

# 18<sup>th</sup> Summer School in Tribology



15<sup>th</sup> -19<sup>th</sup> June, 2026

At

Department of Chemical & Bio-Chemical Engineering

Rajiv Gandhi Institute of Petroleum Technology  
An Institution of National Importance, Government of India

## Organizers



Supported  
By:



Anusandhan  
National  
Research  
Foundation

## About The Program

The Department of Chemical Engineering, Rajiv Gandhi Institute of Petroleum Technology, under the aegis of the Tribology Society of India, is organizing the “18<sup>th</sup> TSI Summer School in Tribology” (18<sup>th</sup> SST) during 15<sup>th</sup> - 19<sup>th</sup> June, 2026 (Monday–Friday) to reinforce the need for continued education in tribology—an interdisciplinary science and technology of friction, wear, and lubrication. Some of the programs of the TSI Summer School in Tribology (SST) have been financially supported by SERB, a statutory body of the Department of Science & Technology (DST), Government of India, along with support from various industries.

Like earlier programs, 18<sup>th</sup> TSI SST is intended to provide a platform for interaction between reputed tribologists of the country and the participants, comprising senior teaching professionals and practising engineers/professionals from Indian industry. The curriculum has a balanced combination of theoretical and applied aspects of Tribology and includes a session on assessment of learning (based on multiple choice questions) on the last day. To enable the participants to carry forward their learning beyond the program, participants will be encouraged to take up projects in their place of work/study, focusing on the application of the leanings in some aspect of their own areas of work/research.

The program intends to provide opportunities to participants for interacting with leading researchers, industry experts and OEMs of Tribo Equipment through practical demo sessions and conducted visits to laboratory/ testing facilities.

## Who should attend?

- Faculty in Mechanical Engineering teaching Tribology or machine design and research scholars pursuing PhD in Tribology (limited to maximum 10 research scholars).

- Practicing Engineers/Managers from Industry working in Plant Design, Operation & Maintenance, Technical Services, Marketing personnel of Lubricants/additives companies, Industrial R&D from sectors like Automotive, Railroad, Oil & Gas, Steel, Power, Cement, Engineering and Heavy Machinery etc.

## Topics to be covered

**Basics of Tribology:** Basics of Friction, Wear and Lubrication; Wear of Materials and Wear Modeling; Wear Mechanisms and Mitigation of Wear by Tribology based Designs.

**Lubrication:** Fluid Film Lubrication & Hydrodynamic Bearings; Lubricants-different types and their production; Chemistry of Lubricants and Additives; Automotive Tribology and Grease Rheology.

**Tribology of Machine Components:** Rolling Element Bearings; Gears; Failure Analysis / Fault Diagnosis of Tribo Components

**Applied Tribology:** Tribo-testing of Material & Lubricants; Analytical Techniques for Tribology and Surface Characterization; Condition Monitoring through Oil Analysis.

**Special Topics in Tribology:** Nano-mechanics/properties of materials at small scales; Bio Tribology; Application of NDT in Tribology; Tribology of Manufacturing Operations; Corrosion.

**Surface Engineering & Coatings:** Surface modification techniques for tribological enhancement; Hard coatings (TiN, CrN, DLC) and their tribological performance; Surface texturing and patterning for friction control.

**Tribology in Energy Systems:** Tribological challenges in renewable energy systems; Wind turbine gearbox and bearing tribology; Tribology in thermal and nuclear power plants.

Case studies by industry experts will be presented during the program. We also propose to include guest lectures from eminent tribologists from industry and academia.

## Patron:

Prof. Harish Hirani, Director, RGIPT & President TSI  
Mr. Ajay Kumar Harinarain, Sr. Vice President, TSI  
Mr. Rajendra Mahapatra, Vice President, TSI  
Dr. Tarunendr Singh, Secretary, TSI  
Prof. Deepak Kumar, Jt. Secretary, TSI  
Prof. Ram Kumar P, Jt. Secretary, TSI  
Dr. Rameshwar Chaudhary, Treasurer TSI

## Coordinators:

Dr. Deepak Dwivedi  
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Dr. Roopa Manjunatha  
Mob. No: 7349566194 (rmanjunatha@rgipt.ac.in)

## RESOURCE PERSONS: (tentative)

Prof. Harish Hirani, Director RGIPT & President TSI  
Prof. Satish V Kailas, IISc, Bengaluru  
Prof. M S Bobji, IISc, Bengaluru  
Prof. Deepak Kumar, IIT Delhi  
Dr. Tarunendr Singh, Siddharth Grease & Lubes Pvt. Ltd.  
Prof. P Ramakumar, IIT Madras  
Prof. Harpreet Singh, IIT Ropar  
Prof. A. P. Harsha, IIT BHU  
Mr. Anjeeve George, Danfoss Technologies Pvt Ltd  
Dr. Harish C Barshilia, CSIR, NAL, Bengaluru  
Dr A Udaya Kumar, CSIR, NAL, Bengaluru  
Dr. Soumendu Jana, CSIR, NAL, Bengaluru

## For participants from Academia:

**No-delegate-fee** for the program is required to be paid by the Academia Participants. Lodging and boarding will be provided free of cost & Accommodation will be on "twin-sharing" basis. Selected participants may also be reimbursed to and fro travel cost, limited to II/III AC railway fare.

Faculty members teaching tribology or machine design and Research Scholars pursuing Ph.D. in Tribology may apply online through the link given below by **25th April 2026** / <https://www.tribologyindia.org/online-registration-form-for-academic-participants-18th.html>

(A) The selected candidates will be informed by **10th May, 2026**. All Academia participants selected will be required to take TSI membership.

(B) Bonafide certificate from Head of Institution / Department is required for the selected Academia candidates.

(C) In addition, the selected participants from academia will also be required to submit a Cheque of Rs 5000/- as an interest-free deposit, which will be refunded back to the participant during the program. In case of non- participation without a prior notice of 15 days before the start of the program, this amount will be encashed by TSI to cover the administrative expenses incurred.

(D) Academia candidates who have already attended any earlier SST need not apply.

**Academia participants, who are desirous of participation in 18<sup>th</sup> SST, but currently not members of TSI, can apply online for TSI membership at the link below:**

For TSI membership/registration click the link given below:  
<https://www.tribologyindia.org/become a member.htm>

## For participants from Industry:

**Residential Category:** A course fee of Rs. 40,000/- exclusive of GST covers boarding and lodging for 5 days, accommodation on twin-sharing basis for 5 days at RGIPT Bengaluru Campus will be payable by Industry participants choosing to stay in campus during the program. The course fee will cover the TSI program fee, course material plus food for five days during the program. There are limited numbers of seat available for Industry participants and the registration will be done on **first-come-first-served** basis.

**Non-Residential Category:** For Industry participants without availing campus accommodation, the course fee will be Rs. 30,000/- exclusive of GST (currently @18%).

The course fee will cover the TSI program fee, course material plus food for five days at RGIPT-Bengaluru Campus during the program. Participants can obtain proper invoices for all payments made for fees and services, if required by them.

Registration Form (Industry) link:  
<https://www.tribologyindia.org/pdf/regn-form-for-industry-participants-18thSST.docx>

The registration fee can be paid through NEFT/UPI 'Online banking' as per the following details:

A/c Name: **Tribology Society of India**  
Current Account Number No.: **31710524711**  
Bank's Name: **State Bank of India**  
IFSC / NEFT Code: **SBIN0010449**  
MICR No.: **110002466**  
SWIFT CODE: **SBININBB383**  
Branch Address: **IOC Complex Branch, Sector 13, Faridabad - 121007, Haryana, India**

TSI QR code for payments:  
<https://www.tribologyindia.org/images/qrcode.jpg>

(TSI GSTIN No.: 06AACAT3031B1Z6)



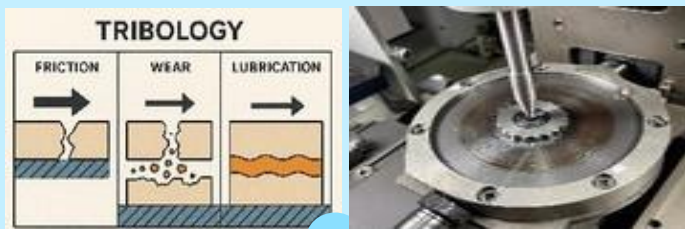
## About the Institute:

The Ministry of Petroleum and Natural Gas (MoPNG), Government of India set up the Rajiv Gandhi Institute of Petroleum Technology (RGIPT) through an Act of Parliament (RGIPT Act 2007). As per the RGIPT Statutes Act, it is empowered to establish Campuses across India for disseminating academic and research activities. Under its privileged mentorship, support and association, Energy Institute, Bengaluru rechristened to RGIPT Bengaluru Campus, is operating since 2018 in Bengaluru.

The Institute has commenced functioning from its Permanent Campus since October 2024 which occupies a land area of 150 acres, allotted by the Government of Karnataka, Kambalipura, Hoskote Taluk, Bengaluru. RGIPT Bengaluru Campus is envisioned to be an eminent institute offering academic and research programmes in the domain of energy. These programmes lie in-line with the Nation's Mission on Energy and its sub-areas.

The objective of Bengaluru Campus is to essentially contribute to the societal growth through research and development activities, energy innovation and entrepreneurship. The Institute also aims to offer quality education to students, offer short-term training courses to Industrial professionals and to meet the growing technological needs of in the field of Energy. The Institute is also aiming to create an Energy Experience Centre, showcasing the progress in the field of Energy.

<https://www.rgipt.ac.in/en/page/home-bangalore-campus>



## About the Tribology Society of India:

Tribology Society of India (TSI) was set up as a professional, nonprofit body bringing together academicians, industry experts as well as research organizations as its members, to promote the knowledge and practice of Tribology. It was set up in its present form in June 1989, with its headquarters at Bharat Heavy Electricals Limited, Corporate R&D at Hyderabad. Subsequently the headquarters were shifted to its current location at IndianOil R&D Centre, Faridabad. TSI is affiliated to the International Tribology Council, UK which has many other National Tribology Societies as members across the world.

Over the years, the subject of Tribology came to be recognized as a very important aspect in all industrial operations. The application of correct Tribological practices can protect and enhance the life of plants and machinery, improve efficiency of operations, reduce energy consumption and prevent expensive breakdowns. Major organizations and academic institutions in the country have realized the importance of Industrial Tribology and its relevance to modern design and efficient plant maintenance.

[www.tribologyindia.org](http://www.tribologyindia.org)

### Format of Registration Form for Industry Participants

Name of Participant.....  
Organization.....  
Designation.....  
Contact Address.....  
Email ID.....  
Mobile No.....  
Signature of Sponsoring Authority .....  
Name.....  
Designation.....



## Venue:

**Rajiv Gandhi Institute of Petroleum Technology**  
An Institution of National Importance, Government of India

Hoskote, Bengaluru - 562165, Karnataka, India

<https://www.rgipt.ac.in/en/page/home-bangalore-campus>



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