



TSI NEWS LETTER

TSI Newsletter

June 2014

From the desk of Secretary – TSI



Dear Colleagues,

This issue of TSI Newsletter comes to you after conclusion of two very important events of our Society, namely, the flagship ASIATRIB-2014 Conference organized in Agra during 17 - 20 February 2014 and the 6th TSI Summer School in Tribology held during 23 - 27 June 2014 at IIPM - Gurgaon. Thanks to the whole-hearted support from all of you and your parent organizations, both the events turned out to be great successes for TSI.



ASIATRIB-2014 showcased the organizational capabilities of TSI as a Professional Society of international stature. In terms of quality of technical content, exhibition, networking opportunities, logistic arrangements and international participation we have managed to demonstrate very high standards. Thanks to the generous support from Sponsors, Advertisers and Exhibitors, we have also made the event financially successful, generating surplus that can be utilized for our future initiatives. The most important achievement is the high degree of visibility this event has brought to TSI at international level and the recognition that TSI can play a vital role in global Tribology initiatives, in the Asia-Pacific region in particular.

The 6th TSI Summer School lived up to the high expectations from Industry and Academia based on the previous five editions. By virtue of the excellent partnership between our dedicated organizing team from TSI Headquarters and the IIPM staff, the event has brought one more feather to TSI cap. The technical content of this year's Summer School was substantially revised as part of our efforts towards continual improvement, which has generated positive feedback. We also received financial support from DST, which proves that the TSI Summer School is now recognized as an important national event.

As you are already aware, the next big TSI event, National Tribology Conference (NTC-2014) is going to be organized by PES University, Bengaluru during 15 - 17 December 2014, for which preparations are under way. I am sure that we shall receive your whole-hearted support, as always, for this event. We look forward to seeing all of you at the Conference.

On the organizational front, the present TSI Executive Committee will make way for a new team during the Elections and Annual General Meeting scheduled in Bengaluru on the sidelines of NTC-2014. With your cooperation, the present Committee could achieve several major successes in the past two years, but a lot more still needs to be done to take TSI to even greater heights. Please do continue to provide your valuable support and encouragement to the new team.

With best wishes,

Dr. Barun Chakrabarti
Secretary - TSI

ASIATRIB-2014, 17-20 February, Agra, India

ASIATRIB - 2014 was organized at Agra, India during 17-20 February 2014 and it was the fifth in the series of International Tribology Conferences, being organized once in every four years, by one of the National Tribology Societies from Asia-Pacific countries. The previous one in this series of conferences, i.e., ASIATRIB-2010, was organized at Perth, Australia in December 2010.

The ASIATRIB - 2014 was inaugurated by Mr. M. A. Pathan, Advisor - IOT Infrastructure Ltd. and Former Chairman, Indian Oil Corporation Ltd. A message from Prof. H. Peter Jost, President, International Tribology Council (ITC), was read out during the inaugural session. In line with the theme of the conference, “*Green Tribology*”, the Chief Guest covered the concepts like sustainability and fuel economy in his inaugural address. As rightly emphasized by the Chief Guest, Tribology is just about anything “Green”, since it addresses conservation of precious resources like energy and materials.



Chief Guest Mr. M A Pathan, along with President (TSI), Secretary (TSI) and Organizing Secretary ASIATRIB 2014.



Chief guest inaugurating the Technical Exhibition along with Prof. Spencer and Prof. Bartz.

In remembrance of late Prof. Sanjay Biswas, Prof. Nicholas Spencer spoke on “*A Tribological Journey with Sanjay Biswas*” during the inaugural session. He described his close association with Prof. Biswas, their many travels together and the collaborative research work that resulted.

After the inaugural session, the Technical Exhibition organized at the venue was inaugurated by the Chief Guest, along with Prof Spencer and Prof Bartz.

Continuing with the ASIATRIB conference tradition, a Country Session was organized after the inauguration session, where country representatives from Japan (Prof. Nobuyoshi Ohno), Korea (Prof In Ha Sung), Australia (Dr. Anthony Somers) and India (Dr. Barun Chakrabarti and Ajay Kumar) made presentations covering current Tribology related activities in their respective countries.



Prof. Hong Liang delivering her Invited talk



Prof. Daniel Nelias delivering his Invited Talk



Prof. Braham Prakash from Sweden delivering his Invited Talk

Following are the highlights of the ASIATRIB 2014:

- 8 invited talks in 3 Plenary Sessions: these were delivered by Prof. Hong Liang, Ms. Thelma Marougy, Prof. Daniel Nelias, Prof. Pradeep Rohtagi, Prof. W. J. Bartz, Prof. Sujeet Sinha, Prof. Braham Prakash and Prof. Lev Rapoport.
- 36 Technical Sessions (six sets of six parallel sessions) with 144 oral papers
- One day of Poster Session with 38 poster papers
- Technical Exhibition with 19 exhibition stalls
- 2 Business Meet sessions with 5 commercial presentations: these included presentations from M/s Rtec Instruments, M/s Tianhe Chemicals, M/s Indian Oil Corporation Ltd., M/s Hindustan Petroleum Corporation Ltd. and M/s Tribosonics, UK.
- Over 270 delegates in attendance over four days
- Participation from 23 countries, including Australia, Austria, Brazil, China, Czech Republic, France, Germany, Hungary, India, Indonesia, Israel, Japan, Korea, Netherlands, Poland, Portugal, Russia, Singapore, Sweden, Switzerland, Taiwan, UK, USA.
- Sponsorship support from 8 companies: these included M/s Indian Oil Corporation Ltd., (Platinum Sponsor); M/s Tiahne Chemicals, M/s Rtec Instruments and M/s Lubrizol India (all Diamond Sponsors) and M/s Bharat Petroleum Corporation Ltd., M/s Hindustan Petroleum Corporation Ltd, M/s Bharat Heavy Electricals Ltd. and M/s National Engineering Industry Ltd. (all Gold Sponsors).



Korean Team headed by Prof Dae-Eun Kim and Prof In-Ha-Sung



Japanese Participants for ASIATRIB 2014 with Prof Nobuyoshi Ohno



Team from Sweden with Prof Braham Prakash



Team from Czech Republic with Prof. Kaneta Motohiro

The Winners in Oral Paper Presentation were: First - Albano Cavaleiro; Second - Waldemar Tuszynski and Third - Rahul Meshram.

The Winners in Poster Paper Presentation were: First - Naveen Pokhriyal; Second - Prasanta Kumar Padhi and Third - Henry Brunskill.

The participants of ASIATRIB - 2014 were entertained through a cultural evening, presented by the Gitanjali Group, with two musical renditions on the theme of *Mayur Dance* and *Brij ki Holi*. The event ended up with mass participation from the audience - much to the enjoyment of the delegates, especially the guests from overseas.



Ms Gitanjali of the Gitanjali Group entertaining the delegates



Delegates participating in the dance during the Brij Ki Holi Program

INTERNATIONAL CONFERENCE ON ADVANCES IN TRIBOLOGY (ICAT-14)

The **International Conference on Advances in Tribology (ICAT-14)** was organized by the Department of Mechanical Engineering, National Institute of Technology, Calicut, during 21-24 February, 2014. The conference aimed at providing a platform for interaction among specialists working in Tribology at various industries and academic institutions. Over 120 research papers were presented in thirteen parallel sessions.

Dr. M. N. Bandyopadhyay, Director of the Institute and Patron of the Advisory Committee of ICAT-14, delivered the Presidential Address.

The Principal Coordinator of ICAT-14, Prof. K. Prabhakaran Nair, welcomed the participants. Dr. P.K. Rajendrakumar, Professor, Department of Mechanical Engineering and Coordinator, ICAT-14, gave an overview of ICAT-14 program. Dr. Allesu K., Head of Department and Organizing Chair of ICAT-14, delivered an address on the Department of Mechanical Engineering and its areas of expertise.

Padmashree Dr. S. Ramakrishnan (Director, Vikram Sarabhai Space Centre, Thiruvananthapuram) delivered the Inaugural Address.

Followings are the highlights of the Conference:

- In the first plenary session, Prof. Dr. Dae-Eun Kim, Professor, Yonsei University, Korea, presented a keynote address on 'Characteristics and Prevention of Micro-Scale Wear Phenomena'.
- Keynote address of the second plenary session was delivered by Dr. M.S. Bobji, Associate Professor, Indian Institute of Science, Bangalore, on '*In situ* Transmission Electron Microscope – A New Tribological Tool'.
- Dr. Harish Hirani, Associate Professor, Indian Institute of Technology, Delhi, and Dr. Satish V. Kailas, Professor, Indian Institute of Science, Bangalore also delivered keynote addresses.
- In the last plenary session, the keynote address was delivered by Dr. Hakan Kaleli, Professor, Yıldız Technical University, Istanbul, Turkey.

The event was sponsored by Technical Education Quality Improvement Program (TEQIP), Department of Science and Technology (DST), Council of Scientific and Industrial Research (CSIR), MAK Lubricants (a subsidiary of Bharat Petroleum Corporation Limited), MAGNUM Engineers and SKF Bearings.



Padmashree Dr. S. Ramakrishnan, Chief Guest, along with Dr. M.N. Bandyopadhyay releasing the Conference Proceedings

TRIBOLOGY RESEARCH ACTIVITIES AT PES INSTITUTE OF TECHNOLOGY (PESIT), BENGALURU

Focus Areas :

- Development & Characterization of Thermally Sprayed Tribological Coatings
- Development of Self-lubricating Aluminium Based Composites for Automotive Applications

Sponsored Projects - Ongoing:

- “Development and Characterization of Aluminium Matrix Composites Floating Piston for Hydrogen Gas Suspension Unit” : Funding Agency CVRDE, Avadi, Chennai, Project Leader: Dr. C. S. Ramesh
- “Development of HVOF sprayed Inconel 718-Boron Nitride Composite Coatings for Wear and Corrosion Protection of Ship Building Steel”: Funding Agency Naval Research Board, DRDO, New Delhi, Project Leader: Dr. C. S. Ramesh

Memorandum of Understanding with Foreign Universities:

- **University West, Sweden:** Thermal Spray Coatings for Erosion & Corrosion – Focus : Boiler Industries. Dr. C. S. Ramesh is collaborating with Prof. Per Nylen, Director, Production Technology Centre, University West.
- **Bournemouth University, UK:** Electro-composite Coatings. Dr. C. S. Ramesh is collaborating with Prof. Zulfikar Khan, Director, Sustainable Design, School of Engineering Design & Computing, Bournemouth University, U.K.



Wire Spray Facility



High Velocity Oxy-Fuel (HVOF) Unit



Scratch Tester (Adhesion Testing)



Pin-On-Disc Tribometer



Air-Jet Erosion Test Facility
(Upto 400°C)

6th TSI SUMMER SCHOOL IN TRIBOLOGY: 23 – 27 JUNE 2014 AT IIPM, GURGAON

The 6th Summer School in Tribology (6th SST) was organized by Tribology Society of India at Indian Oil Institute of Petroleum Management (IIPM), Gurgaon during 23-27 June 2014. As in the previous five editions of SST, the 6th SST had a mix of Academia (29) and Industry (24) participants.

6th Summer School in Tribology
23rd - 27th June, 2014
IndianOil Institute of Petroleum Management, Gurgaon

Sitting Row : Ms./Mr. P.S. Suvin, Vinay Jaiswal, Sheikh Shahid Saleem, Ranjit Singh, Dr. R. Narasimha Rao, Srinivasa Reddy, Hiral H. Parikh, Prof. Satish V. Kailas, Srinivasulu Dampur, A.K. Mehta, A. Chaudhuri, Ajay Harinarian, Dr. Subasini Desai, Priyanka Modi, Dr. P. Ramkumar, P.K. Mahato, Goutam Das, Vinod Joshi
Standing I Row : Ms./Mr. N.Ch Kaushik, Vipin Goyal, Dr. Rajeswara Reddy Resapu, Joseph P. Antony, Dr. S. Arumugam, Dr. K. Somasundara Vinoth, Shakil Ahmad, Hemant Kumar, Shailesh R. Joshiara, Vikas Verma, Gaurav Sharma, Dinesh Haribhau Kamble, Zahid Pathan, Sandan Kumar Sharma, Sathwik Chatra KR, Amit Kumar Tamrakar, Mani Rahul Kiro, Muthu Nilavan
Standing II Row: Ms./Mr. Divij Sharma, Harsh Vardhan Singh, Rajeev Rajan Prasad, Dr. M.V. Thottackkad, Anish R. Gurvinder Singh, Akhil S. Karun, Pushkar Jha, Pranay A. Bagde, Kiran A. Chaudhari, Yogesh Kumar, MD. Mohsin Khan, Santhesh Kumar, Nagaraj Shanbhug, Staya Prakash Pathak, Kumar Sourav, Sandip Panda, Pratik K. Baheti, N. Sivasurian, Kushal Khemka, Kaushik Hebbar, Adarsha H., J. Gowtham Raj

The 6th SST was financially supported by Deptt. Of Science & Technology, (DST), Govt. of India and the venue arrangements, infrastructure facilities and board and lodging for the participants were provided by IIPM, Gurgaon. The technical sessions were conducted by eminent experts from the Industry and Academic Institutes and R&D Organizations. Complete details on the 6th SST, by way of Brochure and Technical Program, can be viewed at the following link:

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

- The event was inaugurated by Mr. Srinivasulu Dampur, Vice President - R&D, NEIL, Jaipur. Mr. Verghese Cherian, ED - liPM was the Guest of Honour. Prof. N. Vedachallam, ISRO Distinguished Prof., VSSC - Trivandrum delivered a much appreciated guest lecture on "Space Tribology" on the evening of the first day.



Chief Guest Mr Srinu Dampur , VP R & D NEI, Jaipur lighting the lamp during Inaugural Session



Mr C Vrghe, ED liPM and Guest of Honour , welcoming the participants of 6th SST.



Prof. N Vedachallam , delivering the guest lecture on " Space Tribology"

- The technical program included 20 lectures by experts from Industry, Academia and R&D Labs, covering basic and applied aspects of Tribology. A visit to Tribology Labs of IndianOil R&D Centre, Faridabad was also organized for all the participants.
- A 2- hour Multiple Choice Questions (MCQ) based examination was conducted for participants on the final day, covering the contents of technical lectures. Thirty-six participants out of fifty-three candidates scored above the qualifying marks (50%), the highest score being 88/100
- Mr. R. Suresh, ED (LT), IndainOil (R&D) was the Chief Guest for the Valedictory Session. Mr. A. Chaudhury, DGM (liPM) was the Guest of Honour for the session. The participation certificates were distributed to all the participants during the concluding session.



Mr. R Suresh , ED (LT) , IOC R&D and Chief Guest for the concluding session delivering his speech .



Mr. A Chaudhury , DGM liPM , distributing certificate to the participants

National Tribology Conference (NTC – 2014)

15 – 17 December 2014: Bengaluru, Karnataka

Theme: Innovative Practices in Tribology

Organized by:

Department of Mechanical Engineering, PES University, Bengaluru

Under the Aegis of

Tribology Society of India

Please mark your calendar to participate in NTC-2014 with your colleagues. All are invited to contribute technical papers and support the conference by way of Sponsorship, Business Presentations, Technical Exhibition and Souvenir Advertisements.

For further information, please contact: Prof. C. S. Ramesh, Organizing Secretary (csr_gce@yahoo.co.in).

The Conference Brochure can be viewed at: <http://www.tribologyindia.org/pdf/brochure-ntc-2014.pdf>

We look forward to seeing you all at NTC-2014 at Bengaluru.

TSI Membership for the period Nov. 2013 to Apr. 2014**

| S.No | DO Mem | LM # | NAME | DESIGNATION | ORGANISATION |
|------|-----------|------|-----------------------------------|-----------------------------|---|
| 1 | 28-Nov-13 | 5492 | VIRUPAKSHI P GIRISAGAR | ASSOCIATE PROFESSOR | BASAVESHWAR ENGG. COLLEGE BAGALBET |
| 2 | 28-Nov-13 | 5493 | ROHIT GUPTA | ASST. CONSULTANT | TATA CONSULTANCY SERVICES LTD. |
| 3 | 6-Jan-14 | 5588 | HARSHVARDHAN SINGH | LUBRICANT ENGINEER | VAS TRIBOLOGY SOLUTIONS |
| 4 | 6-Jan-14 | 5589 | SHUBHANG MISHRA | DEPT. GENERAL MANAGER ENGG. | INNOVENTIVE INDUSTRIES LTD |
| 5 | 6-Jan-14 | 5590 | M SOLAIRAJU | SCIENTIST | CVRDE, DRDO |
| 6 | 6-Jan-14 | 5591 | N RAJARAM | SCIENTIST | CVRDE, DRDO |
| 7 | 6-Jan-14 | 5592 | MAHIBALAN A | SCIENTIST | CVRDE, DRDO |
| 8 | 15-Jan-14 | 5593 | CHANDU S MADANKAR | RESEARCH SCHOLAR | IIT DELHI |
| 9 | 19-Feb-14 | 5594 | RASHMI RANJAN SAHOO | SCIENTIST | CMERI (CSIR) |
| 10 | 19-Feb-14 | 5595 | DEEPAK KUMAR , Dr | ASSOISTANT PROFESSOR | IIT DELHI |
| 11 | 19-Feb-14 | 5596 | MANJESH KUMAR SINGH | STUDENT, PhD | ETH, ZURICH |
| 12 | 25-Feb-14 | 5597 | PRASHANT K SHARMA | ASSOCATE PROFESSOR | UMCG |
| 13 | 3-Mar-14 | 5598 | SURENDRA PAL SINGH MATHARU | PROFESSOR | NIT, RAIPUR |
| 14 | 13-Mar-14 | 5599 | MR. PALLAV GUPTA | PROFESSOR | IIT BHU |
| 15 | 14-Mar-14 | 5600 | MR UTKARSH PANDEY | ASSTT. PROFESSOR | BVMCTM |
| 16 | 24-Mar-14 | 5601 | DR. RAJESH PUROHIT | ASSTT. PROFESSOR | MANIT, BHOPAL |
| 17 | 24-Mar-14 | 5602 | DR. RAVINDRA SINGH RANA | ASSTT. PROFESSOR | MANIT, BHOPAL |
| 18 | 28-Mar-14 | 5603 | MR. VISHAL TULSHIRAM MAHALE | ASSTT. PROFESSOR | MITCOE, PUNE |
| 19 | 28-Mar-14 | 5604 | MR. DIPAK KUMAR | RESEARCH SCHOLAR | MNNIT, ALLAHABAD |
| 20 | 09-Apr-14 | 5620 | DR MANORANJAN KUMAR MANOJ | ASSTT. PROFESSOR | NIT RAIPUR |
| 21 | 09-Apr-14 | 5621 | MR SHANAVAS S | ASSTT. PROFESSOR, HOD | YOUNUS COLLEGE OF ENGINEERING FOR WOMEN |
| 22 | 19-Apr-14 | 5627 | MR THAKKAR PRAGNESH LAXMIRAM | ASSTT. PROFESSOR | L D COLLEGE OF ENGG. |
| 23 | 19-Apr-14 | 5628 | MR. PANCHAL GIRISHKUMAR CHANDULAL | ASSTT PROFESSOR | GOVT ENGG COLLEGE |
| 24 | 24-Apr-14 | 5629 | MR. MANVANDRA KUMAR SINGH | RESEARCH SCHOLAR | IIT BHU VARANASI |

**A large number of 377 new members added. This includes 24 Life Members as above and 353 Student Members (324 from Vardhaman C of Engineering 4 from MNIT, Jaipur and 25 from SRM University, Chennai)

Compiled by ED (TSI) and Edited by Dr. Har Prashad,
Vice President (TSI) and Dr. Barun Chakrabarti
Secretary (TSI) on behalf of Tribology Society of India

Send your suggestions/feedback/contributions to
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