

# Workshop

on

## **Fluidics with Deformable Interfaces**

July 26 – August 8, 2021

*Sponsored by*

**Scheme for Promotion of Academic and Research Collaboration (SPARC)**

Workshop Coordinators: Dr Jeevanjyoti Chakraborty (IIT Kharagpur)

Dr Ivan C Christov (Purdue University)

Workshop Co-Coordinators: Prof Suman Chakraborty (IIT Kharagpur)

Prof Steven T Wereley (Purdue University)

**Aim:** The objective of this workshop is to bring together researchers working on a broad range of research areas that have the common underlying theme of flows involving deformable interfaces. The topics of interest have wide-ranging applications in tribology, colloidal and interfacial phenomena and bioengineering. The workshop will primarily comprise dissemination of the motivations, research endeavors and crucial findings in the studies on the theme by each of the speakers. Two important outcomes we expect to achieve with this workshop is – (a) to illuminate the participants with the contemporary state of research on the specified theme and the different application areas it caters to, and (b) to inspire collaborations between the attendees towards new research directions and applications on the specified theme bearing an active relevance to academics and industry. Apart from the facet of research, the workshop will also have an academic component, in the sense that the fundamental concepts that enable research on the specified theme will be briefly discussed by the experts.

**Topics:** Soft Lubrication; Deformable Confinements; Electrokinetics; Fluid-Structure Interaction.

**Fundamental Areas:** Fluid mechanics; solid mechanics; deformation of thin structures (membranes, tubes, etc.); perturbation analysis; numerical methods.

**Target Audience:** Senior undergraduate and postgraduate students and working professionals involved in research and teaching. The workshop is FREE for all participants.

**Speakers:**

1. Prof. David J. Smith - School of Mathematics, University of Birmingham (UK)
2. Prof. Dominic Vella - Mathematical Institute, University of Oxford (UK)
3. Prof. Moran Bercovici - Mechanical Engineering, Technion (Israel)
4. Dr Ivan C Christov - Mechanical Engineering, Purdue University (USA)
5. Dr Jeevanjyoti Chakraborty - Mechanical Engineering, IIT Kharagpur
6. Prof Suman Chakraborty - Mechanical Engineering, IIT Kharagpur
7. Prof Steven T Wereley - Mechanical Engineering, Purdue University (USA)
8. And a few others ...

**Registration Procedure:**

Applicants should fill and submit the Google form (to be circulated separately) for their registration. **Please note that the last date of registration is July 25, 2021.**