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Report on the 27th National and 5th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2023)

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The 27th National and 5th International ISHMT-ASTFE Heat and Mass Transfer Conference (IHMTC-2023) took place at the Indian Institute of Technology Patna from December 14th to 17th, 2023. The conference is a biennial event organized by the Indian Society of Heat and Mass Transfer (ISHMT) in collaboration with the American Society of Thermal and Fluids Engineers (ASTFE). Since its inception in 1971, the conference has evolved into a prestigious platform for researchers, scientists, and industry professionals to share and discuss advancements in heat and mass transfer.

Inauguration of IHMTC-2023.

Prof. K.N. Seetharamu Medal and Prize-2023 awarded to Prof. Dr. Purbarun Dhar, IIT Kaharagpur

Conference Overview:
The IHMTC-2023 featured a rich program, including four (04) plenary lectures, thirteen (13) keynote sessions, four (04) industry sessions, forty-eight (48) parallel sessions, and three (03) poster sessions. The event focused on diverse themes related to energy, fluid flow, heat and mass transfer. The conference received a significant number of paper submissions, totaling 419 across 24 diverse themes. After a rigorous two-round review process, more than 350 papers were accepted, with an average of 2.3 reviews per paper. The accepted papers were presented in two formats: 215 oral presentations and 120 poster presentations.

Plenary speaker, Prof. Zhuomin Zhnag, Georgia Tech. being felicitated.

Kenoye speech Dr. Sunil Kumar from Indian Space Resaerch organizatio (ISRO)

Publication and Special Issues:
The IHMTC-2023 announced the publication of many special issues in reputed journals such as the *Internal Communications in Heat and Mass Transfer* and *Begell House Journals*. The commitment to ensuring a high-quality review and publication process was appreciated by all participants.

Participation:
The conference attracted nearly four hundred (~400) participants from more than ten (10) countries and various organizations, including ISRO, BARC, IGCAR, DRDO, CSIR, ANSYS, and others. The conference received support from agencies such as SERB, BRNS, CADFEM, AMETEK, and publishing houses like Begell House and ACS.

Cultural Programme

Conclusion:
The IHMTC-2023 provided a comprehensive platform for researchers and professionals in the heat and mass transfer community. The commitment to maintaining high standards in paper selection, the global participation, and the emphasis on industry collaboration underscored the success of the conference. The organizers expressed hope for a rewarding and enjoyable conference experience for all participants, highlighting the efforts made to ensure both technical enrichment and comfort. Feedback from attendees was encouraged to further enhance future conferences.

Group Photo

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Indian Society for Heat and Mass Transfer (ISHMT)

P. K. Vijayan and Arvind Pattamatta

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A Two-Day Workshop on 'Multiphase Flows and Applications to Heat Transfer' January 2025
The workshop took place on January 6–7, 2025, at the ICSR Hall, IIT Madras, Chennai, India. It was organized by Prof. Arvind Pattamatta from the Department of Mechanical Engineering, IIT Madras. Titled **"A Two-Day Workshop on Multiphase Flows and Applications to Heat Transfer,"** the event offered an immersive and informative experience focused on the latest advancements in multiphase flow and heat transfer. Over the two days, participants engaged with state-of-the-art research and gained valuable knowledge on emerging trends in the field. The workshop featured a diverse panel of expert speakers, including leading researchers and industry professionals, who delivered insightful lectures and interactive sessions on a wide range of relevant topics. Designed for engineers, researchers, and professionals alike, the workshop aimed to provide attendees with cutting-edge insights and current developments in multiphase flows and heat transfer.

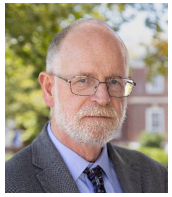
ISHMT Best Ph.D thesis awards 2024

Dr. Shubham Sharma, IISc Bengaluru
Secondary Atomisation of a Droplet in Diverse Interaction Settings.

Dr. Tibin M Thomas, IIT Madras
Atmospheric Water Vapor Condensation on Engineered Surfaces.

ISHMT Golden Jubilee Lecture Series 2024

To commemorate the 50th anniversary of ISHMT's establishment, the 'Golden Jubilee Lecture Series' was inaugurated as a webinar initiative. Over the past two years, the series has successfully hosted 15 online lectures, featuring renowned experts in the field of thermal sciences. The details of the three Webinars hosted in the previous year are given below:



Numerical Simulations and Modeling of Multiphase Flows
Prof. Gretar Tryggvason
Professor & Head of the Department of Mechanical Engineering, Johns Hopkins University, USA

Optical and Thermal Evaporation
Professor Gang Chen
Department of Mechanical Engineering, Massachusetts Institute of Technology, USA

State Estimation and Predictive Control Applied to the Treatment of the Hypoxic-Ischemic Encephalopathy in Neonates
Helcio R. B. Orlande
Department of Mechanical Engineering, COPPE, Federal University of Rio de Janeiro, RJ, Brazil