



GT INDIA 2025 CONFERENCE

MR G.03 (Gr Floor)

Date	Session	Time	Sub Track	Paper No.	Title
Day 1: 11 September 2025	Session 1	8:30-8:40	GT 1 - Comoressors, FAns & Pumps	Welcome Address by Ms Hiral Shah (Track Chair)	
		8:40-9:00		158280	The Effect of Exit Guide Vane Fillet Radius on the Aerodynamic Performance of a Centrifugal Compressor Stage
		9:00-9:20		160594	Aerodynamic Performance and Stability of a Transonic Axial Compressor With Blade Tip Casing Treatment Slots
		9:20-9:40		159168	Impact of Inlet Distortion and Surface Roughness on Near-Stall Performance of a Transonic Axial Flow Compressor
		9:40-10:00		159799	Leakage Prediction Model for See-Through Radial Labyrinth Seal
		10:00-10:20		159852	Case Studies on Transonic Compressors Analysed in a Graduate Course Using MULTALL
		10:20-10:30		Session Summary	
	Common Plenary Sessions & Lunch				
	Session 2	2:10-2:30	GT3 - Heat Transfer	160328	Impact of Sweeping Jet Inclination Angles on Film Cooling Performance on High-Pressure Turbine Nozzle Guide Vanes
		2:30-2:50		160318	Enhancing Film Cooling Performance in Gas Turbines: The Impact of Sweeping Jets and Row Spacing
		2:50-3:10		160477	Numerical Investigation on Damage Scenarios of Vane Trailing Edge Using Thermo-Fluid-Structural Analysis
		3:10-3:30		161197	Numerical Analysis of Film Cooling Flow Over Flat Plate With Convective Heat Transfer Conditions
		3:30-3:50		161132	Effects of Nanoparticle Shapes on Flow and Heat Transfer of Alumina-Water Nanofluid Between Two Stretchable Rotating Disks Using a Spectral Technique
		3:50-4:00	Session Summary		
	Coffee Break				

	Session 3	4:40-5:00	GT 1 - Compressors, FAns & Pumps GT3 - Heat Transfer	158467	Generation of Compressor Envelop with Optimum Radial and Axial Clearance for Small Gas Turbine Engines
		5:00-5:20		160742	Effect of Nose Cone Geometry on the Performance of Gas Turbines
		5:20-5:40		157696	Method to Calibrate Secondary Flow System Model and Optimize Tolerance in Gas Turbine
		5:40-6:00		161612	Optimized Winglet Design for Blade Tip to Counter Vortex Induced Thermal Gradient for Improved Component Life

Day 2: 12 September 2025		8:30-8:40		Opening Address by Group Chair - Mr KaliCharan Nayak	
	Session 1	8:40-9:00	GT4 - Combustion, Fuels and Emissions	160118	Optimizing Hydrogen-Enriched Combustion: The Performance of a 3D-Printed Triple-Swirl Burner With Stratified and Premixed Injection Strategies
		9:00-9:20		160440	Impact of Pilot Stage Stratification on Flame Stability in Swirl-Stabilized Combustion Systems
		9:20-9:40		158449	Non-Reacting Near-Nozzle Spray Characteristics of Jet Fuel Blends at Elevated Ambient Conditions
		9:40-10:00		159712	Spray Characteristics and Flow Topologies of High-Shear Radially Staged Multi-Swirl Injector
		10:00-10:20		161438	Effect of Hydrogen Enrichment and Modeling Approaches on Combustion Performance and Emissions in a Multi-Swirl Injector
		10:20-10:30		Session Summary	
		Common Plenary Sessions & Lunch			
	Session 2	2:10-2:30	GT5 - Structure and Dynamics	159402	Hard Lines Weld Assessment Under Combined Loading Using Finite Element Analysis
		2:30-2:50		159731	Thermo-Hydrodynamic Analysis and Optimization of Oil-Lubricated Straight Micro-Grooved Journal Bearing
		2:50-3:10		161535	Macro-Level Analysis of Ti-Sic Metal Matrix Composite Ring Based on Finite Element Method
		3:10-3:30		161361	Reliable Prediction of Under Platform Damping for Turbine Blade at Variable Operating Condition
		3:30-4:00		159408	Robust Design of Gas Turbine Engine Accessory Fluid System
	Coffee Break				
	Session 3	4:40-5:00	GT 4 & 5	161217	Effect of Vortex Shedding Frequency on Global Flame Structure
		5:00-5:20		171828	Large Eddy Simulation of Trapped Vortex Combustor: Effect of Hydrogen Blending
		5:20-5:40		161057	Modeling and Dynamic Characteristics Analysis of an Active Squeeze Film Damper for Aero-Engine Applications
		5:40-6:00		162134	Experimental Investigation of Aerodynamics Investigation of Conical Nose Cone With Dimples Using Low Speed Conditions

Day 3: 13 September 2025	Session 1	8:40-9:00	GT2 - Turbines	160300	Protection System Against Super Critical CO2 Corrosion for Steel Casings of Turbo Expander
		9:00-9:20		160426	Case Studies on High Pressure and Low Pressure Turbines Analysed in a Graduate Course Using Multall
		9:20-9:40		161008	A Physics Based Analytical Model for Estimation of Profile Losses in Turbine Cascades
		9:40-10:00		161047	The Effect of Clearance Flow on Variable Area Nozzle Vane
	Common Plenary Sessions & Lunch				
	Session 2	11:10-11:30	GT 6 & GT 7	159959	Assessing the Economic and Operational Advantages of Evaporative Cooling in Combined Cycle Power Plants
		11:30-11:50		161226	Analysis of the Effects of Online and Offline Washing on Degradation and Life Cycle Costs in Gas Turbine Combined Cycle Power Plants: A Comparative Study
		11:50-12:10		159837	Conceptualization and Implementation of Integrated Load Sharing Control for Two Compressor Stations
		12:10-12:30		159163	Control Strategies in Supercritical Carbon Dioxide Brayton Cycles
		12:30-12:50		161389	Cycle Analysis of Futuristic RDE-Based Small Turbojet and Turboprop Engines for UAVs
		12.50-1.00		Session Summary	
	Coffee Break				
	Session 3	2:10-2:30	GT9 & GT 6	160465	Fault Diagnosis of Dual Rotor Multi Bearing System Using Transfer Learning
		2:30-2:50		161778	Gas Turbine Thermal Digital Twin: Developing a Data Engineering Framework
		2:50-3:10		161958	Rotor Stress Prediction Using Convolutional Neural Network
		3:10-3:30		160799	A Theoretical Study on the Gasification of Plastic Wastes for Electricity Generation Using a Gas Turbine Cycle
		3:30-3:50		160384	Nozzle Flow Separation in Thrust Optimized Contour Bell Nozzle