

Message from President— TSI

It has been close to a year the society opened up to physical mode of meetings. We at the Tribology Society of India conducted programs which were in the physical or hybrid mode. All will agree that the physical mode of meetings is much more meaningful. Even though traveling is more exhausting, it certainly gives joy when we meet in person. New contacts develop and new friendships develop. We at the TSI conducted two major programs in 2022. The first program was the Summer School in Tribology. This was a Hybrid Meeting. There were 28 people from academia and 10 people from industry that participated in the physical mode. The meeting was at IIPM, Gurugram. 41 from academia and 9 from industry participated in the online mode. As usual the Summer School covered most topic in tribology and I am sure that the participants benefited from it. The second program, IndiaTrib 2022, was conducted from the 12th of December 2022 to the 14th of December 2022 mostly in the physical mode. The conference which was to be held in 2021 was postponed to 2022. The program was a great one with some fantastic speakers from various countries. For many of the speakers from abroad it was the first time they visited India. One should congratulate the team from IITD consisting of Prof. Sujeet Sinha, Prof. Deepak Kumar and Prof. Nitya Nand Gosvami along with the team from TSI for organizing this wonderful program. The numbers of participants were more than 275. I too made some good acquaintances, especially students, during the conference. We also had a very lively TSI GBM. The feedback from the meeting should help TSI move from strength to strength. Apart from this, TSI conducted many online seminars organized by Shri Ajay Kumar, Chief General Manager of IOC (R&D) and Vice President (TSI).

As 2023 is moving forward we will be having more such programs. The Summer School in Tribology will be held at the Indian Institute of Science, Bengaluru from the 13th to 17th of June. The other major and more important program is the TribolIndia-2023, to be held at NIT Srinagar, during 5th-7th October 2023, under the leadership of Prof. M. F. Wani. It would be a great opportunity for all of us to meet in the wonderful city of Srinagar. Do expect an enthusiastic participation from all for these two programs.

We also request all TSI members to actively communicate and send innovative ideas / suggestions to office.tsi@tribologyindia.org, on how the Society can be made more vibrant, with a faster growth track.

With best wishes,

Prof. Satish V Kailas
President (TSI)

Message from Secretary – TSI



Dear Colleagues,

I have pleasure in communicating with you through this latest issue of our Newsletter. After a span of more than 2 years, finally the activities such as meetings, seminars and conferences started occurring in hybrid and physical mode, which was missing during the previous 2 years. Accordingly, we in TSI also carried out 2 important events during the past year, first one being the 14th Summer School in Tribology which was held in hybrid mode from 14th to 18th June 2022 at IIPM, Gurugram and the second one being IndiaTrib 2022 Conference which was organized by IIT Delhi under the aegis of Tribology Society of India in physical mode from 12th -14th December 2022 at Eros Hotel, New Delhi. We had a vibrant GBM at Eros hotel during the IndiaTrib 2022 wherein there were few valuable suggestions to make the activities more transparent and take the society to a greater height. The Minutes of Meeting document of the GBM is uploaded on the TSI website.

Taking the feedback from the participants of Summer School, TSI has taken a significant step to harness the power of Digital Technology by launching TriboConnect and TSI Technical Education Webinar Series, which are designed to provide deeper exposure on a given topic. These online webinars have received very good response from Tribology community in India, including many participants from outside India. We are committed to continue this online event and, accordingly, we conducted one TSI Technical Webinar on “Tyre Tribology”, presented by eminent Tribologists from ARAI - Pune on 24th March 2023. Similarly, we will organize the 15th SST from 13th to 17th June 2023 at the prestigious Indian Institute of Science, Bangalore in physical mode. The brochure of this event is available in our website. We request all to share the information of this program with your fellow tribologists who may be interested in participating in this program. The other important event, TriboIndia 2023, which is also an international conference, is scheduled to be held in the beautiful ambience of NIT Srinagar during 5th - 7th October 2023. We request you to participate in these events and make these a grand success. The new EC, under the guidance of President (TSI) and support of EC Members, is keen on organizing such activities aimed at disseminating knowledge in the multi-faceted area of Tribology. Please feel free to contact us on info@tribologyindia.org with your ideas and suggestions to make the society a good forum for interactions and working together.

With best Regards,

Rajendra Mahapatra

Secretary (TSI)

Tribo-Connect / TSI Technical Education Webinars

We have so far conducted the following Webinars over the last one year:
Tribology of Soft Material : by Dr. Kartik Pondicherry, ANTON PAAR INDIA Pvt Ltd
(11th May 2022)

The poster features the Tribology Society of India (TSI) logo and the text 'TSI TECHNICAL EDUCATION WEBINAR SERIES'. It specifies the date and time: 'WED, 11TH MAY, 2022 AT 15:00 INDIA TIME'. A portrait of Dr. Kartik Pondicherry is shown on the left. The central text reads 'DR. KARTIK PONDICHERRY ANTON PAAR INDIA PVT. LTD.' and '- Topic - TRIBOLOGY OF SOFT MATERIALS'. On the right is an illustration of a human knee joint with 'Articular Cartilage' labeled. Below the illustration, it says 'FIGURE: HUMAN HYALINE CARTILAGE, A SOFT BIO-MATERIAL'. At the bottom, it provides the image source as 'www.boneandspine.com' and lists lecture highlights: 'bio-tribology, ophthalmic systems, tribology of food, cosmetics, implants etc., test methodologies and challenges of soft materials'.

14th Summer School in Tribology (14th SST) June 14-18, 2022 (in hybrid mode)

In view of continued COVID pandemic, like 13th Summer School in Tribology, the 14th Summer School in Tribology was organized in Hybrid mode from June 14-18, 2022 (Tuesday-Saturday) at Indian Institute of Petroleum Management, (IIPM), Gurugram.

In line with earlier Summer Schools in Tribology (SST), 14th SST was intended to provide a platform for interaction between reputed tribologists of the country and the participants, comprising senior teaching professionals and practicing engineers / professionals from Indian industry. The curriculum had a balanced combination of theoretical and applied aspects of Tribology and included a session on assessment of learning (based on a one-hour MCQ type test) on the last day of the event.

Some of the highlights of the event are given below :

- Dr SSV Ramakumar, Director (R&D), Indian Oil had kindly graced the occasion as Chief Guest for the inaugural event.



ED IIPM ,Ms Urvija Bajpai lighting the inaugural lamp along with Dr SSV Ramakumar and Prof S V Kailas, President TSI



Dr SSV Ramakumar, addressing the participants during the inaugural function.

- We had a total of 88 participants for the event in physical as well as virtual mode. These included 28 from academia and 10 from industry in the physical mode, plus 41 from academia and 9 from industry in virtual mode. A group photograph of the participants in physical mode is shown below.



Group photo of the participants of 14th SST present in physical mode

- On the last day of the program, participants took part in an assessment session through a one-hour test with MCQ (multiple choice questions). The picture below gives a view of the participants taking the examination. Those attending the program in virtual mode also took the examination through Google platform at the same time.



Participants present in physical mode taking the MCQ based examination

- There was a feedback session by participants after the examination, which was attended by Mr. Kamal Mukherjee, EC Member, along with Mr. R Mahapatra, Secretary (TSI), Mr. Rahul B. Meshram, Treasurer (TSI) and Mr. A K Mehta ED (TSI).



Title Panel taking the feedback from the participants.

- All the participants in the physical mode were given “Participation Certificates”



Participants receiving Participation certificate during the concluding session

For more and complete details of 14th SST, kindly view them at the following https://www.tribologyindia.org/education_course_archives.htm

The link provides the following:

- 14th SST Brochure
- 14th SST- List of participants in physical and virtual mode
- 14th SST Group photograph
- Links for pictures taken during inaugural and concluding sessions, and
- 14th SST Technical program

IndiaTrib-2022

11th International Conference on Industrial Tribology (ICIT)

Theme : "Tribology for Energy, Environment and Society"

12-14 December 2022 | New Delhi, India

IndiaTrib-2022 was the mega tribology event in the series and was the 11th International Conference on Industrial Tribology (ICIT) being organized by the Tribology Society of India since the year 1997, when the first International Conference on Industrial Tribology was organized at Kolkata.

The previous IndiaTrib Conference was organized in 2019 at the Indian Institute of Science, Bangalore. IndiaTrib-2022 was organized by the Indian Institute of Technology Delhi (I.I.T. Delhi), during December 12-14, 2022 in Delhi, India's capital city, under the aegis of Tribology Society of India. The theme of the conference was "Tribology for Energy, Environment and Society".

Some highlights of the conference are given here, while complete coverage can be accessed through the link provided below.



The Chief Guest Prof Rangan Banerjee giving his inaugural address

IndiaTrib-2022 was inaugurated by Prof. Rangan Banerjee, Director - IIT Delhi. Others who graced the inaugural function included Prof. Ali Erdemir, President (ITC), and Prof Satish V Kailas, President (TSI).

Prof. Ali Erdemir, President of the International Tribology Council (ITC) delivered the first plenary lecture on "Tribological Challenges for a Sustainable E-Mobility: Recent Progress and Future Prospects"



Prof Ali Erdemir making the first Plenary Presentation

About 275 participants including all invited plenary and keynote speakers, speakers for different technical sessions, delegates, sponsors and organizers participated the event.



Group photograph of all participants for IndiaTrib-2022

The conference was attended by about 20 female participants as speakers, delegates



A group photograph of the women participants in IndiaTrib-2022

TSI had its General Body meeting (GBM) on the evening of evening of 2nd day of the conference. The meeting was attended by TSI members, Office Bearers and EC Members present at the event.



Mr R Mahapatra, presented Secretary's Reports for the year 2021-2022.



Prof Satish V kailas, President (TSI) addressing members at the GBM



Musical night: by a musical team from IIT Delhi

Also a Bhangra team stole the show by powerful dances, prompting the delegate and their families to join in for a memorable and unforgettable experience. The guests were treated with a Gala Dinner at the event.



The enthralling Bhangra performance at the event.

IndiaTrib-2022: Awards for Best Papers

Best Oral Paper Award	: Ms. Preeti Banzare (M/s John Deree), Paper ID # 60
Best Poster paper award	: Mr. Jaswant Kumar Hirwani (IIT Delhi), Paper ID # 131
Runner-up to Best Oral Paper	: Dr. Atul Singh Rajput (IIT Guwahati), Paper ID # 289
Runner-up to Best Poster Paper	: Dr. Abhinava Chatterjee (IIT Delhi), Paper ID #154

IndiaTrib-2022: Young Tribology Awardees

List of the Awardees for Young Tribologists Award sponsored by TTRF:

1. Dr. Manjesh Kumar Singh (Department of Mechanical Engineering, IIT Kanpur, India)
2. Dr. Atul Singh Rajput (Department of Mechanical Engineering, IIT Guwahati, India)
3. Dr. Vimal Edachery (Department of Mechanical Engineering, IIT Madras, India)
4. Dr. Akepati Bhaskar Reddy (KTH Royal Institute of Technology, Sweden)
5. Dr. Naoki Yamashita (Graduate School of Engineering, Kyoto University, Japan)

Links for IndiaTrib-2022: Detailed coverage of the conference can be viewed at the following link in TSI website: <https://www.tribologyindia.org/archive-for-tribology-conferences.htm>

The link provide to access the following :

- © IndiaTrib-2022 Brochure (3rd Announcement) © IndiaTrib-2022 Sponsors & Exhibitors with Supporting organizations © IndiaTrib-2022 Technical Program with Schedule © IndiaTrib-2022 Extended Abstract Book © IndiaTrib-2022 Participants' Registration list
- © IndiaTrib-2022 Conference Photographs link

Award & Accolade for Mr. Ajay Kumar Harinarain, Chief GM, IndianOil (R&D) and Vice President - TSI



Mr. Ajay Kumar Harinarain, Vice President Tribology Society of India and Chief General Manager (Lubricant Technology-Industrial) has been conferred the prestigious *NLGI Golden Grease Gun Award* for the year 2022 from the National Lubricating Grease Institute (NLGI) USA during the NLGI 89th Annual meeting at Toronto Canada from 12-15 June 2022. This award is in recognition of his contribution in writing the chapter titled 'Testing of Lubricating Greases' in the NLGI Lubricating Grease Guide (Seventh Edition) drawing upon his experience and knowledge in the Tribotesting of Greases and their introduction in automotive and industrial applications. The NLGI Lubricating Grease Guide is an authoritative publication brought out by NLGI - the premier International body in the field of lubricating greases. The Golden Grease Award acknowledges valuable work done by individuals in the development of grease technology, manufacturing, testing and applications.

He has also been selected as a Technical editor for the STLE magazine TLT (Tribology and Lubrication Technology) for the year 2023. This selection was based using a rigorous selection procedure from amongst many highly qualified individuals working in the lubricants industry practicing Tribology. In this role he will work on TLT's editorial agenda and contribute towards furthering lubrication industry's body of knowledge. Based on his contributions for the year 2023, the editorial board has asked him to continue as a Technical Editor for the year 2024.

----- *Hearty Congratulations ! You have done TSI proud* -----

Tribology and Surface Engineering Lab Indian Institute of Technology Tirupati (A.P.) India

IIT - Tirupati, established in 2015, is an Institute of National Importance under the Act of Parliament of India (Institutes of Technology Act, 1961). IIT Tirupati started functioning with the support of its mentoring institute, IIT Madras, in the academic year 2015-16. IIT Tirupati is the first among the 3rd phase of IITs, announced in 2014. The academic programs include B.Tech., M.Tech. and Ph.D streams in the fields of Civil, Computer Science, Electrical, Mechanical and Chemical Engineering.

Department of Mechanical Engineering has started [Advanced Materials Manufacturing and Tribology \(AM²T\) Research Laboratory](#) at IIT Tirupati. [Tribology and Surface Engineering](#) facility was inaugurated on 3rd June 2022 by Prof. Satish V. Kailas, President TSI.



Prof. Satish V. Kailas, President (TSI) inaugurating the Tribology and Surface Engineering Facility with Dr Ajay Kumar (IIT Tirupati), Prof. Praveen Kumar (IISc Bangalore) and Mr. Pratyank Rastogi (Industron India) along with students of IIT Tirupati



Multifunctional Tribometer by RTEC USA



Instrumented Micro Hardness Machine by Nanatom Bangalore

Scientific Workshop

on

Nanomechanical & Nanotribological Testing

(3rd June 2022)

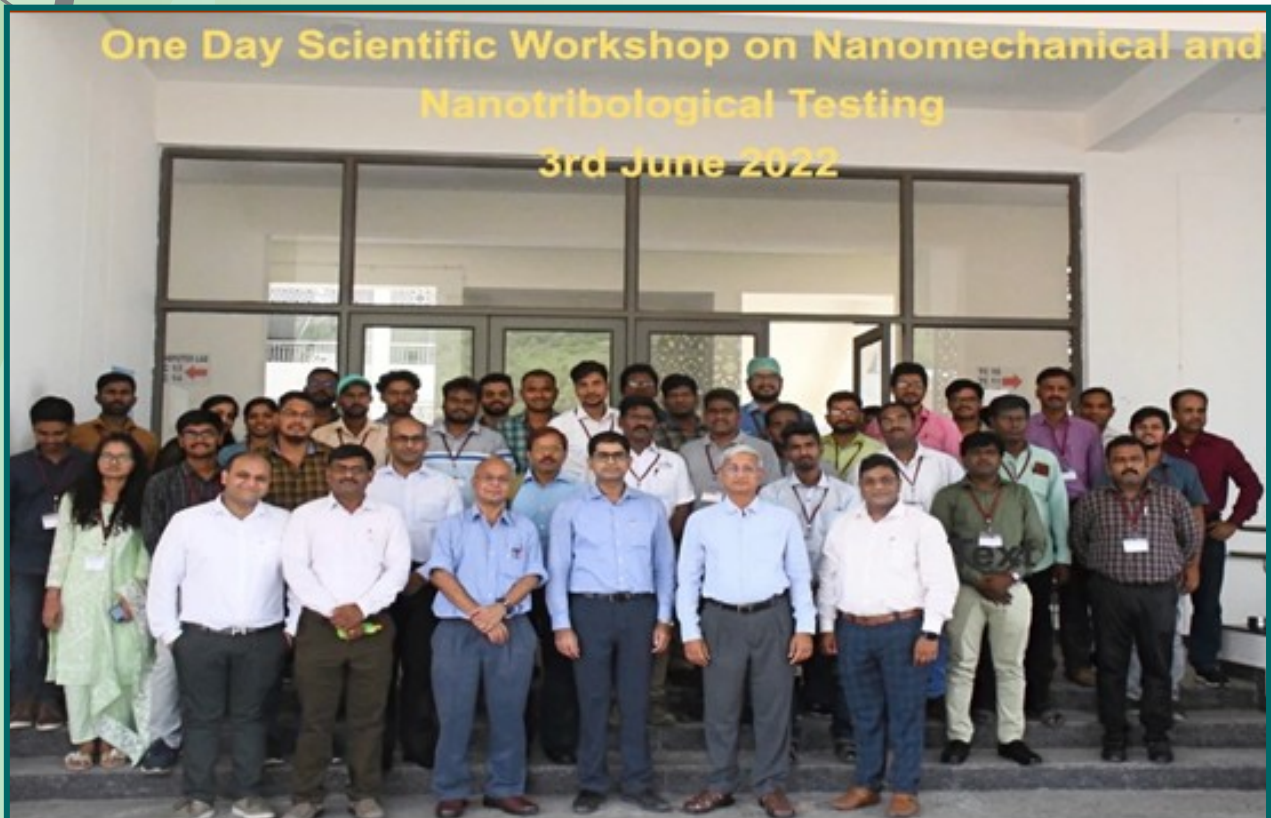
Organized by: Indian Institute of Technology, Tirupati and Industron Nanotechnology Pvt Ltd

The one-day offline Scientific Workshop on Nanomechanical and Nanotribological Testing was organized by the Indian Institute of Technology Tirupati in collaboration with Industron Nanotech- nology Pvt Ltd.

Following are some highlights of the Workshop:

1) The inaugural session was presided over by Prof. K. N. Satyanarayana, Director IIT Tirupati. The welcome address was given by Dr. Madan Mohan Avulapati, HOD, Department of Mechanical Engineering, IIT Tirupati. All speakers such as Prof. Satish V. Kailas from IISc Bengaluru, Prof. Pijush Ghosh from IIT Madras, Prof. Praveen Kumar from IISc Bengaluru, Prof. Kiran Mangalampalli from SRM Institute of Technology, and Mr. Pratyank Rastogi from Industron India, were welcomed by the Director.

2) On this day Indian Institute of Technology, Tirupati inaugurated a “Tribology Lab” in presence of all the dignitaries



Group Photo of all the Guests and Participants during the Workshop



(From left): Dr. Ajay Kumar (IIT Tirupati), Prof. Pijush Ghosh (IIT Madras), Prof. Satish V. Kailas (IISc Bengaluru), Prof. K. N. Satyanarayana (Director, IIT Tirupati), Prof. Praveen Kumar (IISc Bengaluru), Prof. Kiran Mangalampalli (SRM Institute of Technology), Mr. Pratyank Rastogi (Industron India) and Dr. Subbareddy D (IIT Tirupati)

NANOMECHANICAL & NANOTRIBOLOGICAL TESTING

ONE DAY OFFLINE SCIENTIFIC WORKSHOP



Organizers:
Dr. Ajay Kumar
Indian Institute of Technology,
Tirupati, India
Pratyank Rastogi
Industron Nanotechnology Pvt Ltd

Welcome Address
Dr. Madan Mohan Avulapati
Head of the Department, Mechanical Engineering
IIT Tirupati

Opening Remark
Prof. K. Satyanarayana, Director, IIT Tirupati

Keynote Talk: Prof. Satish V. Kailas, IISc Bangalore
Title: Why indentation and tribology and how to get "good" and useful data

Keynote Talk: Prof. Pijush Ghosh, IITM
Title: Can we indent on water?

Keynote Talk: Prof. Praveen Kumar, IISc Bangalore
Title: Estimation of Orientation, Composition and Temperature Effects on Modulus and Hardness of Ni-x-Al Alloys using Nanoindentation

Keynote Talk: Prof. Kiran Mangalampalli, SRM Institute of Science & Technology
Title: Understanding Nanoscale Plasticity by Quantitative in-situ Conductive Nanoindentation

Industry Talk: Mr. Pratyank Rastogi, Industron India
Title: High-Speed Nanoindentation & Property Mapping

Friday
3rd June 2022

10:30 AM TO 1:30 PM

TCI Classroom Complex, IIT Tirupati (Transit Campus)

TO REGISTER CLICK BELOW

[REGISTER NOW](#)







Workshop Detail with Keynote Speakers and their Topics

Tribology Laboratory at National Institute of Technology, Srinagar, J&K

The Tribology Laboratory of NIT Srinagar is equipped with the state-of-art testing machinery in the field of materials development, coatings, testing of MMCs/CMCs, and coatings at Micro/Nanoscale level over the temperate range of room temperature to 1000°C and room temperature to cryogenic temperature.

Since 2012 this laboratory has produced 25 Ph.D level and 100 Masters level theses. The laboratory has signed MOUs with International Universities to carry out collaborative research in the field of tribology. Already one International collaborative research project has been completed and two other international collaborative research projects are currently going on. Research work conducted in this laboratory is published in highly reputed international journals in the field of materials and tribology.

Some of the main facilities of this laboratory are Nano Coating, Spark Plasma Sintering Machine, Nano-mechanical System, Nano Tribometer, High-temperature Universal Tribometer, Raman Spectroscopy, WDXRF, Field Emission Scanning Electron Microscope and 3D Profilometer.

The link below gives more details about the following aspects of the Tribology Laboratory:

- *Faculties*
- *Research Scholars*
- *Research projects*
- *Research Papers*
- *Conferences*

https://nitsri.ac.in/Department/DisplayDeptPage.aspx_page=maeq&ItemID=kaecm&nDeptID=e

Tribology Laboratory at Department of Mechanical Engineering

All India Shri Shivaji Memorial Society's College of Engineering, Pune

The Department of Mechanical Engineering at AISSMS College of Engineering was established in 1992. The department offers two Undergraduate programs, namely, Mechanical and Mechanical (Sandwich) Engineering, PG program in Design Engineering and Ph.D. degrees respectively. In order to cater to the needs of faculty members, PG students, research scholars, practising engineers from industry and lubricant manufactures, a “Tribology Lab” is established at Department of Mechanical Engineering at AISSMS College of Engineering, Pune. A Project Coordinator, Dr B D Bachchhav, received a grant of Rs 17,18,500/- from AICTE for a project entitled “Modernization of Tribology Laboratory for Performance Evaluation of Nano/Bio Lubricants” under AICTE- MODROB-ASP Scheme.



“Tribology Laboratory” was inaugurated at the auspicious hands of Honorable Secretary Shri Malojiraje Chhatrapati, Jt. Secretary Shri Sureshji Shinde, Treasurer Shri Ajay Patil, all Management Members and Principal Dr D S Bormane on 26th January 2023.



Four ball tester, KRL shear stability tester, Image acquisition system, Digital Microscope



Bearing test rig developed as a part of an overseas consulting project from Demag Cranes, Germany.

Current projects undertaken in the Tribology Lab:

- Development of Herbal Grease.
- Development of novel Nano-Bio lubricants
- Performance life of rolling contact bearings
- Tribo-mechanical characterization of novel materials, composites
- Development of Environmental Friendly Corrosion fouling inhibitors for marine applications

Resources available for Testing and Characterization:

- Four Ball Tester with pneumatic loading arrangement
- KRL Shear stability tester
- Hardness Tester
- Surface roughness tester
- Test set-up for Performance life of rolling contact bearings
- Rheological test equipment

Tribology experts at AISSMS CoE:

- 1) Dr B D Bachchhav, Professor, Dept. of Mechanical Engg.
- 2) Dr D Y Dhande, Professor, Dept. of Mechanical Engg.
- 2) Dr P S Gajjal, Associate Professor, Dept. of Mechanical Engg.

Contact:

Dr. B D Bachchhav,
Professor

Department of Mechanical Engineering,
All India Shri Shivaji Memorial Society's College of Engineering, Pune 411001.

E-mail: bdbachchhav@aissmscoe.com bhanudas2k@gmail.com, Mobile No: 09850172628.

Young Tribology Scholars

We are happy to present the profiles of 22 young Tribology scholars who have completed their PhDs recently. TSI congratulates the budding Tribologists and wishes them the very best in their professional pursuits.



Name of Research Scholar: DR. Pragneshkumar Laxmiram Thakkar

Title of Ph.D. Thesis: Analysis of some problems related to Tribology

Name of the Supervisor: Dr. H. C. Patel, L. D. College of Engineering, Ahmedabad

Year of Completion: 2019



Name of Research Scholar: DR. Jeewan T.P.

Title of Ph.D. Thesis: Comparative Studies on the Machining of AA6061 and AISI 304L using Non-Edible Vegetable Oil as Straight Cutting Fluid.

Name of the Supervisor: Dr. S. R. Jayaram, Department of Mechanical Engineering, Malnad College of Engineering, Hassan

Year of Completion: 2018



Name of Research Scholar: Dr. Abhinava Chatterjee

Title of Ph.D. Thesis: Nanotribology and Nanomechanics of Articular Cartilage Interfaces using Molecular Dynamics Simulations

Name of the Supervisor: Prof. Devendra K. Dubey and Prof. S. K. Sinha, Department of Mechanical Engineering, IIT Delhi

Year of Completion: 2022



Name of Research Scholar: Dr. Puja Prakash More

Title of Ph.D. Thesis: Wear Particle Analysis through Ferrography and Fractal Techniques in Condition Monitoring.

Name of the Supervisor: Dr. M. D. Jaybhaye, Deptt. of Production Engineering and Industrial Management, College of Engineering Pune, Maharashtra

Year of Completion: 2022



Name of Research Scholar: Dr. Rakesh Kumar Yadav

Title of Ph.D. Thesis: Studies on Mechanical and Wear Behaviour of Al-SiC Particulate Composite

Name of the Supervisor: Prof. (Dr.) Zahir Hasan, NSAK College of Engineering & Technology, Malakpet, Hyderabad-24.

Year of Completion: 2021



Name of Research Scholar: Dr. Subhrajit Pradhan

Title of Ph.D. Thesis: Mechanical and Tribological Behaviour of Natural Fiber (Eulaliopsis Binata) Reinforced Polymer Composite

Name of the Supervisor: Prof. Samir Kumar Acharya, Tribology Laboratory, Department of Mechanical Engineering, National Institute of Technology Rourkela, Odisha

Year of Completion: 2022



Name of Research Scholar: Dr. Daulat Kumar Sharma

Title of Ph.D. Thesis: Surface Composite Manufacturing Through Friction Stir Processing

Name of the Supervisor: Dr. G. H. Upadhyay, Principal, Mahatma Gandhi Institute of Technical Education and Research Centre, Navsari, Gujarat, Gujarat Technological University, Ahmedabad, Gujarat

Year of Completion: 2020



Name of Research Scholar: Dr. Pranav Dev Srivyas

Title of Ph.D. Thesis: Tribological Characterization of a Eutectic Aluminum Silicon Alloy-Based Hybrid Self-Lubricating Composite

Name of the Supervisor: Dr. M.S. Charoo, NIT Srinagar Jammu & Kashmir

Year of Completion: 2021



Name of Research Scholar: Dr. SAINDANE UDAYKUMAR VIKRAM

Title of Ph.D. Thesis: Investigation and Characterization of Polymer Based Composites for Brake Pad Applications

Name of the Supervisor/co-supervisor: Dr. Sandeep Soni & Dr. J. V. Menghani, Sardar Vallabhbhai National Institute of Technology (SVNIT), Ichchhanath, Surat, Gujarat

Year of Completion: 2023



Name of Research Scholar: Dr. Rameshwar Chaudhary

Title of Ph.D. Thesis: "Tribo-performance Studies of Textured Concentrated Contacts at Heavy Loads using Nano-lubricants"

Name of the Supervisor/co-supervisor: Prof. R. K. Pandey, (Department of Mechanical Engineering, Indian Institute of Technology Delhi & Dr S.K. Mazumdar (Formerly Executive Director, Research & Development Centre, Indian Oil Corporations Limited, Faridabad

Year of Completion: 2023



Name of Research Scholar: Dr. R. Rajeshshyam

Title of Ph.D. Thesis: Surface modification and tribological studies of tungsten disulfide solid lubricant layer deposition on aluminum 6061-T6 surface

Name of the Supervisor/co-supervisor: Prof. R. Venkatraman, Associate Dean - Model Production Center, School of Mechanical Engineering, SASTRA Deemed to be University, Thanjavur, Tamilnadu, INDIA

Year of Completion: 2022



Name of Research Scholar: Dr. Masrat Bashir

Title of Ph.D. Thesis: Thermal Analysis of Disc Brakes.

Name of the Supervisor/co-supervisor: Prof. Adnan Qayoum and Dr. Sheikh Shahid Saleem, Mechanical Engineering Department, National Institute of Technology Srinagar, Jammu and Kashmir, India

Year of Completion: 2022



Name of Research Scholar: Dr. S. Vignesh

Title of Ph.D. Thesis: Experimental Investigation and Optimization studies on effects of Nano cutting fluids in End milling process using MQL technique.

Name of the Supervisor: Professor. Dr. U. Mohammed Iqbal, Head- Manufacturing division, Department of Mechanical Engineering, SRM Institute of Science and Technology, Chennai, Tamilnadu

Year of Completion: 2020

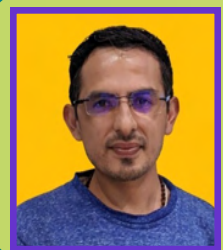


Name of Research Scholar: Dr. Sreeraj K

Title of Ph.D. Thesis: : Tribological investigation of white etching area (WEA) formation under severe sliding condition in bearing steel.

Name of the Supervisor: Dr. P Ramkumar , IIT Madraas

Year of Completion: 2021



Name of Research Scholar: Dr. Bhaskaranand Bhatt

Title of Ph.D. Thesis: Replacement of Phenolic Resin by Novel Eco-Friendly Resins in Copper-Free Brake Pads.

Name of the Supervisor: Prof. Jayashree Bijwe, IIT Delhi

Year of Completion: 2022



Name of Research Scholar: Dr. Jeewan Chandra Atwal

Title of Ph.D. Thesis: "Performance studies of new micro-pocketed and bionic textured fixed and tilting pad thrust bearings using FEM approach.

Name of the Supervisor/co-supervisor: Prof. R. K. Pandey, (Department of Mechanical Engineering , Indian Institute of Technology Delhi

Year of Completion: 2023



Name of Research Scholar: Dr. Pranabesh Ganai

Title of Ph.D. Thesis: Studies on flexible journal bearings for improved tribological and stability behaviours

Name of the Supervisor/co-supervisor: Prof. R K Pandey, IIT Delhi, Prof. J K Dutt, IIT Delhi

Year of Completion: 2022



Name of Research Scholar: Dr. Anuj Bansal

Title of Ph.D. Thesis: Slurry Erosion Behaviour of Polytetrafluoroethylene (PTFE)-Modified Thermal Spray Coatings on Hydro-Machinery Steels.

Name of the Supervisor: Dr. Jagtar Singh, Professor, Mechanical Engineering Department, Sant Longowal Institute of Engg. and Technology, Longowal, Sangrur, Punjab

Year of Completion: 2021



Name of Research Scholar: Dr. Avneesh Kumar

Title of Ph.D. Thesis: Experimental Investigations on Cold-Sprayed Ti-based Coatings for Bio-Implant Applications .

Name of the Supervisor/ co-supervisor: Prof. Harpreet Singh and Dr. Ravi Kant, Department of Mechanical Engineering, IIT Ropar, Rupnagar, Punjab

Year of Completion: 2023

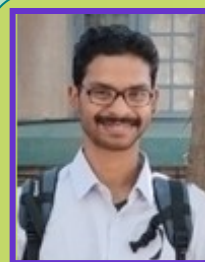


Name of Research Scholar: Dr. Navneet Kumar Singh

Title of Ph.D. Thesis: Investigations on Cavitation Erosion of High-Velocity Oxy-Fuel (HVOF)-Sprayed Nickel-Based Cermet Coatings on Monel K-500 Alloy.

Name of the Supervisor/ co-supervisor: Dr. Dhiraj K. Mahajan , and Prof. Harpreet Singh , Department of Mechanical Engineering, Indian Institute of Technology Ropar, Punjab

Year of Completion: 2022



Name of Research Scholar: Dr. Pranay Vinayak Likhar

Title of Ph.D. Thesis: Design and development of lateral force-controlled tribosystems.

Name of the Supervisor/ co-supervisor: Prof. Satish V. Kailas, Surface Interaction and Manufacturing Laboratory, Department of Mechanical Engineering, Indian Institute of Science Bangalore, CV Raman Road, Bengaluru

Year of Completion: 2022



Name of Research Scholar: Dr. Samuel Gemsprim M

Title of Ph.D. Thesis: Tribological evaluation of vegetable oil based biolubricant blends enhanced with Al₂O₃ nano particles

Name of the Supervisor/ co-supervisor: Dr. Ashoka Varthanan P, Professor and Head, Department of Mechanical Engineering, Sri Krishna College of Engineering and Technology, Coimbatore

Year of Completion: 2023

New Members of Tribology Society of India (February 2022 - January 2023)

Sr. No.	Member-ship #	Name	Affiliation
1	6030	Mr. Adesh Kumar Tomar	Indian Institute of Technology Roorkee, Roorkee, Uttarakhand
2	6031	Dr. Arijit Sinha	Kazi Nazrul University, Asansol, West Bengal
3	S-6032	Mr. Sourav Sahoo	Indian Institute of Technology Delhi, New Delhi
4	6033	Mr. V V Monikandan	Indian Institute of Technology Bhubaneswar, Odisha
5	S-6034	Mr. Syed Junaid	Indian Institute of Technology Delhi, New Delhi
6	S-6035	Mr. Dinesh Kumar PK	VIT University, Vellore, Tamil Nadu
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Upcoming Event: "TribolIndia- 2023" (5-7 October, 2023) by the Department of Mechanical Engineering, National Institute of Technology Srinagar (NIT Srinagar), J&K under the aegis of Tribology Society of India



TRIBOINDIA-2023

First Announcement TribolIndia-2023

The Organizing Committee cordially invites you to join the international conference on Tribology "TribolIndia-2023" at National Institute of Technology, Srinagar, Kashmir, India.

The theme of the TribolIndia-2023 is "Sustainable Development Through Tribology". This event is aimed at attracting novel and innovative research and development of tribologically superior materials across various industries including Energy, Space, Transportation, and Manufacturing.

Conference Topics

1. Tribology for Sustainability
2. Nano-Tribology and Nano-Mechanical Testing
3. Materials for Tribology
4. Nano-Lubrication
5. Extreme Environment Tribology
6. Instrumentation in Tribology
7. MIS in Industry 4.0
8. Space Tribology
9. Bio-Tribology
10. Tribology of Electric Vehicles
11. Other topics related to Tribology

Conference Chairman: Prof. Mohd Farooq Wani
Contact Details: triboindia2023@nitsri.ac.in
Venue: Mechanical Engineering Department,
NIT Srinagar, Kashmir, India, 190006
Date: 5th-7th October 2023




The TribolIndia-2023 Conference, which brings together specialists, research scientists, and industrial technologists, is expected to spark new ideas and concepts, further advancing the field of tribology.

TSI Webpage link: <https://www.tribologyindia.org/pdf/TribolIndia-2023.pdf>

NIT Srinagar webpage link: https://nitsri.ac.in/uploaded_files/triboindia_09022023.pdf

✦ TSI invites all Members to whole-heartedly participate in this event and make it a grand success ✦

15th Summer School in Tribology at IISc Bangalore,
(13–17 June, 2023)

15th SST

15th Summer School in
Tribology



13-17 June, 2023
at
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Indian Institute of Science Bangalore
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All Members are invited to send their publication materials, suggestions and feedback to Mr. A. K. Mehta, ED (TSI) at the email ID: office.tsi@tribologyindia.org

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