



SRM

INSTITUTE OF SCIENCE & TECHNOLOGY
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ASM
INTERNATIONAL
CHENNAI CHAPTER

MATERIALTM
ADVANTAGE

The Student Program for Materials Science and Engineering

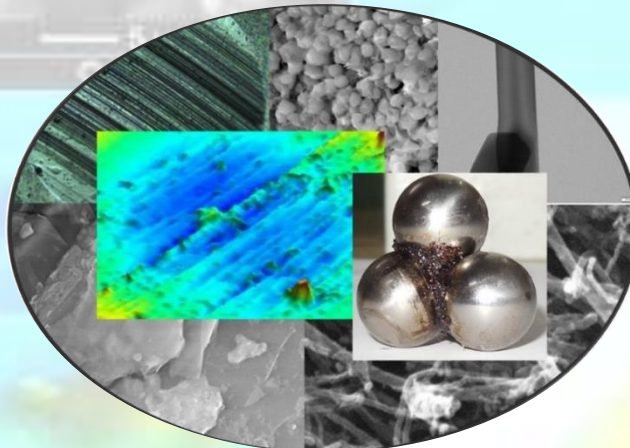
International Conference

On

Friction, Wear and Lubrication

(FWL 2022)

14th – 16th October 2022



Jointly Organized by:

ASM International Chennai Chapter

Material Advantage Student Chapters

and

Department of Mechanical Engineering

SRM Institute of Science and Technology

Kattankulathur

Tamil Nadu 603203

About the conference and ASMICC

Friction, wear and lubrication are the inevitable phenomena which control our daily life. But whether friction is a boon or a bane depends on the type of applications we are talking about. It is correctly pointed out by several researchers that a country's GDP fully depends on the control of friction, which ultimately controls wear. To minimize friction and reduce wear, one of the best possible way is to use a lubricant. However, the selection of a correct lubricant according to an application is always a challenge for several industries. The practice of controlling friction and wear and using the correct grade of lubricant will enhance the life of the machineries, increase the output, and reduce the consumption of energy, thus leading to the economic growth of the country. Several industries are successful in controlling friction and wear with the proper selection of lubricants, and hence those industries have always shown a profitable curve. With the advancement of technologies, there has been enormous development in research in the areas of combating friction and wear. The lubrication industries have also developed high end products for critical applications, also looking into the concern for environmental hazards.

To provide a common platform to work in friction, wear and lubrication, ASM International Chennai Chapter (ASMICC) has decided to focus on friction, wear and lubrication. The regular discussions of the members of ASMICC and their concern about friction, wear and lubrication gave birth to this conference which is the first in series. ASM International Madras Chapter was inaugurated on 10th June 1985, under the chairmanship of late Mr. T.V.N. Kidao, a renowned metallurgist. The Honourable Minister for Industries, Government of Tamil Nadu Mr. K. Rajaram was the chief guest. Dr. Brian Ives, President, ASM International, U.S.A. (then Known as American Society for Metals) and Dr. Agrawala travelled to Madras - specially for this purpose and handed over the charter to Mr. T.V.N. Kidao during the grand inaugural function held at Hotel ITC Park Sheraton, Chennai. Subsequently the name was changed to ASM International Chennai Chapter. The ASM headquarters in USA has introduced a system for assessment of the performance of different chapters. The Chennai chapter took up the challenge and the past chairman Mr. Veluru Parthasarathy activated the chapter by conducting various programs. The Head Quarters awarded the Chennai Chapter with the Five Star award in 2001-2002 which was the only chapter to receive the Five Star Award outside U.S.A. at that point of time. Then onwards, the Chapter has continued to get several awards. Recently, under the Chairmanship of Dr. M. Kamaraj and the support from all the members, the ASMICC got the prestigious awards in innovative programming and membership retention and recruitment from ASM International. ASMICC always believes on the younger generation and cultivates the notion of leadership in the young members. The belief of the senior ASM members on the young generation ASM members have resulted in successful flagship events such as the International Conference on Heat Treatment and Surface Engineering (HTSE) in 2013, 2016, and 2020 along with numerous workshops.

ASMICC understands the importance of controlling friction and wear as well as the selection of right lubricants and hence, ASMICC took a major decision of organizing the "International Conference on Friction, Wear and Lubrication (FWL)" jointly with Material Advantage and the Department of Mechanical Engineering, SRM Institute of Science and Technology, Kattankulathur Campus. The conference will not only be a common platform for the participants to share and display their research results but will also act as a connecting gate between the industry and academia.

About Material Advantage Student Chapter

The Material Advantage Student Chapter at SRM Institute of Science and Technology, Kattankulathur campus is a society of students highly motivated to work in the domain of materials engineering and want to make a mark in their career. Student members of this chapter have access to several prominent societies such as:

The American Ceramic Society
Association for Iron and Steel Technology
ASM International- The Materials Information Society
TMS – The Minerals, Metals and Material Society.

The chapter is regularly organising seminars, workshops and lecture series pertinent to the objective of the chapter.

About SRM Institute of Science and Technology

SRM Institute of Science and Technology (formerly known as 'SRM University') is in an extensive sylvan campus of 380 acres skirting the National Highway (NH145), in the outskirts of Chennai. SRMIST is one of the top-ranking Universities and most premier engineering destinations in India, which is established in 1985 by the Founder Chancellor, Dr. T.R. Paarivendhar. Now it is functioning in campuses located at Kattankulathur, Ramapuram Part (Vadapalani) and Ramapuram in Chennai and one in Modi Nagar, Ghaziabad with over 52000 students and 3200 faculty members, offering wide range of undergraduate, postgraduate and doctoral programs in Engineering, Management, Medicine & Health Sciences, Agriculture, Law and Science & Humanities. The Institution has moved up through international alliances and collaborative initiatives to achieve global excellence. SRMIST also collaborates with various foreign Universities. Now the Institute enjoys an unsurpassed reputation in academic and corporate circles being the preferred manpower source for vision to be recognized as a world - class learning institution. SRMIST has been accorded Category I status by MHRD-UGC of Government of India and accredited by NAAC with 'A++' Grade in the year 2018.

About Department of Mechanical Engineering, SRMIST

The Department of Mechanical Engineering is one of the pioneering departments of SRMIST. The department is functionally divided into four broad areas of (i) Design (ii) Manufacturing and (iii) Thermal Engineering. B.Tech. Mechanical Engineering program at Kattankulathur campus is accredited by Engineering Accreditation Commission (EAC) of ABET, USA, (www.abet.org). The department also offers M.Tech. and Doctoral programs in various specializations. The present faculty strength is 135. About 800+ research papers and 850+ conference papers have been published in national and international levels. More than 30 patents have been filed in national and international levels.

The following salient workshops and conferences was conducted by the Department of Mechanical Engineering, KTR Campus: International Conference on Advances in Mechanical Engineering 2006, Short Course on Mechanics of Composite Materials and Structures: 2015, Workshop on Development, Manufacturing and Analysis of Advanced Composites, 2015 and short course on FEM, 2015, National Conference on Advances in Mechanical Engineering (NCAME 2016), Brain Wave Robotics, 2017,

International Conference on Advances in Mechanical Engineering (ICAME 2018) and 2nd international Conference on Advances in Mechanical Engineering (ICAME 2020), TRIBOINDIA 2020.

Vision of the Department of Mechanical Engineering:

To impart knowledge to our students in an ambience of Humanity, Wisdom, Intellect, Creativity of Innovation in order to nurture them Culturally and Ethically rich professionals with bright future.

Mission of the Department of Mechanical Engineering:

- To impart quality education to produce mechanical engineers and enhance their skills to become world renowned professionals.
- To establish Centers of Research Excellence to inculcate research acumen in faculty and students on the areas like; machining, biomechanics, bio-fuels, composites, and energy.
- To provide state-of-the-art education and training programs to the faculty and student fellowship

About activities on friction, wear and lubrication at SRMIST

The Department of Mechanical Engineering has a dedicated team of faculties who work in friction, wear and lubrication in a well-equipped laboratory- **Tribology and Surface Interaction Research Laboratory**. This fully functional research laboratory is handling funded projects from several industries and government agencies. Students of this laboratory are sent to reputed institutes for internship in friction, wear and lubrication.

The laboratory initiated several MoUs with foreign universities and the outcome was seen in joint publications and internship for students. The faculties associated with the laboratory publishes high end research articles in association with several industries and have successfully completed several industry-sponsored and government-funded projects. The **SRMIST Material Advantage Student Chapter** consists of student members from different branches of science and engineering. The Chapter organizes several guest lectures and arranges internships for students. They also organize several technical events where the participants need to apply their knowledge of science and engineering to solve a problem.

Sponsorship and advertisement details

Category	Indian (INR)*	Foreign (USD)*	No. of free delegates	Page inside Souvenir (Full-Colour)	Publicity	Business presentation (35 minutes)	Exhibition space
Platinum	6,96,200/-	9282	5	Yes	Website, banners(2), exhibition space	Yes	Yes
Diamond	5,56,960/-	7426	4	No	Website, banner(1)	No	No
Gold	2,78,480/-	3713	3	No	Website	No	No
Silver	1,39,240/-	1856	2	No	Website	No	No

Souvenir

	Indian (INR)*	Overseas (USD)*
Front cover (inside):	27,500/-	366
Back cover (inside/outside):	27,500/-	366
Full colour page inside	18,000/-	250
Colour page (Half)	12,000/-	180
Black and white (Full)	8,500/-	120
Black and white (half)	6,500/-	115

Company presentation*: INR 30,000 or USD 400 (overseas) for 45 minutes.

Exhibition space*:

- Category I: Stall size (lxb) 10ft x10ft: INR 35,400/- per stall or USD 472 (overseas).
- Category II: Stall size (lxb) 20ft x10ft: INR 60,500/- per stall or USD 810 (overseas).

Registration fees*

Category	Registration Fees**
Student Delegates	INR 2360
Academic delegates	INR 5500
Industry delegates	INR 5500
Foreign delegates	USD 120
Foreign delegates – Students	USD 60

***All the above prices are inclusive of taxes. At present GST of 18% are applicable to the above prices.**

A discount of 10% will be applicable for ASM members and 20% for Material Advantage Student members. ****At least one author needs to be registered for presentation.**

Payment Details

All payments related to registration of delegates, sponsorship, advertisements, technical exhibitions, and manufacturer's presentations etc. can be made through online payment or by demand draft/cheque drawn in favour of **ASM INTERNATIONAL CHENNAI CHAPTER** payable at **Chennai**.

NEFT/RTGS/BANK TRANSFER

Account Name **ASM INTERNATIONAL
CHENNAI CHAPTER**

Account No. 032494600000404

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CHENNAI 600102

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**ASM INTERNATIONAL CHENNAI
CHAPTER**

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Ambattur, Chennai 600 098
GST No.: 33AAGAA0488F1Z1

Email: fwl2022@srmist.edu.in

Important dates:

Last date for submission of abstract : 30th May 2022
Notification of acceptance of abstract : 31st July 2022
Last date for registration : 15th August 2022
Date of conference : 14th – 16th October 2022
Please visit ASM ICC website <http://www.asmchennaichapter.com/> to submit your abstracts (max. 300 words). For any clarification, please write to fwl2022@srmist.edu.in

The abstract should indicate the title, authors, affiliations and email of the corresponding author. All abstracts must be submitted in Word Document format for editing purpose. Authors are also encouraged to submit their manuscripts in journals associated with this conference.

Special Issue: Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering tribology

Call for papers:

Papers are invited from Scientists, Academicians and Practicing Engineers for technical sessions in the following areas (from nano scale to bulk materials). Authors are encouraged to submit their original articles to the indexed journals. The articles will undergo journals standard review process.

- Surface treatments
- Composites
- Coatings
- Fretting
- Corrosion
- Bio-mimetics
- Sustainable approaches of controlling friction
- Condition monitoring
- Friction measurement devices
- Lubricants and additives
- Friction Materials
- Friction and wear controlling aspects in design & manufacturing. Case studies.
- Artificial intelligence and machine learning in friction, wear and lubrication
- Material Design for controlling friction and wear
- Tribo-electric generators
- Wear and lubrication failure analysis – Case Studies
- Wear Modelling and Reliability
- Contact Mechanics
- Surface damage due to cavitation

Manuscript including findings from nano to macro scale of applications are in the scope of this conference. Authors are requested to highlight the performance enhancement in terms of friction, wear and lubrication in their abstracts and manuscript.

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Dr.R.Ramaseshan, IGCAR Kalpakkam

Venue of the conference:

Dr. T.P. Ganesan Auditorium, SRM Institute of Science and Technology, Kattankulathur Campus, Chennai, Tamil Nadu 603203

How to reach SRMIST Kattankulathur?

The SRM Institute of Science and Technology (SRMIST) Kattankulathur is 40 km from Chennai city on NH 45 and around 20 km from Chennai Airport.

From Airport the campus is well connected via call taxis, local train (Tirusulam Railway Station → Potheri Railway Station) and buses. There are also frequent buses connecting Chennai city, Tambaram and Potheri (bus stop at SRMIST-KTR Campus).

Apart from public transports several call taxis are also available. The campus is well connected via local train from Chennai Beach Station by the trains towards Chengalpattu.

SRMIST Kattankulathur Campus is just opposite to Potheri Railway Station.

Contact: Organizing Secretaries, Mr. J. Daniel Glad Stephen (SRMIST), +91-9486080162 and Dr. Shubrajit Bhaumik, +91-9840439097 ASMICC WAGNER High Quality Lubricants. Email: fwl2022@srmist.edu.in

Glimpses of Conference Venue:

SRM Institute of Science and Technology, Kattankulathur, Tamil Nadu.

