



IUTAM Symposium on Flow and Instabilities of Complex Fluids FICF2026

14 – 18 December 2026 | IITM Zanzibar, Tanzania



**IIT Madras
Zanzibar**

About Symposium

Complex fluids and their instabilities underpin a wide range of natural phenomena and engineering systems, spanning biological transport, soft matter, granular media, and environmental and energy processes. Subtle microstructural rearrangements can trigger striking macroscopic patterns and transitions. Understanding and controlling such instabilities remain central challenges in developing predictive models and innovative technologies. Addressing these challenges, this symposium brings together researchers across theory, computation, and experiment, with emphasis on microstructure–flow interactions, pattern formation in complex fluids, and applications in microfluidics, granular transport, and sustainable energy.

The symposium is designed to support capacity building and the next generation of researchers, providing opportunities for early-career scientists—including PhD students, postdoctoral fellows, and young faculty—to present their work, interact with established experts, and develop international collaborations. Committed to inclusivity, the symposium actively encourages participation from underrepresented regions and communities. By hosting the meeting at IIT Madras Zanzibar (Tanzania, Africa), the symposium contributes to expanding the global reach of IUTAM activities and strengthening scientific engagement within Africa and worldwide.

Themes

FICF2026 will cover a range of oral talks and posters addressing both fundamental and applied scientific problems in the following theme (but not limited to):

- **Fundamental Physics of Complex Fluids & Instabilities** — nonlinear rheology, interfacial instabilities, viscoelastic and multiphase flow dynamics
- **Granular and Active Matter Systems** — sand dunes, jamming, collective motion in active suspensions, granular–fluid coupling
- **Energy, Environment & Sustainability** — porous media flows, CO₂ capture, sediment transport, geophysical flow instabilities, renewable energy applications
- **AI/ML in Fluid Mechanics** — data-driven constitutive models, reduced-order modeling of instabilities

Organizers

Chair

Priyanka Shukla
IIT Madras, India.

Co-Chair

Preeti Aghalayam
IIT Madras, India.



Web: ge.iitm.ac.in/ficf-symposium

Email: iutam_ficf@smail.iitm.ac.in