Parallel Sessions (ICVAM – 2026)

Important Locations:

GJLT: Golden Jubilee Lecture Theatre (https://maps.app.goo.gl/SCrKfHZnf6vafW1D6)

TEXMiN; https://maps.app.goo.gl/1sBzfcwSQAu8m2zk6

IIT(ISM) Main Gate: https://maps.app.goo.gl/eYTKQ5yGWfbnLMsaA

Mechanical Engineering Department: https://maps.app.goo.gl/HFfhBAJrvs7YgAp4A

Day : D, Session : S, Group : G & Online : O

Note: Parallel Session : Day-1 and Day-2 (@ TEXMin), and Day-3 (@ Mechanical Engineering Department)

D1S1G1 (30.10.26 / 3.00 PM– 4.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. Sandipan Kumar Das)	Speaker	Institute	Primary Area
1	105	Bloch Dispersion and Band-Gap Characteristics of a C-Shaped Helmholtz Resonator in a Periodic Acoustic Metamaterial	Umang Tiwari	IIT Delhi	MMM
2	34	Experimental demonstration of shock-induced tipping using a prototypical laminar thermoacoustic system	Bhadra Sreelatha	Indian Institute of Technology Madras	DA/TA
3	39	Degenerate Hopf bifurcation as a precursor to subcritical Hopf bifurcations in a thermoacoustic system	Sandra James Thomas	Indian Institute of Technology Madras	DA/TA
4	11	Enhancement of Overall Sound Pressure Level inside Reverberation Chamber for Reverberant Field Acoustic Testing of Spacecraft	Rahul Kumar Chaurasia	U R RAO Satellite Centre, ISRO	AA
5	14	Frequency Domain Numerical Scheme for Nonlinear **Wave Propagation** in Rigid Waveguides with Mean Flow	Manish Dwivedi	Indian Institute of Science, Bengaluru	DA/TA

D1S1G2 (30.10.26 / 3.00 PM– 4.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. P.K. Mahato)	Speaker	Institute	Primary Area
1	19	Conceptual Design and Multidisciplinary Analysis of a Multilayer Composite Envelope for a Tethered Surveillance Aerostat	Harshit Kathiriya	Sardar Vallabhbhai Patel Institute of Technology	SMD
2	30	A Semi-Analytical Solution for Post-buckling Behaviour of Thin Plates Undergoing Large Deformation	Anjumol K S	LPSC Trivandrum	SMD
3	20	Influence of Printing Orientation and Cyclic Deformation on the LPBFed SS316L Yield Surface	Ved Prakash Dubey	IFTR, Polish Acad. of Sci.	EM
4	86	Programming Snapping Pathways in a Multistable Two-Bar Elastic Element	Samanvay Anand	Indian Institute of Science	MMM
5	88	A Stress–Velocity Transfer Function-Based Analytical Framework for Predicting Fatigue-Safe Vibration Limits of Refrigerant-Carrying Mild Steel Tubing under Variable Frequency Compressor Excitation	Mohan Kumar D W	Blue Star Limited	SV

D2S1G1 (31.10.26 / 3.00 PM– 4.00 PM)

	Paper ID	Paper Title (Session Chair: Prof. Sanjoy Ghosal)	Speaker	Institute	Primary Area
1	60	Phase speeds of prestressed nonlinear solids	C. Chandraprakash	IIT Kanpur	WPEM
2	24	Prediction of the Sound Transmission Loss of an Unbaffled Perforated Plate	Hemanta Dikshit	Indian Institute of Science, Bengaluru	SA
3	46	Study on the Wave Dispersion of Thick Cylindrical Meta Structure for Aerial Applications	Biswajit Bharat	Indian institute of technology Kharagpur	SA
4	51	A Hybrid Multi-Slit Labyrinthine Acoustic Metamaterial for Broadband Sound Absorption	Kunal Gupta	Indian Institute of Technology , Dharwad	SA
5	15	Experimental Study on Direct Field **Acoustic** Test Control Spectrum with Multi Input Single Output and Multi Input Multi Output Control Strategies	Paandu Thalla	U R Rao Satellite Centre, ISRO	DC

D2S1G2 (31.10.26 / 3.00 PM– 4.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. R.R. Das)	Speaker	Institute	Primary Area
1	17	Band Gap Maximization of a Timoshenko Beam using the Method of Moving Asymptotes	Umashankar Prajapati	IIT Delhi	MMM
2	31	Analytical and numerical investigation of a monoatomic and a diatomic spring-mass chain metamaterial	Pradhuman Kumar Ray	IIT Delhi	MMM
3	45	Broadband Low-Frequency HRSM Acoustic Absorber	Yugansh Maheshwari	BITS Pilani	MMM
4	47	Effect of fluid-coupling on the band-gap of a thick hexagonal metastructure	Vikash kumar	Indian Institute of Technology Kharagpur	MMM
5	82	Numerical Investigation of an S-Shaped Auxetic Structure with a Central Circular Node under Compressive Loading	Tripurari	Indian Institute of Technology Ropar	MMM

D2S2G1 (31.10.26 / 4.30 PM– 5.30 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. Antarip	Speaker	Institute	Primary Area
1	101	Acoustic Performance of Reactive Mufflers Operating with R-134a: A Transfer Matrix Method Study	Mohan Kumar D W	Blue Star Limited	DA/TA
2	89	Investigating the Influence of Accumulator Jacket on Vibration Damping Performance of Accumulator	Siddharth Nayak	Blue Star Limited	DA/TA
3	93	Fully Non-Contact **Acoustic** Localization of Barely Visible Impact Damage in CFRP Laminate Using the Concept of Local Defect Resonance	Manish Sharma	NIT Rourkela	CM
4	143	Directed **Infrasonic** Beamforming: Experimental Characterization, Numerical analysis and Digital Twin Modelling	Dr. Savita Gaur	DIPAS, DRDO	WPEM
5	18	**Vibroacoustic** Analysis of 3D-Printed Composite Panels under Thermal Environment	Vivek P	NIT Tiruchirappalli	CM

D2S2G2 (31.10.26 / 4.30 PM– 5.30 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. Satyabrata Sahoo)	Speaker	Institute	Primary Area
1	114	A comparison of the homotopy perturbation method and an analytical series solution for thermal stresses in an annular fin with variable thermal conductivity	Muzamil Hassan Dar	IIT(ISM) Dhanbad	SMD
2	110	Effect of stacking sequence and fiber hybridization on the tensile strength, surface hardness, and water absorption of seven-layer jute–glass fibre-reinforced epoxy laminates	Bihar Gaurav	Shri Phanishwar Nath Renu Engineering College Araria	CM
3	37	Response Spectrum Analysis of an Elastic Plate Subjected to a Ball Impact for Obtaining the Peak Responses	Sai Krishna Menon	Vellore Institute of Technology, Vellore	SMD
4	120	Design and Performance Evaluation of Damage-Tolerant Tubular T-Joint with Doubler Plate and CFRP Wrapping	Krishna Kumar Verma	IIT(ISM) Dhanbad	SMD
5	07	LIFE-Bench: A Lifecycle Integrated Framework for Engineering Benchmarking of **CAE Simulation** Software	Utkarsh Chhibber	Cadence	Miscellaneous

D3S1G1 (01.11.26 / 12.00 Noon– 1.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Dr. Savita Gaur)	Speaker	Institute	Primary Area
1	33	Acoustic Enclosure for Noise Attenuation of the Air Pump	Tahseen Alam	National Institute of Technology Jamshedpur	SPMS
2	36	Design Assessment and Computational Mechano-**Biological** Evaluation of TPMS-Schwarz P, Strut Cubic and Honeycomb Scaffolds Integrated with Haversian System	Sohini Nayak	GKCIET, Malda	Miscellaneous
3	79	A Comparative Study of Vibration Signature of Lubricated and Unlubricated Pin on-Disc Surface	Abhishek Kumar	BIT Sindri	SV
4	139	Robust control of a power hydraulic system through system inversion under varying load and parametric uncertainty	Nitish Kumar Sah	IIT(ISM) Dhanbad	DC
5	130	A dynamic stiffness method for free vibration of moderately thick E-FGM plate	Amin Ahmad	IIT(ISM) Dhanbad	SV

D3S1G2 (01.11.26 / 12.00 Noon– 1.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. K.K. Singh)	Speaker	Institute	Primary Area
1	115	Microstructure Correlation of Inconel 82 Superalloy-Based Multilayer Deposition in Robotic Wire Arc Additive Manufacturing	Raushan Kumar	IIT(ISM) Dhanbad	AMPM
2	117	Influence of Waveform-Controlled GMAW Modes (STT, RapidArc and Pulsed GMAW) on Bead Geometry and Microstructure of Inconel 82 Single-Track Deposits	Peeraj Mazumder	IIT(ISM) Dhanbad	AMPM
3	119	Fabrication and Characterization of ER70S-2 Steel Using Wire Arc Additive Manufacturing	Aditya Kumar	BIT Sindri	AMPM
4	134	Microstructure Evolution Across the Dissimilar Interfaces in WA-DED SS316L-IN718-NAB Trimetallic Components	Akanksha Prajapati	IIT(ISM) Dhanbad	AMPM
5	123	Effect of Bond-line Thickness on the Mode-I **Fracture** Response of Steel-Adhesive Double Cantilever Beam Joints through **Finite Element Analysis**	Deep Chatterjee	IIT(ISM) Dhanbad	Miscellaneous

D3S2G1 (01.11.26 / 3.00 PM – 4.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Dr. Shubham Kumar)	Speaker	Institute	Primary Area
1	108	Design, Fabrication and Experimental Evaluation of an Adjustable Clamping Fixture for Friction Stir Welding on a Vertical Milling Machine	Kumar Shambhav	IIT(ISM) Dhanbad	EM
2	90	Numerical and Experimental Investigation of the Structural Response of a Deep Freezer Under Drop Impact Loading	Siddharth Nayak	Blue Star Limited	EM
3	97	Wear Effects on the Aerodynamic Performance and Dynamic Characteristics of a Self-Acting Gas Journal Bearing	Sandeep Bhoi	IIT(ISM) Dhanbad	AA
4	84	Intelligent Gearbox Fault Diagnosis Using MSCNN-CBAM and CWT Scalograms: A Comparative Study of Signal Representations	Chandan Pandey	IIT(ISM) Dhanbad	FDP
5	141	Aerodynamic Performance Enhancement of Modified Savonius Wind Turbines via Kriging and Grey Wolf Optimization	Yashwant Singh	IIT(ISM) Dhanbad	AA

D3S2G2 (01.11.26 / 3.00 PM – 4.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. S. Azam)	Speaker	Institute	Primary Area
1	42	A Deep Learning Model for Identification of Defects in Variable-Speed Bearing Based on Wavelet Scalograms & CNN-LSTM Networks	Kunal Kumar	BIT Sindri	AI-ML
2	44	A Hybrid CNN-LSTM Transfer Learning Network for Bearing Fault Detection under Multiple Working Conditions	Ram Bilas Das	IIT(ISM) Dhanbad	AI-ML
3	95	Experimental Performance Analysis for a VCR Engine Using Biodiesel (Karanja Oil)	Vivek Kumar Mahato	BIT Sindri	BMM
4	118	Failure and Fracture Analysis of Surface-Flawed Rock Walls under Compression: Finite Element and Experimental Validation Using PMMA	Devashish Das	IIT(ISM) Dhanbad	SMD
5	121	Adhesion-Fracture-Resistant Epoxy Grouting Design for Enhanced Pullout Strength of Rock Bolts	Ruhul Amin	IIT(ISM) Dhanbad	SMD

D3S2G3 (01.11.26 / 3.00 PM – 4.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. K.P. Ajit)	Speaker	Institute	Primary Area
1	80	Finite Element Investigation of Mode-I Delamination in Basalt Epoxy **Laminates** A Comparison of CZM and VCCT	Rishant	IIT(ISM) Dhanbad	CM
2	81	Numerical Study of Low-Velocity Impact-Induced Delamination in BFRP **Laminates** Under Varying Impact Energy Using Cohesive Zone Modelling	Kshitiz Shukla	IIT(ISM) Dhanbad	CM
3	83	Comparative Evaluation of Low-Velocity Impact Resistance and Progressive Damage Evolution in Sustainable BFRP vs. Conventional CFRP **Composite** Sandwich Panels.	Shubham Kamble	IIT(ISM) Dhanbad	CM
4	104	Molecular Dynamics Simulation-Guided Interpretation of the Experimental Mechanical and Tribological Behaviour of MWCNT/GNP-Reinforced UHMWPE for Biomedical Applications	Ritisundar Rout	IIT(ISM) Dhanbad	CM
5	145	Assessment of Blast-Induced Ground Vibrations and Their Impact on Structures in the Vicinity of Mining Areas	Sumit Talapelli	IIT(ISM) Dhanbad	

D3S2G4 (01.11.26 / 3.00 PM – 4.00 PM)

Sl No	Paper ID	Paper Title (Session Chair: Prof. Sarthak Singh)	Speaker	Institute	Primary Area
1	116	EMD simulation study to estimate thermal conductivity of UHMWPE-Graphene-magnesium-silane hybrid nanocomposite for medical applications	Dhananjay Tiwari	IIT(ISM) Dhanbad	CM
2	122	Microstructural Evolution & Mechanical Behaviour of Graphene Reinforced Aluminium Metal Matrix Nanocomposites Synthesized via Powder Metallurgy	Anirban Mondal	IIT(ISM) Dhanbad	CM
3	129	Micromechanical RVE Analysis of Banana and Roselle Fibre-Reinforced Epoxy Composites: Effect of Fibre Volume Fraction and Orientation	Raj Kumar	IIT(ISM) Dhanbad	CM
4	111	Microstructural and mechanical behavior analysis of magnesium matrix composite reinforced with nano-Cr_2O_3 particles.	Ashutosh Kumar	IIT(ISM) Dhanbad	CM
5	144	Erosion-Corrosion Behavior in Iron-Ore Slurry Pipelines and Its Mitigation by Phosphate Coating	Balendra Sah	IIT(ISM) Dhanbad	

D3O1G1 (Online 9-10 AM)

Sl No	Paper ID	Paper Title (Prof. Jayanta Das / Mrs. Ankita, USA)	Speaker	Institute	Primary Area
1	102	Effect of Laminate Stacking Sequence on the Static and Dynamic Performance of CFRP Aircraft Brackets	G Jagadesh	Institute of Aeronautical Engineering Hyderabad	CM
2	103	Design and analysis of dual-morphology surfaces for boundary layer control	N Sri Tejaswini	Institute of Aeronautical Engineering Hyderabad	AA
3	32	A Quality-Aware Explainable Ensemble Framework for Automated Cervical Cancer Detection and Classification Using ResNet50 and EfficientNetB0	Sapna Kumari	BIT Sindri	AI-ML
4	91	Aeroacoustic Noise Reduction in Aircraft Landing Gear Through Drag Enhancement with Vibration and Structural Analysis	Konda Naga Sathvika	Ins. of Aeronautical Engg. Hyderabad	AA
5	10	Static and Dynamic Behaviour of a Quasi Zero Stiffness (QZS) Metastructure Under Low Frequency Conditions	Jitendra Kumar Dixit	Coal india Ltd.	DC

D3O1G2 (Online 9-10 AM)

Sl No	Paper ID	Paper Title (Prof. ********)	Speaker	Institute	Primary Area
1	08	Design and Additive Manufacturing of Re-Entrant Auxetic Metamaterials for Biomedical Applications	Pratik Kumar Shaw	Curtin University and IIT(ISM) Dhanbad	BMM
2	21	Fault Diagnosis of Dynamical Systems Using Physics-Guided Neural Networks with Limited Data	Vikash Kumar	BIT SINDRI	FDP
3	16	Modelling And Control of High Speed Tilting Train using the Concept of Inverted Pendulum	MD Ejaz Ahmad	BIT SINDRI	DC
4	131	Double-Tuning of Opposite-Ends Rotated-Offset Extended Inlet-Outlet Cylindrical Mufflers Using Iteratively Determined Tune-Correction Lengths	Gaurav Sharma	IIT Indore	
5					

Valedictory Function
(5.00 PM – 6.00 PM)
High Tea
End of Conference