



ABOUT THE WORKSHOP

The objective of this workshop is to provide a detailed understanding of flow boiling phenomena, focusing on fundamental principles, multiscale transport mechanisms, and their relevance to real-world applications. Flow boiling is widely used in systems such as power generation, refrigeration, electronics cooling, and chemical processing. Despite its importance, the design and operation of such systems remain challenging due to the combined effects of heat transfer, phase change, fluid flow, and surface interactions. Topics to be covered include boiling heat transfer in tubes and microchannels, methods to enhance heat transfer using structured and coated surfaces, and the influence of various operating conditions on system performance. The workshop will also examine the link between small-scale processes such as bubble nucleation and departure and large-scale performance measures like heat flux and pressure drop. Both experimental findings and theoretical models will be discussed.

This workshop is aligned with national initiatives such as Make in India and Skill India, aimed at strengthening technical competence in thermal system design and development. Research scholars, faculty members, and professionals from industry are invited to register. The workshop will feature lectures by experienced speakers from academic institutions, research centres, and industry, promoting exchange of ideas and collaboration.

DST-ANRF FUNDED FIVE DAYS ONLINE
WORKSHOP
on
**Frontiers in Flow Boiling:
Exploring Multiscale
Transport, Industrial
Applications, and Future
Pathways**

(18th August 2025 to 22nd August 2025)

Resource Persons

Professor Sandip Kumar Saha, IIT Bombay
Professor Arup Kumar Das, IIT Roorkee
Professor Chander Shekhar Sharma, IIT Ropar
Professor Rishi Raj, IIT Patna
Dr. Kuldeep Singh, University of Nottingham
Dr. Arvind Kumar, Inficold India Pvt. Ltd.
Professor Ankur Miglani, IIT Indore
Professor Manoj Kumar Moharana, NIT Rourkela

Organisers

Prof. A. Sathyabhama
Professor, Department of Mechanical Engineering
NITK Surathkal

Prof. Ramakrishna N. Hegde
Dean, Srinivas University, Institute of Engineering and
Technology, Mukka, Mangalore

ABOUT NITK, SURATHKAL

Since its establishment in 1960, the National Institute of Technology Karnataka (NITK), Surathkal has emerged as one of India's premier institutions, renowned for imparting high-quality technical education and conducting advanced research. Recognized as an Institute of National Importance under the NIT Act No. 29 of 2007 by the Government of India, NITK consistently ranks among the top ten technical institutions in the country. Currently, the institute offers 9 undergraduates (B. Tech), 28 postgraduate (MTech, M.Sc., MBA) programs, along with robust doctoral (Ph.D.) programs across various disciplines. NITK is deeply committed to fostering innovation, nurturing talent, and enhancing the capabilities of its students and faculty with the aim of producing leaders in their respective fields. With a vision to strive for excellence and global competitiveness in technical education, the institute emphasizes the assimilation, generation, and dissemination of knowledge. NITK's picturesque 300-acre campus is located 22 kilometres north of Mangalore city, along the Kanyakumari–Mumbai National Highway (NH-66), flanked by the majestic Western Ghats to the east and the serene Arabian Sea to the west, offering a unique and inspiring academic environment.

THERE IS NO REGISTRATION FEE

Last Date of Registration for the workshop is 10 August 2025.

18/8/2025 - 22/8/2025

Venue
Google Meet

For more details contact: flowboilingnitk@gmail.com

ABOUT SSR Scientific Social Responsibility initiative can boost mentoring in science The Department of Science and Technology (DST) along with Anusandhan National Research Foundation (ANRF) has developed a Scientific Social Responsibility (SSR) initiative, which aims to spread the benefits of research beyond the borders of the direct beneficiaries especially to schools and colleges, universities and institutions in and around the location of the research. The initiative intends to effectively utilize the R&D infrastructure and expertise of researchers to benefit other S&T stakeholders and the society and embed a participatory, inclusive, and sustainable culture of social responsibility among research grantees.



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