about 3x2 m will be provided to each Exhibitor. A fee of INR (₹) 99,000/- (USD (\$) 1,430) (including GST) will be charged for each exhibition stall, which will be provided with adequate furnishing and basic illumination facilities. Each Exhibitor will be entitled to send one complimentary delegate to attend the Conference.

#### **Business Meet**

Manufacturers/suppliers of equipment, lubricants, additives and service providers related to Tribology are invited to the Conference to project their products, services and innovations through multimedia presentation in the special sessions called Business Meet. A fee of INR ( $\stackrel{?}{}$ ) 77,000/- (USD ( $^{$}$ ) 1,100) (including GST) will be charged for each presentation of 15 minutes duration. One complimentary delegate from each of the participating organizations in this session will be allowed to attend the Conference.



# **Conference Registration Fees:** The following Conference Registration Fees are payable by different categories of Delegates:

Category			TSI Member*		Non-Member*	
	900 OC		Regular	Early Bird#	Regular	Early Bird#
ES	Industry & Industrial R&D	€	₹ 17,500	₹ 16,500	₹ 20,000	₹18,000
INDIAN	Academic (Faculty)	INR	₹ 13,000	₹12,000	₹ 14,500	₹13,000
	Academic (Student)##		₹8,000	₹7,000	₹9,000	₹ 8,500
OVERSEAS	Overseas Delegate (Industry)	(\$)	\$ 700	\$ 640	\$ 760	\$ 700
	Overseas Delegate (Faculty)	OSD (	\$ 590	\$ 530	\$ 650	\$ 590
	Overseas Delegate (Student)##		\$ 350	\$ 320	\$ 420	\$ 390

<sup>\*</sup>Includes GST

## Student registration must be accompanied by a letter from supervisor/advisor or head of the department confirming student status at the start date of the conference.

**Spouse registration** at INR ( $\gtrless$ ) 7,000 (including GST) for Indian delegates and USD (\$) 180 (including GST) for International delegates (No conference kit included).

#### The Registration fees include:

- Technical Sessions and Cultural Evening
- Conference Proceedings in soft form
- Printed Materials
- Conference Kit
- Three Lunches, Tea & Coffee
- Conference Banquet Dinner

 Cancellation Policy: Cancellation request mail should be sent to info@tribologyindia.org (stating name & registration no.). In case of cancellation till 15 November, 2024 a refund of 50% of the registration fee will be made, less bank charges and administrative fee. No refund will be made for cancellation received after 15 November 2024.

Registrations are accepted online only. Please visit:

https://sites.google.com/view/indiatrib-2024/home www.tribologyindia.org

<sup>#</sup> Early bird registration by October 15, 2024



## **Conference Sponsorship**

The Conferences organised by TSI in the past have always received significant support from various industries. These include practically every industry sector like Oil & Gas, Steel, Mining, Chemicals, Power, Engineering and Allied Industries, both from India and abroad. The sponsors get wide publicity and networking opportunities as part of the Conference. Reputed Companies, Organisations and Trade Associations are invited to join this International Event as Sponsors of the Conference. The details are given below.

Sponsorships	INR (₹)*	USD (\$)*	Free Delegates	Souvenir Ad. Full Page	Publicity	Technical Exhibition	Business Meet
Platinum	7,00,000	7,500	5	Yes	Logo	Yes	Yes
Diamond	5,00,000	6,000	3	Yes	Logo	Sele	ect one
Gold	3,00,000	3,000	2	Yes	Logo	Sele	ect one
Silver	1,50,000	1,500	1	Yes	Logo		

<sup>\*</sup> Includes GST

#### **Advertisements**

Souvenir, containing Book of Extended Abstracts, Conference details and informative articles, will be released during the Conference and will be provided to each registered delegate. Advertisements for the Souvenir can be booked at the following rates\*:

Category	INR (₹)*	USD (\$)*
Back Cover (Colour)	80,000	1,200
Inside (Front/ Back) colour	60,000	900
Colour Full Page	30,000	500
Black & White Full Page	20,000	300

The advertisement material is to be provided in a high-resolution, print-ready file.

<sup>\*</sup> Includes GST

Fee for extra dinner ticket: Rs 3750 (including GST and subject to availability)



### **Payment Details**

All payments related to Delegate Registration Fees, Industry Sponsorship, Advertisements, Technical Exhibition, Business Meet, Education Course Fee etc., are to be made through crossed demand draft / cheque payable at par, drawn in favor of "Tribology Society of India" payable at IOC Complex, Faridabad. Money can also be transferred directly to the Conference Account as given below (please send proof in case of direct transfer):

A/c Name: Tribology Society of India

A/c No.: 31710524711
IFSC/NEFT: SBIN0010449
Swift Code: SBININBB383
MICR No.: 110002466

Bank Name: State Bank of India

Branch Address: IOC Complex Branch, Sector 13,

Faridabad - 121007, INDIA

TSI GSTIN No.: 06AACAT3031B1Z6

TSI PAN No.: AACAT3031B



#### **ACCOMMODATION**

IndiaTrib - 2024
"Tribology for Sustainable Growth"

Organisers have done block booking of rooms for

accommodation at:

Fairfield by Marriott, Kolkata 218, CB Block, Action Area 1C, Newtown, Kolkata–700156 Tel: +91-33-66664444



Special rates negotiated with Hotel:

Rooms: Single/Double	Special Rate (CP) + 12% GST
Superior Room	INR 6899/- per night

- > Extra Mattress: INR 1500/- plus taxes per night
- ➤ Check in time: 1500 hours and Check out time: 12 noon
- Room included Buffet Breakfast, Access to health club & swimming pool and Wi-Fi access

For Accommodation: Please contact Mr. Arun email: info@tribologyindia.org

Rooms will be allotted on "First Come First Served Basis"

Please confirm your room requirements latest by 31st October 2024.



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## **About Tribology Society of India (TSI)**

Tribology Society of India (TSI) is the leading professional society promoting Tribology awareness and practices in the country. It was set up as a non-profit body bringing together academicians, industry as well as research organizations as its members. It was set up in its present form, in June 1989, with its headquarters at Bharat Heavy Electricals Limited, Corporate R&D at Hyderabad. The Society is currently operating at its registered office, C/o Indian Oil R&D Centre, Sector 13, Faridabad (Haryana), since December 2010. TSI is affiliated to the International Tribology Council, UK.

The activities related to Tribology in the country formally started way back in 1972, when the First World Conference on Industrial Tribology (WCIT) was organized by Indian Institute of Technology at New Delhi. Continuing with this, a series of National and International Conferences had been organized in the last 49 years. Besides, there are a number of academic and industrial centers in India actively pursuing research related activities in this area. TSI organizes the bi-annual **IndiaTrib** and **Tribology**.

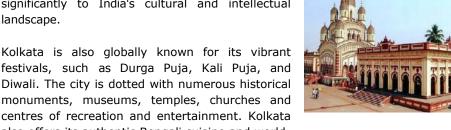
To fulfill TSI's mission, the Society has been organizing International Conferences on Industrial Tribology biennially in different parts of the country, to enable the practitioners of Tribology to discuss and showcase their work in various aspects of this multidisciplinary area, thus contributing to knowledge sharing and collaborative learning.



Kolkata, formerly known as Calcutta, is the capital city of the Indian state of West Bengal. It has a rich history and is one of India's major cultural, economic, and educational hubs. Kolkata is referred to as the "City of Joy" because of the enduring spirit and exuberance of its people. Kolkata played a leading role in Bengal's Renaissance as well as India's freedom movement during the 19th and 20th Century.



Kolkata has a rich cultural scene, with a deep appreciation for literature, arts, music, and intellectual pursuits, producing many worldrenowned personalities, who contributed significantly to India's cultural and intellectual landscape.



festivals, such as Durga Puja, Kali Puja, and Diwali. The city is dotted with numerous historical monuments, museums, temples, churches and centres of recreation and entertainment. Kolkata also offers its authentic Bengali cuisine and worldfamous sweets to thousands of visitors round the year.



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# Conference Venue

Reach Venue from

Fairfield by Marriott New Town, Kolkata



Netaji Subhash Chandra Bose International Airport, Kolkata

12 kms (25 mins Drive)

Howrah Railway Station, Howrah 24 kms (50 mins Drive)

## **Contact Details**

Dr T Singh

**Conference Chairman** 

Tribology Society of India
C/o R&D Centre, Indian Oil Corporation Ltd.

Sector-13, Faridabad-121007 Haryana

Email: info@tribologyindia.org

https://sites.google.com/view/indiatrib-2024/home

