



TSI NEWSLETTER

January 2021 — January 2022



Message from President — TSI

“First of all, I would like to thank the TSI members who have voted for me as the President of the Tribology Society of India. Thanks to the past President Dr. S. S. V. Ramakumar, and other EC members for their contribution to the growth of TSI. This time the voting had to be done online due to the difficult times we are living through. Thanks to Dr. Kavita Rai who, as the returning officer, ensured smooth conduct of the elections. The percentage of votes that I, and all other members of the EC, got were 80% or more of the votes polled. While this might sound heartening it was also sad to note that less than 10% of the eligible people voted. Clearly something is missing. I am also reminded of the statement that “bad people get elected because the honest people do not vote.” Hope this is not the case for the just concluded elections. The reason could be that the connect between the members and TSI are not strong enough. We do need to introspect on this. During my tenure as President of the Society, I would like to seek views from all on how to go about strengthening this bond and make TSI a more vibrant organization. Just after the elections there was an email from Dr. R. A. Rao, former President of TSI (in 1970), and one of our senior-most members. He raised two issues for TSI to consider: (1) Working towards introducing Tribology as a course in the undergraduate and graduate level and, (2) Encouraging more women members to be a part of the TSI and EC. I request all members to help in addressing these issues. **Please send me your views and suggestions on how to address these two issues.** Let us move forward and build a stronger TSI based on the good work done by the past office bearers.”



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. At the outset, I extend my gratitude to all the members of TSI for electing me to the post of Secretary, TSI. I will do my bit to take up this challenging responsibility bestowed upon me with the guidance of my predecessors and support of all the EC members. I also take this opportunity to congratulate the newly elected office bearers and EC members of the Society elected through the online mode. As you may be aware, the Society has made significant progress during the tenure of the previous Executive Committee and it is a privilege as well as a challenge for the current Executive Committee to continue the excellent work and take TSI to greater heights. In this endeavor our initiative towards Tribology education and training through the Summer Schools have been receiving a great response from industry and academia alike. 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. TRIBOINDIA 2021, the sixth in the series of National Tribology Conference (NTC), was organized by Department of Mechanical Engineering, Saintgits College of Engineering (Autonomous), Kottayam, Kerala, under the aegis of the Tribology Society of India, from 2-4 December 2021. This conference in digital mode was a grand success. The new EC under the guidance of President, TSI and support of EC members is keen towards organizing such activities related to 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 vibrant forum for interactions and working together.



With best Regards,

Rajendra Mahapatra, Secretary - TSI

New TSI Executive Committee for term 2022 — 2023

Given below is the list of new Executive Committee Members of the Society, as per on-line election held in December 2021 and results declared by the Returning Officer, Dr (Mrs) Kavita Rai, in the TSI General Body Meeting held on 24 January 2022.



President, TSI
Prof Satish V Kailas
Indian Institute of
Science, Bangalore



Vice President, TSI
Dr Barun Chakrabarti
L&T Energy — Hydrocarbon, Mumbai



Vice President, TSI
Mr Ajay Kumar Harinarain
Indian Oil R&D Centre,
Faridabad



Secretary, TSI
Mr Rajendra Mahapatra
Indian Oil R&D Centre,
Faridabad



Jt. Secretary, TSI
Dr T Singh
Bharat Petroleum
Corporation Ltd.,
R&D Centre, Mumbai



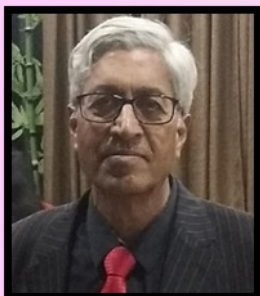
Jt. Secretary, TSI
Dr Pankaj Bhatnagar
Indian Oil R&D Centre,
Faridabad



Treasurer, TSI
Mr Rahul B. Meshram
Indian Oil R&D Centre,
Faridabad



Dr S S V Ramakumar
Past President & Ex Officio Member, TSI
Indian Oil R&D Centre, Faridabad



Executive Committee Member, TSI
Formerly GM, Coal India Limited,
Bilaspur



Executive Committee Member, TSI
Prof. Satish C. Sharma
Indian Institute of Technology Roorkee,
Haridwar



Executive Committee Member, TSI
Mr Anjeeve George
Danfoss Technologies Pvt. Ltd.,
Pune



Executive Committee Member, TSI
Dr Ram Turaga
Indian Institute of Science,
Bangalore



Executive Committee Member, TSI
Dr Mayank Tiwari
Indian Institute of Technology
Patna



Executive Committee Member, TSI
Mr Rajesh Nambiar
Indian Oil Corporation Limited,
Mumbai



Executive Committee Member, TSI
Mr Sreejit Banerjee
Balmer Lawrie & Co. Ltd.,
Kolkata



Executive Committee Member, TSI
Mr Ashish Khanna
Hindustan Petroleum Corporation
Limited, Mumbai



Executive Committee Member, TSI
Dr A P Harsha
Indian Institute of Technology (BHU)
Varanasi



Executive Committee Member, TSI
Prof Harpreet Singh
Indian Institute of Technology
Ropar, Rupnagar



Executive Committee Member, TSI
Mr P Pathak
Research & Development Centre for
Iron & Steel (RDCIS) SAIL, Ranchi

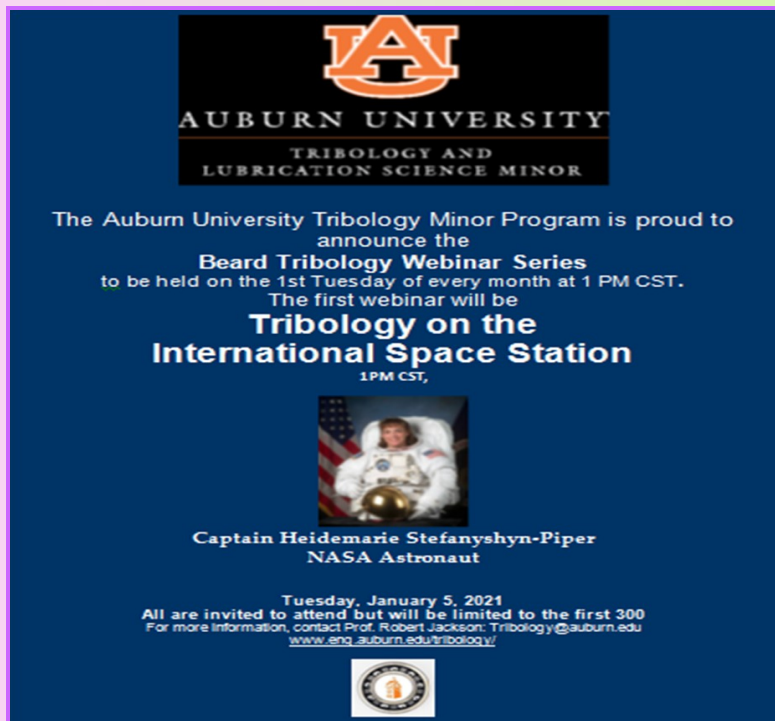


Executive Committee Member, TSI
Prof Vikas M Phalle
Veermata Jijabai Technological Institute, Mumbai

Tribo-Connect / TSI Technical Education Webinars

We have so far conducted the following Webinars over the last one year:

Tribology on the International Space Station: by Captain Heidemarie Stefanyshyn,
Piper NASA Astronaut, 5th January 2021

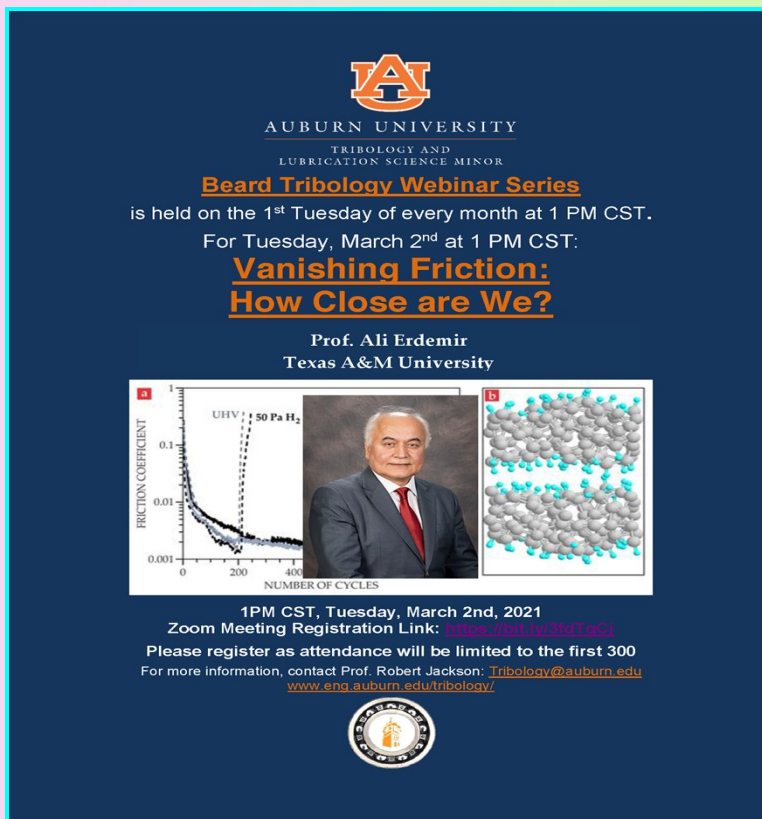


Friction and Wear of Ceramics - Principles and Case Studies: This 2-part webinar by
Prof. Bikramjit Basu was organised on 16th and 17th February 2021

| | | |
|--|---|--|
| TSI Technical Education Webinar Series | - Two Day Lecture Event - 16th and 17th February 2021 14:30 India Time Both Days | |
|  Tribology Society of India (Affiliated to the International Tribology Council, UK) | - Topic - FRICITION AND WEAR OF CERAMICS: PRINCIPLES AND CASE STUDIES | |
|  | - Esteemed Speaker - | |
| | Prof. Bikramjit Basu Materials Research Center Indian Institute of Science Bangalore <small>Images: Ball bearing, Seal, Human spine replacement and Cutting tool inserts made from ceramics (source: 'The Magic of Ceramics' by D.W. Richerson)</small> | |
|  | | |

Tribo-Connect / TSI Technical Education Webinars

Vanishing Friction: A webinar by Prof Ali Erdemir of Texas A&M University, USA
delivered on 2nd March 2021



AUBURN UNIVERSITY
TRIBOLOGY AND
LUBRICATION SCIENCE MINOR

Beard Tribology Webinar Series
is held on the 1st Tuesday of every month at 1 PM CST.
For Tuesday, March 2nd at 1 PM CST:
Vanishing Friction:
How Close are We?

Prof. Ali Erdemir
Texas A&M University

1PM CST, Tuesday, March 2nd, 2021
Zoom Meeting Registration Link: <https://bit.ly/3tdTaGj>
Please register as attendance will be limited to the first 300
For more information, contact Prof. Robert Jackson: Tribology@auburn.edu
www.eng.auburn.edu/tribology/

Tribological Testing - What's the Problem ? : Webinar by Mr George Plint, Director,
Phoenix Tribology, UK on 13th April 2021



Tribology Society of India
(Affiliated to the International Tribology Council, UK)

**TSI Technical Education
Webinar Series**

13TH APRIL, 2021 AT 15:00 INDIA TIME

MR. GEORGE PLINT
DIRECTOR
PHOENIX TRIBOLOGY, UK

- Topic -
**TRIBOLOGICAL TESTING –
WHAT'S THE PROBLEM?**

Surface Degradation of Boiler Tubes : by Prof. Harpreet Singh, Mechanical Engineering Deptt.,
IIT Ropar on 27th October, 2021

**Tribology Society of India**
(Affiliated to the International Tribology Council, UK)

**TSI TECHNICAL EDUCATION
WEBINAR SERIES**

27TH OCTOBER, 2021 AT 14:00 INDIA TIME



FIG 1: CAVITATION BLADE DAMAGE ON A HYDRO-TURBINE RUNNER



FIG 2: CAVITATION BLADE DAMAGE AT FRANCIS TURBINE DISCHARGE



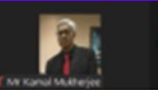
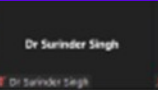




FIG 3: HIGH TEMPERATURE CORROSION OF BOILER TUBE

DR. HARPREET SINGH
PROFESSOR
MECHANICAL ENGINEERING, IIT ROPAR

- Topic -
SURFACE DEGRADATION RESISTANT COATINGS FOR BOILERS AND HYDRO TURBINES


Image Source
Fig 1: S.W. Greg, International Journal of Prognostics and Health Management, Fig 2: C.E. Brennan, Hydrodynamics of Pump, Fig 3: PSPCL, Ropar





Dr. Surinder Singh

Degradation of Boiler Tubes



- High temperature corrosion
- High temperature erosion
- Synergy of erosion and corrosion leading to erosion-corrosion

Organisation of 13th TSI Summer School in Tribology

TSI Summer School in Tribology (SST), 13th edition of this flagship program of TSI, was organised in Virtual Mode during 31 August – 4 September, 2021. A total of 66 participants from Academia and 42 delegates from industry, across multiple locations, registered for the 13th SST.

The program covered 20 technical lectures and 7 guest lecturers from eminent faculty from industry and reputed academic institutions.



The programme was inaugurated by President (TSI), Dr SSV Ramakumar

Details of the technical program of 13th SST can be seen at the following link of TSI website:

https://www.tribologyindia.org/education_course_archives.htm

On the 5th day, an on-line test of 1-hour duration, with multiple-choice questions, was organized. About 108 participants took the test through on-line mode. This was a unique experience for TSI as well as for the participants. On the last day of the event, a Concluding Session was organized, chaired by Dr Barun Chakrabarti, L&T Energy – Hydrocarbon and in presence of Mr Ajay Kumar Harinarain, IndianOil R&D Centre, Dr T Singh, BPCL R&D Centre, Mr Rajendra Mahapatra, IndianOil R&D and Mr A K Mehta, ED (TSI). As part of feedback interaction, the participants expressed their satisfaction and reiterated the usefulness of this virtual event, since a large number of participants from academia and industry were able to join.

Young Tribology Scholars

We are happy to present the profiles of 26 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. Vimal Edachery

Title of Ph.D. Thesis: Influence of Surface Topography and Roughness on Lubrication, Friction and Scuffing in High Hardness Steels

Name of the Supervisor: Prof. Satish V Kailas, Surface Interaction and Manufacturing Laboratory, Department of Mechanical Engineering, Indian Institute of Science, Bangalore

Year of Completion: 2021



Name of Research Scholar: Dr. Amit Jhalani

Title of Ph.D. Thesis: Experimental studies on a stationary C.I. engine fuelled with gomutra emulsified diesel

Name of the Supervisor/Co-sup: Prof. Dilip Sharma - Malaviya National Institute of Technology Jaipur, Lt. Prof. S.L. Soni //

Year of Completion: 2020



Name of Research Scholar: Dr. Sooraj Singh Rawat

Title of Ph.D. Thesis: Tribological study on mineral and vegetable oils-based greases with nano-additives.

Name of the Supervisor/ Co-sup: Prof. A. P. Harsha, Department of Mechanical Engineering, Indian Institute of Technology (Banaras Hindu University) Varanasi, Dr. O. P. Khatri CSIR-Indian Institute of Petroleum, Dehradun. //

Year of Completion: 2021



Name of Research Scholar: Tamonash Jana

Title of Ph.D. Thesis: Static and dynamic contact analysis of functionally graded rough surface

Name of the Supervisor: Dr. Anirban Mitra, Jadavpur University, Prof. Prasanta Sahoo, Jadavpur University //

Year of Completion: 2021



Name of Research Scholar: Sudip Banerjee

Title of Ph.D. Thesis: Tribological Behavior of Mg-WC Metal Matrix Nano-composites

Name of the Supervisor/ Co-sup: Prof. Prasanta Sahoo, Jadavpur University, Prof. Goutam Sutradhar, NIT Manipur //

Year of Completion: 2021



Name of Research Scholar: Smrutiranjana Pradhan

Title of Ph.D. Thesis: Tribological behaviour of Al-SiC metal matrix composite in corrosive environment.

Name of the Supervisor/ Co-sup: Prof. Prasanta Sahoo, Jadavpur University, Prof. Tapan Kumar Barman, Jadavpur University //

Year of Completion: 2018



Name of Research Scholar: Suswagata Poria

Title of Ph.D. Thesis: Study of Tribological Behavior of Al-TiB₂ Metal Matrix Composites

Name of the Supervisor/ Co-sup: Prof. Prasanta Sahoo, Jadavpur University Prof. Goutam Sutradhar, NIT Manipur //

Year of Completion: 2018



Name of Research Scholar: Arkadeb Mukhopadhyay

Title of Ph.D. Thesis: High Temperature Tribology of Borohydride Reduced Electroless Nickel Coatings

Name of the Supervisor: Prof. Tapan Kumar Barman, Jadavpur University, Prof. Prasanta Sahoo, Jadavpur University //

Year of Completion: 2018



Name of Research Scholar: Dr. Santanu Duari

Title of Ph.D. Thesis: Friction and Wear Behavior of Electroless Nickel Coatings under Lubrication

Name of the Supervisor/ Co-sup: Dr. Tapan Kumar Barman and Dr. Prasanta Sahoo, Professor, Jadavpur University, Kolkata //

Year of Completion: 2018



Name of Research Scholar: Sanjib Kundu

Title of Ph.D. Thesis: Tribological Characterization of Electroless Ni-P Coatings under High Temperature

Name of the Supervisor: Prof. Prasanta Sahoo, Jadavpur University, Dr. Suman Kalyan Das, Jadavpur University //

Year of Completion: 2019



Name of Research Scholar: Dr. Prashant Mittal

Title of Ph.D. Thesis: In-Situ Microscopic Tribology of Near Eutectic Al-Si Alloy under Boundary Lubricated Conditions

Name of the Supervisor/ Co-sup: Dr. Nitya Nand Gosvami, Assistant Professor, Department of Material Science and Engineering, IIT Delhi

Year of Completion: 2021



Name of Research Scholar: Dr. Hemendra Patle

Title of Ph.D. Thesis: A Study on Light Metal (Mg/Al) Based Surface Composites Developed by Friction Stir Processing.

Name of the Supervisor/ Co-sup: Dr. Ravikumar Dumpala, Assistant Professor, Department of Mechanical Engineering, VNIT Nagpur

Year of Completion: 2021



Name of Research Scholar: Dr. Kaushik Hebbar Kannur

Title of Ph.D. Thesis: Optimization of Nitrogen-Alloyed MoS_x Coatings for Low Friction Applications

Name of the Supervisor/ Co-Sup: Prof. Albano Cavaleiro, Professor, Dept. of Mechanical Engg, University of Coimbra, Portugal, Dr. Christophe Heau, Senior Researcher, IREIS, HEF Groupe, France //

Year of Completion: 2021



Name of Research Scholar: Dr. Ashutosh Kumar

Title of Ph.D. Thesis: Effect of Non-Newtonian Lubricants on the Performance of Two-Axial Groove and Multi-Lobe Pressure Dam Bearing

Name of the Supervisor: Prof. S K Kakoty, IIT Guwahati // **Year of Completion:** 2020



Name of Research Scholar: Dr. Bipin Kumar Singh

Title of Ph.D. Thesis: Development and performance evaluation of self-lubricating zirconia toughened alumina ceramic inserts for machining of steel.

Name of the Supervisor: Dr. Nilrudra Mandal, Pr. Scientist, Materials Processing and Micro-systems Laboratory, CSIR-CMERI, M. G. Avenue, Durgapur; Dr. S. S. Roy, Professor, Dept. of Mechanical Engg, NIT Durgapur, M. G. Avenue, Durgapur // **Year of Completion:** 2020



Name of Research Scholar: Vinay Saini

Title of Ph.D. Thesis: Nano-particles of solid lubricants for tribo-performance enhancement of oils

Name of the Supervisor: Prof. Jayashree Bijwe, IIT Delhi; Dr Sarita Seth & Dr SSV Ramakumar, IndianOil R&D Centre, Faridabad // **Year of Completion:** 2021



Name of Research Scholar: Dr. Rajeev Nayan Gupta

Title of Ph.D. Thesis: Tribological Studies of Bio-lubricants and Their Admixtures with Nano-Additives

Name of the Supervisor: Prof. A. P. Harsha, IIT BHU Varanasi
Year of Completion: 2018



Name of Research Scholar: Kamal Kumar Basumatary

Title of Ph.D. Thesis: Gas Foil Bearing Integrated with Active Magnetic Bearing: Numerical Modelling and Analysis

Name of the Supervisor: Prof. S K. Kakoty (Deputy Director, IIT Guwahati), Prof. Karuna Kalita (IIT Guwahati) // **Year of Completion:** 2020



Name of Research Scholar: Raj Kumar Singh

Title of Ph.D. Thesis: Mechanical Properties and High-Stress Abrasive Wear Behaviour of Al-Si Alloys and Composite

Name of the Supervisor: Dr. Amit Telang, Assistant Professor, MANIT, Bhopal
Co-Supervisor: Dr. S. Das, Former Adjunct Faculty at MANIT, Bhopal & IIT Kanpur, and Former Director, Advanced Materials & Processes Research Institute (AMPRI), Bhopal
Year of Completion: 2018



Name of Research Scholar: Dr. Avinash Vitthal Borgaonkar

Title of Ph.D. Thesis: : Insight Development on Tribological Characteristics of Molybdenum Disulphide-Titanium Dioxide as Soft Composite Coating Material for Machining Applications

Name of the Supervisor: Dr. Syed Ismail, Assistant Professor, Mechanical Engineering Dept., National Institute of Technology Warangal, Telangana, India
Year of Completion: 2021



Name of Research Scholar: Niranjana Singh

Title of Ph.D. Thesis: Influence of texture shapes on the performance of hydrodynamic bearing system under laminar flow regime

Name of the Supervisor: Dr. R. K. Awasthi, Sardar Beant Singh State University, Gurdaspur, Punjab // **Year of Completion:** 2021



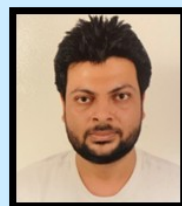
Name of Research Scholar: Niharika Gupta

Title of Ph.D. Thesis: Tribological and Vibrational Studies of Textured Spur Gears

Name of the Supervisor: Prof. Naresh Tandon (Emeritus Professor, Centre for Automotive Research and Tribology (Formerly ITMMEC IIT Delhi), New Delhi

Co-Supervisor: Prof. R.K. Pandey, Professor, Department of Mechanical Engg, IIT Delhi

Year of Completion: 2021



Name of Research Scholar: Deepak Kumar

Title of Ph.D. Thesis: Micro and Nano Scale Tribology of Mg-9Al-1Zn Magnesium Alloy under Dry and Lubricated Conditions

Name of the Supervisor: Prof. Nitya Nand Gosvami (IIT Delhi)

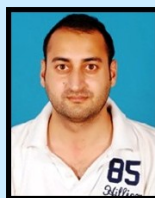
Co-supervisor: Prof. Jayant Jain (IIT Delhi) // **Year of Completion:** 2021



Name of Research Scholar: Dr. Mohd. Imran Ansari

Title of Ph.D. Thesis: Experimental Investigation on Surface Properties of Electroless Ni-P/ ZnO Composite Coatings on AZ91 Magnesium Alloy

Name of the Supervisor: Dr. D. G. Thakur; Professor & Head of the Department of Mechanical Engineering; Director - School of Robotics and Centre for Training & Placement, Defence Institute of Advanced Technology – DRDO (DU), Girinagar, Pune / **Year of Completion:** 2018



Name of Research Scholar: Omar Hussain

Title of Ph.D. Thesis: Evaluation and Enhancement of the Tribological Performance of UHMWPE for Biomedical Applications

Name of the Supervisor: Professor Dr Sheikh Shahid Saleem, Associate Professor, Department of Mechanical Engineering, NIT Srinagar // **Year of Completion:** 2022



Name of Research Scholar: Dr. Jibin T Philip

Title of Ph.D. Thesis: Numerical Modelling, Simulation and Experimental Investigations to Improve the Surface Tribological Properties of Ti6Al4V through Developing Electrical Discharge Alloying

Name of the Supervisor: Dr. Basil Kuriachen NIT Calicut, Kattangal, Kerala

Year of Completion: 2021

Achievement of Senior Researcher in Tribology



Dr. Vikas Phalle is an Associate Professor in Mechanical Engineering Department and Former Head of Mechanical Engineering Department at V.J.T.I. Mumbai. He is also a QIP Coordinator and AICTE sponsored 'Margdarshan' Scheme coordinator. He has recently received the *AICTE Visvesvaraya Best Teacher Award 2021* and *Dewang Mehta National Education Award* as "Best Professor in Mechanical Engineering Studies". Hearty Congratulations!



Prof. Prasanta Sahoo, Department of Mechanical Engineering, Jadavpur University has been awarded the prestigious *INSA Teacher Award (2021)* for his excellence in teaching and research in Tribology, designing new courses, writing textbooks and inspiring young scholars to take up careers in Science and Technology. Hearty Congratulations!



New Members of Tribology Society of India (January 2021 - January 2022)

| Sr. # | LM # | Name | Affiliation |
|-------|--------|-------------------------------|---|
| 1 | 5989 | Ms. Shipra Aggarwal | Indira Gandhi Delhi Technical University for Women, Delhi |
| 2 | 5990 | Mr. Abhishek Sahu | National Institute of Technology Raipur, Chhattisgarh |
| 3 | 5991 | Dr. Jayashree Baral | Maulana Azad National Institute of Technology Bhopal, Madhya Pradesh |
| 4 | 5992 | Mr. P. Deiva Balan | Formerly of Hanon Automotive Systems India Pvt Ltd, Chennai, Tamil Nadu |
| 5 | 5993 | Dr. Pragya Tripathi | Indian Institute of Science Bangalore, Karnataka |
| 6 | 5994 | Prof. P Baskara Sethupathi | SRM Institute of Science and Technology, Chennai, Tamil Nadu |
| 7 | 5995 | Mr. Sudeep Prakash | Omega Renk Bearing Pvt. Ltd., Bhopal, Madhya Pradesh |
| 8 | 5996 | Mr. Anshuman Agrawal | Minimac Systems Pvt. Ltd., Pune, Maharashtra |
| 9 | 5997 | Mr. Dudekula Nazeer Basha | International Advanced Research Centre (ARCI), Hyderabad, Telangana |
| 10 | S-5998 | Mr. Mohd. Talib Sameer Khan N | Birla Institute of Technology and Science, Pilani - Goa Campus, Goa |
| 11 | S-5999 | Mr. Arun Kumar | Indian Institute of Technology Kanpur, Uttar Pradesh |
| 12 | S-6000 | Ms. Sarita Bharti | Indian Institute of Technology Guwahati, Assam |
| 13 | 6001 | Mr. Sudhakar Majhi | Indira Gandhi Institute Of Technology, Sarang, Odisha |
| 14 | S-6002 | Mr. Manoj Kumar Maurya | Indian Institute of Technology Kanpur, Uttar Pradesh |
| 15 | S-6003 | Mr. Hara Prakash Mishra | National Institute of Technology Rourkela, Odisha |
| 16 | S-6004 | Mr. Kuldeep Narwat | Pandit Deendayal Energy University, Gujarat |
| 17 | S-6005 | Mr. Yogesh Kumar Yadav | National Institute of Technology Hamirpur, Himachal Pradesh |
| 18 | 6006 | Mr. Divyansh Mittal | Punjab Engineering College, Chandigarh, Haryana |
| 19 | S-6007 | Mr. Susheel Kumar | Indian Institute of Technology Kanpur, Uttar Pradesh |
| 20 | S-6008 | Mr. Ajay Kumar | Indian Institute of Technology Kanpur, Uttar Pradesh |
| 21 | 6009 | Mr. Suvendu Mohanty | Indian Institute of Technology Agartala, Tripura |
| 22 | S-6010 | Ms. Qurat -Ul-Ain | National Institute of Technology Srinagar, Jammu & Kashmir |
| 23 | S-6011 | Mr. Avinash Mandarha | Veermata Jijabai Technological Institute, Mumbai, Maharashtra |
| 24 | 6012 | Ms. Jeyalakshmi P | Indian Institute of Technology Madras, Tamil Nadu |
| 25 | S-6013 | Mr. Harsh Kumar | Indian Institute of Technology Patna, Bihar |

| Sr. # | LM # | Name | Affiliation |
|-------|--------|-------------------------------|---|
| 26 | S-6014 | Mr. Ritesh Sharma | National Institute of Technology Hamirpur, Himachal Pradesh |
| 27 | S-6015 | Mr. Arko Biswas | Indian Institute of Technology Kanpur, Uttar Pradesh |
| 28 | 6016 | Prof. Bhavin N. Bhimani | Marwadi University, Rajkot, Gujarat |
| 29 | 6017 | Dr. Mallikarjunachari G | Madanapalle Institute of Technology and Science, Chittoor, Andhra Pradesh |
| 30 | 6018 | Dr. Pradeep Kumar Krishnan | National University of Science and Technology, Coimbatore, Tamil Nadu |
| 31 | S-6019 | Mr. Vimal Edachery | Indian Institute of Science Bangalore, Karnataka |
| 32 | 6020 | Mr. Naitik L. Mehta | Marwadi University, Rajkot, Gujarat |
| 33 | 6021 | Dr. Pradeep Kumar GS | CHRIST University, Kumbalgodu , Karnataka |
| 34 | 6022 | Mr. Ajay Pratap Singh Lodhi | Indian Institute of Technology Delhi, New Delhi |
| 35 | 6023 | Mr. Suhail Ansari | RCG Instruments, Pune, Maharashtra |
| 36 | 6024 | Mr. Rahul B. Meshram | Indian Oil Corporation Limited, R&D Centre, Faridabad, Haryana |
| 37 | 6025 | Dr. Pankaj Kumar Gupta | Malaviya National Institute of Technology Jaipur, Rajasthan |
| 38 | 6026 | Mr. D Vinod Kumar | Gulf Oil Lubricants India Limited, Chennai, Tamil Nadu |
| 39 | 6027 | Mr. Jencen Mathai Arivan-noor | Gulf Oil Lubricants India Limited, Chennai, Tamil Nadu |
| 40 | 6028 | Mr. Vinith Kumar S. | Gulf Oil Lubricants India Limited, Chennai, Tamil Nadu |
| 41 | 6029 | Dr. Bhore Skylab P. | MNNIT Allahabad, Prayagraj, Uttar Pradesh |

Converted Members from Student to Life Membership during January 2021 - January 2022

| Sr. # | LM # | Name | Affiliation |
|-------|------|--------------------------|---|
| 1 | 5158 | Dr. Sanjay Singh Rathore | Shri Vishwakarma Skill University, Gurugram, Haryana |
| 2 | 5388 | Dr. Vikash Gautam | Swami Keshvanand Institute of Technology, Jaipur, Rajasthan |
| 3 | 5795 | Dr. Niharika Gupta | Indian Institute of Technology Delhi, New Delhi |
| 4 | 5890 | Dr. Ankitendran Mishra | Indian Institute of Technology (Banaras Hindu University) Varanasi, Uttar Pradesh |
| 5 | 5953 | Dr. Vinay Saini | Indian Institute of Technology Delhi, New Delhi |

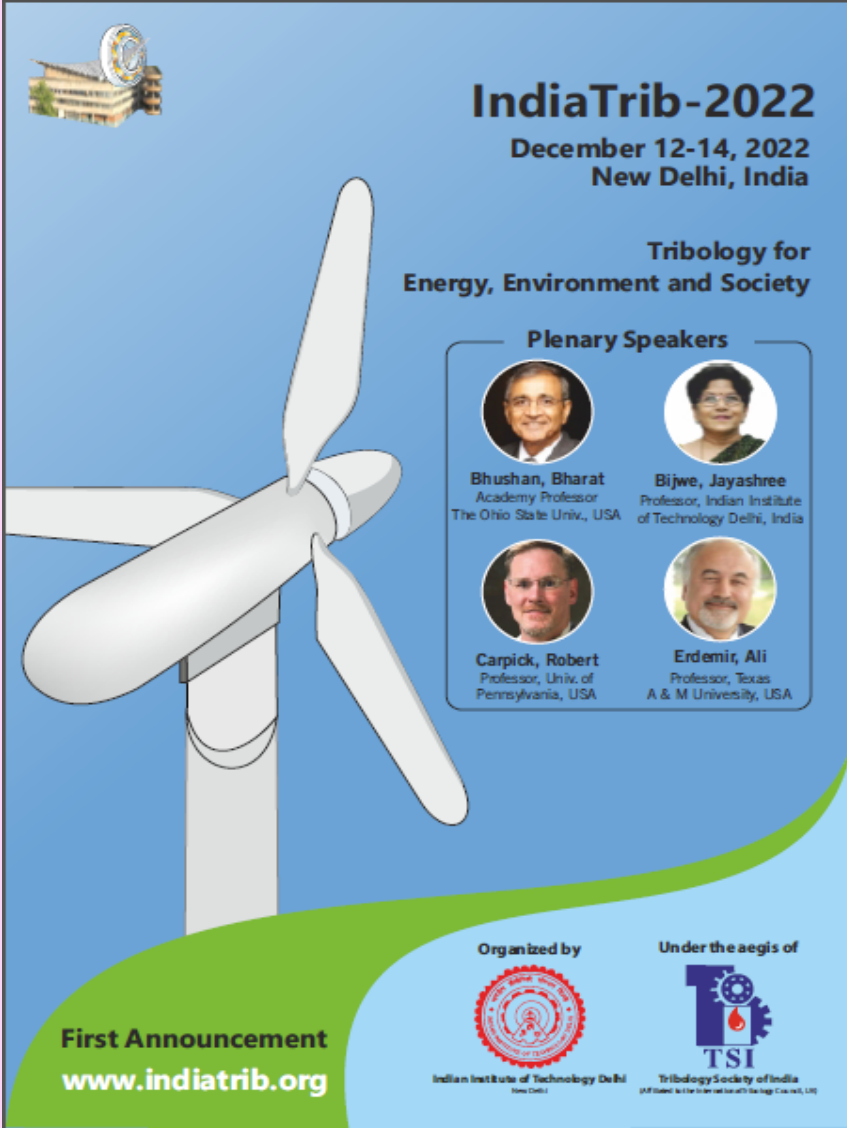
 We extend our hearty welcome to the new Members and look forward to their active contribution in TSI activities 

About IndiaTrib-2022

IndiaTrib-2022 is the upcoming mega tribology event in the series and will be the 11th International Conference on Industrial Tribology (ICIT) being organised by the Tribology Society of India since the year 1997 when the first International Conference on Industrial Tribology was organised at Kolkata. The last IndiaTrib conference was organized in 2019 at the Indian Institute of Science, Bangalore.

IndiaTrib-2022 is being organised by the Indian Institute of Technology Delhi (I.I.T. Delhi), during December 12-14, 2022 in Delhi, India's capital city. The theme of the conference is **"Tribology for Energy, Environment and Society"**.





<https://indiatrib.org/>




IndiaTrib-2022
December 12-14, 2022
New Delhi, India


**Tribology for
Energy, Environment and Society**

Plenary Speakers

| | |
|---|---|
|  Bhushan, Bharat Academy Professor The Ohio State Univ., USA |  Bijwe, Jayashree Professor, Indian Institute of Technology Delhi, India |
|  Carpick, Robert Professor, Univ. of Pennsylvania, USA |  Erdemir, Ali Professor, Texas A & M University, USA |

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





**Venue: IndianOil Institute of Petroleum Management (IIPM), Gurugram,
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<https://www.tribologyindia.org/pdf/14th-summer-school-in-tribology-new.pdf>

- *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*
- *Compiled by Mr. A. K. Mehta, ED (TSI) and Edited by Dr. Barun Chakrabarti, Vice President (TSI), on behalf of Tribology Society of India. This publication is for free circulation among TSI Members.*



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