

ME@75 Oral Presentation Schedule (June 30th, 2022)

Date	Venue	Time	Session Chairs	Category	P-No.	Title	
Day 2 - 30th June	Main Hall	9:30AM-10:00AM	Prof. K. R. Y. Simha	Invited talk		Topology, Geometry, and Fracture in Networked Materials: A tale of Scales - Prof. Ahmed E Elbanna, UIUC	
		10:00AM-10:30AM		Invited talk		Geometry and Mechanics of Crumpled Paper Sheets - Prof. Anurag Gupta, IITK	
		10:30AM-11:00AM					Tea break
		11:00AM-11:15AM	Prof. Shyamprasad Karagadde	Multiphase Flows and Flow Instabilities	49	Added mass and drag effect on a buoyant ball - Suryadev Pratap Singh, Harish N Mirajkar, Jaywant Arakeri and K. R. Sreenivas	
		11:15AM-11:30AM			50	Continuum Approach-based Accurate Modelling of Blood Flow in a Microchannel - Shivji Prasad Yadav, Amit Agrawal and Atul Sharma	
		11:30AM-11:45AM			64	Drop of viscoelastic fluid subjected to uniform electric field - Sarika Bangar and Gaurav Tomar	
		11:45AM-12:00PM			78	Effect of particle loading on surface wettability of shear thickening fluids (STFs) - Preeti Yadav, Meka. V.R. Sudheer, Kaustubh Naik, Avinish Singh Parmar and Udit Uday Ghosh	
		12:00PM-12:15PM			63	Linear Instabilities in a compressible channel flow - Mandeep Deka, Gaurav Tomar and Viswanathan Kumaran	
	12:15PM-12:30PM	62			DNS study of a planar turbulent jet flow: effect of a pintle-shaped orifice - Prince Charles and Vagesh D Narasimhamurthy		
	Hall A	11:00AM-11:15AM	Prof. Ashitava Ghoshal	Dynamics	44	Comparative Analysis on Dynamic Replanning over CG-Space of 10 DOF Rover using Modified APF, RRT*, and PSO - Shubhi Katiyar and Ashish Dutta	
		11:15AM-11:30AM			94	A monolithic Finite Element Method for coupled fluid-structure-electrostatic interaction problems - Suman Dutta and C. S. Jog	
		11:30AM-11:45AM			59	An interactive application to study joint torques for the development of an upper limb exoskeleton - Parvathi Sunilkumar and Santhakumar Mohan	
		11:45AM-12:00PM			84	Design of a vibration isolator based on a modified Gough-Stewart platform - Yogesh Pratap Singh and Ashitava Ghosal	
		12:00PM-12:15PM			36	A Slender Body Theory for special Cosserat Filaments in Stokes Flow - Mohit Garg and Ajeet Kumar	
		12:15PM-12:30PM			58	Repelling Corona Virus with Quantum Electrodynamic Forces - Devaprakasam Deivasagayam	
	Hall B	11:00AM-11:15AM	Prof. Vara Naga Surendra Kamadi	Strength of Materials	142	A Multiphase Field Framework Application To Study The Complete Peritectic Reaction At High Undercooling - Umair Hussain, Gandham Phanikumar and Narasimhan Swaminathan	
		11:15AM-11:30AM			155	Mechanical and tribological properties of polymer derived nano-ceramic composite of AA6061 - Sachin Kumar and Satish V Kailas	
		11:30AM-11:45AM			166	Strength Evaluation of Cold-Formed Steel Stud with Holes using Design Strength Method - Chanchal Sonkar, Siddharth Behera and Apeksh Tyagi	
		11:45AM-12:00PM			176	Automatic Quantification of Fracture Crack Evolution using Full-Field Strain obtained from Digital Image Correlation - Vipin Chandra and Pritam Chakraborty	
		12:00PM-12:15PM			179	Gear Fault Detection Using Noise Analysis and Machine Learning Algorithm with YAMNet Pre-trained Network - Sanjana Patil and Kiran Wani	
		12:15PM-12:30PM			132	Tactile friction in boundary lubrication - Suyash Gairola, Sanjeev Kumar Gupta and M.S. Bobji	
	Hall C	11:00AM-11:15AM	Prof. Atul Sharma	Fluids and Structures	100	Flow over an axisymmetric blunt cylinder: Effect of cavitation on drag and sound level - Rahul R, Dhiman Chatterjee and Shamit Bakshi	
		11:15AM-11:30AM			95	Determination of Hydrodynamic Forces and Moments of an AUV Using CFD - Swapnil Jagadale, Vishwanath Nagrajan, Anirban Bhattacharyya and Om Prakash Sha	
		11:30AM-11:45AM			89	Cellular Vortical Structures behind a cone in a uniform stream - Uday Raj Singh and O.N. Ramesh	
		11:45AM-12:00PM			99	Development of a general pressure equation based incompressible flow solver - Dheeraj R and Sudhakar Yogaraj	
		12:00PM-12:15PM			97	Fabrication of Patterned Surfaces with wettability contrast for Multiple Applications - Ravi Kant Upadhyay and Chander Shekhar Sharma	
		12:15PM-12:30PM			111	Size and shape of polymer chains in MPCD solvent: Linear vs Star configurations - Prabeen Kumar Pattnayak, Alope Kumar and Gaurav Tomar	
	Main Hall	2:00PM-2:30PM	Prof. Debopam Das	Invited talk			Nucleate boiling under the effect of externally actuated surfaces - Prof. Amitabh Bhattacharya, IITD
2:30PM-4:00PM			Fluids Invited talks			Prof. K. R. Sreenivas (JNCASR), Prof. Sanjay P. Sane (NCBS), Prof. Debopam Das (IITK), Prof. M.S. Bobji (IISc), Prof. A.P. Baburaj (IITM), Prof. Ratnesh K. Shukla (IISc)	