



# INCOM 2026

## 3<sup>rd</sup> International Conference on Mechanical Engineering

08 – 10 January, 2026

Department of Mechanical Engineering

Jadavpur University, Kolkata, India



### INCOM 2026: Schedule of Technical Presentations (Online)

Technical Session	Session Description	No.	Track	Paper ID	Paper Title	Presenting Author
TS-O-1 [201A]	Microfluidics, Mixing & Heat Transfer	1	1	68	OPEN FOAM BASED NUMERICAL SIMULATION OF T-SHAPED MICROMIXERS WITH REPEATING THREE CRESCENT AND FOUR CRESCENT OBSTACLE GEOMETRIES	PRIYA RANJAN
		2	1	116	Performance of heat transfer of sinusoidal wavy micro channel with an intelligent regression model	GULSHAN KUMAR
		3	1	136	NUMERICAL INVESTIGATION OF T-SHAPED MICROMIXER WITH SEQUENTIAL OCTAGONAL AND CRESCENT RIBBED OCTAGONAL OBSTACLE USING OPENFOAM	Priya Ranjan
		4	1	146	THERMO-HYDRAULIC PERFORMANCE EVALUATION OF TUBULAR HEAT EXCHANGER EQUIPPED WITH HELICAL COILS IN PRESENCE OF Fe <sub>3</sub> O <sub>4</sub> -WATER NANOFLUID	Shodhan Uday Mayekar
		5	9	179	MACHINE LEARNING PREDICTION OF HEAT TRANSFER IN A PARTIALLY HEATED NANOFLUID-FILLED ENCLOSURE.	Jyotiraditya Roy
		6	1	272	Comparative Analysis of Solar Evacuated Tube Air Heater with Pierced Twisted Tape	T. Karthickmunisamy

Technical Session	Session Description	No.	Track	Paper ID	Paper Title	Presenting Author
TS-O-2 [08/01/26: 02:35 PM- 03:50 PM]	Welding and Mechanical Characterization of Aluminium Alloys	1	5	124	INVESTIGATIONS OF IMPACT STRENGTH IN FRICTION STIR WELDED AA7075-T6 AND A384.0 T-6 ALUMINIUM ALLOYS OF BUTT JOINT	Manikandan N
		2	5	228	MECHANICAL CHARACTERIZATION OF MICROALLOYED 6061Al ALLOYS FOR THE POTENTIAL APPLICATION AS UNDERWATER SHIP HULL	Sanjib Gogoi
		3	5	229	NUMERICAL THERMAL ANALYSIS OF FRICTION STIR WELDED 5052Al ALLOY	ABINASH KASHYAP DEKA
		4	5	230	INVESTIGATING THE EFFECTS OF PROCESS PARAMETES ON TENSILE PROPERTIES OF FRICTION STIR WELDED 5052AL ALLOY	ABINASH KASHYAP DEKA
		5	5	17	Influence of Grain Growth Inhibitors on Microstructure and High-Temperature Tribological Behaviour of ZTA Ceramics	Moumita Sarkar



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TS-O-3 [201A] [08/01/26: 05:10 PM- 06:25 PM]	Computational and Experimental Studies in Mechanical Systems	1	1	1	Emergence of thermoacoustic instabilities based on mutual influence between key variables in turbulent combustion	Somnath De
		2	1	46	DRAG CHARACTERISTICS OF FLAPPING AIRFOIL IN LOW REYNOLDS NUMBER FLOW	Sujan Sarkar
		3	1	164	THERMAL PERFORMANCE OF PCM EMBEDDED IN METAL FOAMS WITH VARYING POROSITIES: AN EXPERIMENTAL STUDY	SUBHRANSU SEKHAR PARIDA
		4	2	207	FINITE ELEMENT SIMULATION OF ENGINE PISTON AND SUBSYSTEM	BIRENDRA PATEL
		5	2	212	DESIGN AND CFD ANALYSIS OF COMPRESSIBLE SUPERSONIC FLOW THROUGH A CONICAL CD NOZZLE FOR HYBRID ROCKET ENGINES	Prajwal Panth
		6	4	233	EXPERIMENTAL STUDY ON CUTTING FORCE AND RAKE SURFACE TEMPERATURE UNDER SUSTAINABLE CONDITION	Sutanu Misra

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TS-O-4 [201B] [08/01/26: 05:10 PM- 06:25 PM]	Miscellaneous Interdisciplinary Engineering Studies	1	5	75	VISCOELASTIC BEHAVIOUR OF METHYL CELLULOSE BASED ALUMINA INKS FOR DIRECT INK WRITING	Pinaki Pal
		2	9	79	LogSyn: A Few-Shot LLM Framework for Structured Insight Extraction from Unstructured General Aviation Maintenance Logs	Biplab Chatterjee
		3	9	83	Reinforcement Learning for Self-Healing Material Systems	Biplab Chatterjee
		4	5	103	WEAR PERFORMANCE OF AZ31-B4C COMPOSITES USING TAGUCHI METHODOLOGY	VIKRAM P. TITARMARE
		5	10	109	Impact of Heart Rate and Lesion Morphology on Coronary Flow and Diagnostic Indices: A Numerical Study	SUPRATIM SAHA
		6	3	198	Investigation of Corrosion resistance and hardness in textile-based epoxy composites for eco-friendly construction materials	Musadik Ahmed



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TS-O-5 [201A] [09/01/26: 03:10 PM- 04:25 PM]	Electro-Hydraulic Systems and Control Optimization	1	6	104	ENHANCED POSITION TRACKING OF ELECTRO-HYDRAULIC ACTUATOR USING CASCADE PID CONTROL	GULSHAN KUMAR
		2	6	111	Design and Analysis of Variable Displacement Radial-Piston Pump under With and Without Silencing Groove Valve Plate	Nimai Pada Mandal
		3	1	148	NUMERICAL AND EXPERIMENTAL STUDIES FOR LIQUID METAL PUMPING IN SMALL SCALE GAS-LIFT PUMP	Debrup Paul
		4	6	159	OPTIMAL PID CONTROLLER DESIGN FOR LVAD BASED ON LINEAR OPTIMIZATION METHOD	Kaustab Saha

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TS-O-6 [201B] [09/01/26: 03:10 PM- 04:25 PM]	Sustainable and Intelligent Industrial Systems	1	4	67	INTELLIGENT PRODUCTIVITY-INTEGRATED INVENTORY OPTIMIZATION FRAMEWORK FOR MEDIUM-SCALE INDUSTRIES	S. Hariharan
		2	7	96	SUSTAINABLE OPTIMIZATION OF INDUSTRIAL FLUID DISPERSION SYSTEMS USING INTEGRATED VALUE ENGINEERING, SIMULATION, AND LIFE CYCLE ASSESSMENT FRAMEWORKS	K. Sreenu Babu
		3	3	101	STRATEGIC INNOVATION MODEL FOR BRIDGING RESEARCH & DEVELOPMENT, MANAGEMENT AND PUBLIC POLICY IN NANOTECHNOLOGY ENGINEERING	A Abilasha
		4	4	102	SMART LEAN EXECUTION AND ENHANCEMENT TECHNIQUE: A NOVEL APPROACH FOR REAL-TIME OPTIMIZATION AND WASTE MINIMIZATION IN TEXTILE MANUFACTURING	S. Saravanan
		5	7	264	MIXED MECHANISM REDUCTION KINETICS STUDY OF TUNGSTEN MINE TAILINGS	Santosh Khan



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TS-O-7 [201A] [09/01/26: 06:15 PM- 07:30 PM]	Advanced Manufacturing & Process Optimization	1	5	160	QUANTITATIVE ANALYSIS OF ROUGHNESS EVOLUTION OF ADDITIVE MANUFACTURED SS316L USING DUAL-STAGE ELECTROPOLISHING (DSEP)	Ravi Prakash
		2	5	161	Effect of texture on recoater for enhanced powder layer quality for powder bed fusion process	Aakash Tyagi
		3	5	162	EXPERIMENTAL ANALYSIS OF PULSED ECDM PARAMETERS FOR MICROMACHINING BOROSILICATE GLASS	Abhishek Das
		4	4	163	AI-Enhanced Experimental Study of Underwater Fiber Laser Processing for Micro-Channelling in PMMA	Sayantana Sinha Biswas
		5	10	171	HIGH COMPRESSION STRENGTH STRUCTURES USING A TSP BASED CONTINUOUS TOOLPATH	Kanak Jindal

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TS-O-8 [201B] [09/01/26: 06:15 PM- 07:30 PM]	Sustainable Energy Systems and Computational Modelling	1	10	108	Influence of Hematocrit and Stenosis Morphology on Blood Flow in Coronary Arteries: A Computational Study	Toshali Mandal
		2	7	145	Prediction and Reduction of a Building's Carbon Footprint	Chitta Sahana
		3	7	191	ASSESSING PEANUT BIODIESEL AS A SUSTAINABLE FUEL: AN EXPERIMENTAL AND NUMERICAL STUDY ON DIESEL ENGINE EMISSIONS	Dr. Jayashree Nayak
		4	7	221	Catalytic Co-Pyrolysis of Waste Tires and Sugarcane Bagasse for Enhanced Bio-Oil Production Using Zeolite ZSM-5 and Calcium Oxide	Nadirul Zahid Shrabon
		5	10	268	APPLICATION OF ANN SIMULATION ON THE PERFORMANCE OF SOLAR CAVITY COLLECTOR	Dr. LAKSHMIPATHY. B