

ME@75 Oral Presentation Schedule (June 29th, 2022)

Date	Venue	Time	Session Chairs	Category	P-No.	Title	
Day 1 - 29th June	Main Hall	9:00AM-9:30AM		Inauguration			
		9:30AM-10:00AM	Prof. G. K. Ananthasuresh	Invited talk		Robust aerial flight control and insect-inspired swarming - Prof. Imraan Faruque, MAE, Oklahoma State University	
		10:00AM-10:30AM		Invited talk		Fracture mechanics across small length scales: What, why and how? - Prof. Nagamani Jaya Balil, IITB, Mumbai	
		10:30AM-11:00AM		Tea break			
		11:00AM-11:15AM	Prof. Jaywant Arakeri	Flow	5	Evaluation of the effectiveness of air curtain flows using numerical simulations - Tanmay Agrawal, Narsing K Jha and Vamsi Chalamalla	
		11:15AM-11:30AM			14	Fluid-Structure-Acoustic Interaction Study on Sound Emitted from Constricted Arteries & its Application in Phonoangiographic Diagnosis - Sumant R Morab, Atul Sharma and Janani S Murallidharan	
		11:30AM-11:45AM			18	Large Eddy Simulation Study of a Wind Turbine Sited Behind an Abrupt Surface Roughness Transition - K. Naveen Naik, Kingshuk Mondal and Niranjana S. Ghaisas	
		11:45AM-12:00PM			21	Effect of a Downstream Splitter-Plate versus Cylinder on Flow-Induced Vibration of an Elastically Mounted Cylinder - Abhishek Thakur, Subhasis Rath, Sandip Saha and Atul Sharma	
		12:00PM-12:15PM			40	Lagrangian Anomalies in Active turbulence - Siddhartha Mukherjee, Rahul K. Singh and Samridhi Sankar Ray	
	12:15PM-12:30PM	25			Electrophoretic trajectory of a non-uniformly charged particle in viscoelastic media - Rajnandan Borthakur and Uddipta Ghosh		
		Hall A	11:00AM-11:15AM	Prof. C. S. Jog	Structures	87	Failures in gelatin hydrogels - Anshul Shrivastava, Supreeth M and Namrata Gundiah
	11:15AM-11:30AM		17			Stress Analysis of Circular Machine Component Under In-plane Loading - K.V.N. Surendra and Bijit Kalita	
	11:30AM-11:45AM		19			Indentation on highly cross-linked polymer networks - Manoj Kumar Maurya and Manjesh Kumar Singh	
	11:45AM-12:00PM		20			Study of frequency fluctuations caused by ambient temperature in two dimensional nanoelectromechanical systems - Swapnil More and Akshay Naik	
	12:00PM-12:15PM		24			Continuous analytical solution to Coulomb friction by Harmonic Balance method - B K Karthik, Amar K Gaonkar, V Shrikanth and Naveen M B	
	12:15PM-12:30PM		31			Nonlinear vibration of cyclically symmetric structures with contact - Mohit Kumar and Abhijit Sarkar	
		Hall B	11:00AM-11:15AM	Prof. Pradip Dutta	Heat Transport	170	Integrated trans-critical CO2 refrigeration system for supermarket applications - Pradeep Gupta, Pramod Kumar, Armin Hafner, Hagar Elarga and Simarpreet Singh
	11:15AM-11:30AM		9			Numerical Investigation on heat transfer enhancement and pumping power of a perforated micro-pin fins heat sink with porous media - Deepa Gupta, Probir Saha and Somnath Roy	
	11:30AM-11:45AM		16			Heat transport in rotating Rayleigh-Bénard convection - Vinay Tripathi and Pranav Joshi	
	11:45AM-12:00PM		33			On 3D-Visualisation of Thermal Plumes in Turbulent Convection - Prafulla Shevkar, Baburaj Puthenveetil and Rajeev Reddy Sadu	
	12:00PM-12:15PM		34			Thermosyphon based heat localization strategy for continuous solar vapor generation with sustained efficiency - Debartha Chatterjee and Sameer Khandekar	
	12:15PM-12:30PM		65			Energy efficiency analysis in air assisted impingement jet atomization - Vignesh Kumar D, Anand Tnc and Madan Mohan Avulapati	
		Hall C	11:00AM-11:15AM	Prof. Nagamani Jaya Balila	Manufacturing	12	Oxidation analysis of developed CrAlN and CrAlN-Ag PVD Coating - Sumit Rajput, Soumya Gangopadhyay and Filipe Fernandes
	11:15AM-11:30AM		30			Investigation on sintering mechanism of alumina nano-particles on the basis of molecular dynamics simulation - Indrani Mukherjee and Prosenjit Das	
11:30AM-11:45AM	38		Development of Titanium Aluminide through high energy ball milling - Ilyas Hussain and R.J. Immanuel				
11:45AM-12:00PM	47		Investigation of the thermo-hydraulic transport processes during substrate re-melting in laser powder bed fusion additive manufacturing of AlSi10Mg - Ashish Kumar Mishra and Arvind Kumar				
12:00PM-12:15PM	81		Radiation damage and its effect on the mechanical properties of Li2TiO3 - Deepak Ranjan Sahoo and Narasimhan Swaminathan				
12:15PM-12:30PM	107		Multi-body thermal interaction in particle production via abrasion and their performance for metal AM - Harish Singh Dhami and Koushik Viswanathan				
	Main Hall	2:00PM-2:30PM	Prof. Saptarshi Basu	Invited talk		Deformation driven mass transport during phase change - Prof. Shyamprasad Karagadde, IITB, Mumbai	