

ORAL SESSIONS OF PReMI 2025				
December 12, 2025 (11:00 - 13:00 IST), Venue: LHC 410				
Oral Session T1				
Session Chair: Prof. Gaurav Bhatnagar, Prof. Malay Bhattacharyya				
Session Name	Time Slot	Tracks	Paper Title	Paper ID
1A	11:00 - 11:20	Artificial Intelligence (1)	An Agentic AI Framework for Interpretive Inductive Analysis of Multimodal Clinical Interviews: Leveraging Multi-Agent and Bio-Medical Knowledge Graph	35
1B	11:20 - 11:40		FQ-MinMax: Federated Q-Learning with Minimal Communication and Maximal Efficiency	37
1C	11:40 - 12:00		Score-Aware Evolutionary Knowledge Distillation via Multi-Teacher Supervision and Peer Collaboration	98
1D	12:00 - 12:20		TEPEN: Towards an Ensemble Model for Pixel-based Embodied Navigation	197
1E	12:20 - 12:40		Trajectory Length Reduction in Monte Carlo Reinforcement Learning	257
1F	12:40 - 13:00		Progressive Reasoning Under Uncertainty: A Three-Phase Approach to Automated Minesweeper Solving	261
December 12, 2025 (11:00 - 13:00 IST), Venue: LHC 416				
Oral Session T2				
Session Chair: Prof. Nishchal Verma, Prof. Kaushik Saha				
Session Name	Time Slot	Tracks	Paper Title	Paper ID
2A	11:00 - 11:20	Artificial Intelligence (2)	Integrating Crowd-Sourced Information for Agentic Multi-Platform Fake News Detection	294
2B	11:20 - 11:40		An Adaptive Deep Learning-based Intrusion Detection System for IoT Networks	469
2C	11:40 - 12:00		Chameleon2++: An Efficient and Scalable Variant Of Chameleon Clustering	580
2D	12:00 - 12:20		Quantum Enhanced LSTM for Day Level Parcel Count Forecasting	218
2E	12:20 - 12:40		Hybrid 3D CNN with Residual Connections for Hyperspectral Image Classification	569
2F	12:40 - 13:00		Contrastive Learning Representaion in 3D pointcoluds	587
December 12, 2025 (11:00 - 13:00 IST), Venue: LHC 418				
Oral Session T3				
Session Chair: Prof. Debarka Sengupta, Dr. Ekta Srivastava				
Session Name	Time Slot	Tracks	Paper Title	Paper ID
3A	11:00 - 11:20	Signal AI	Affective Profiling in Indian Speech Using Analytic Signal-Matched Filter Bank Features and Valence–Arousal–Dominance Mapping	25
3B	11:20 - 11:40		Evaluating Pretrained General-Purpose Audio Representations for Music Genre Classification	512
3C	11:40 - 12:00		Adaptive Multi-Scale Speaker Diarization on DISPLACE 2025 Challenge Task	537
3D	12:00 - 12:20		LaghuVani	544
3E	12:20 - 12:40		Audio Deepfake Detection using Fusion of Fractal and MFCCs Features	606
3F	12:40 - 13:00		Efficient Plant Root Segmentation Using Sparse Supervision and Consistency Regularization	599
December 12, 2025 (11:00 - 13:00 IST), Venue: Seminar Hall				
Oral Session T4				
Session Chair: Prof. Asif Ekbal, Dr. Brojeshwar Bhowmick				
Session Name	Time Slot	Tracks	Paper Title	Paper ID
4A	11:00 - 11:20	AI Applications	SLED-GAN: A Disease-Centric Conditional GAN for Synthetic Plant Leaf Disease Image Generation and Classification Enhancement	47
4B	11:20 - 11:40		Autonomic Emotion Signature: A Novel Stress Measurement Framework Assisting Human Behavioural Pattern Analysis	75
4C	11:40 - 12:00		Breast Cancer Subtyping with HyperCLSA: A Hypergraph Contrastive Learning Pipeline for Multi-Omics Data Integration	111
4D	12:00 - 12:20		Investigating Cultural Bias: A Comparative Study of Large Language Models	339

4E	12:20 - 12:40		WISE-Blend: A Hybrid Ensemble Framework for Interpretable Fuzzy Time Series Forecasting	443
4F	12:40 - 13:00		A Lightweight Hybrid Convolutional Kolmogorov–Arnold Network for Efficient Image Classification on CIFAR-10	614
<b>December 13, 2025 (11:00 - 13:00 IST), Venue: LHC 410</b>				
<b>Oral Session T5</b>				
<b>Session Chair: Prof. Lipika Dey, Prof. Asif Ekbal</b>				
Session Name	Time Slot	Tracks	Paper Title	Paper ID
5A	11:00 - 11:20	Natural Language Processing	FLARE: Enhancing Few-Shot Missing Triple Prediction via Attention-Guided Subgraph Reasoning	61
5B	11:20 - 11:40		gDSA: A Lightweight Framework for Zero-Shot Stance Detection via Direct Stance Assignment and gMLP	63
5C	11:40 - 12:00		Natural Language Processing	95
5D	12:00 - 12:20		CustomsBERT: A Production-Ready Transformer Framework with Hybrid Clustering for Automated HS Code Classification and Real-Time Validation in Indirect Tax administration and Trade Assistance Systems.	222
5E	12:20 - 12:40		MED-KG-LLM : A Modular Pipeline for Knowledge Graph–Augmented Medical Question Answering on Clinical Data	515
5F	12:40 - 13:00		NEIC: Indian News Entity Identification and Characterization Model for NSE Stock Price Prediction Using Tiny LLMs	559
<b>December 13, 2025 (11:00 - 13:00 IST), Venue: LHC 416</b>				
<b>Oral Session T6</b>				
<b>Session Chair: Prof. Malay Bhattacharyya, Prof. Gaurav Bhatnagar</b>				
Session Name	Time Slot	Tracks	Paper Title	Paper ID
6A	11:00 - 11:20	Computer Vision	Unified Egocentric Dual-Hand Mesh Reconstruction and Action Recognition from Monocular RGB	243
6B	11:20 - 11:40		Hybrid Region-Sensitive Low-Light Image Enhancement and Object Detection	265
6C	11:40 - 12:00		Nritya3D: Monocular Video-Driven Expressive 3D Human Mesh Reconstruction	290
6D	12:00 - 12:20		Low-Light RAW Image Enhancement via Intrinsic Decomposition Towards a Neural ISP	298
6E	12:20 - 12:40		Pose and Occlusion Invariant 3D Facial Recognition using Lightweight CNN and Dual-Stage Transfer Learning	380
6F	12:40 - 13:00		LLM-Guided Visual Reasoning for Scene-Aware Pedestrian Intention Prediction	411
<b>December 13, 2025 (11:00 - 13:00 IST), Venue: LHC 418</b>				
<b>Oral Session T7</b>				
<b>Session Chair: Dr. Raghav, Prof. Nishchal Verma</b>				
Session Name	Time Slot	Tracks	Paper Title	Paper ID
7A	11:00 - 11:20	Medical Imaging & Informatics	MCAF-SkinNet : Multi-Modal Cross-Attention Fusion for Skin Disease Classification using Vision Models and Dermatology-Specific Embeddings	317
7B	11:20 - 11:40		EcoMamba-Net: A Parameter-Efficient Architecture for Medical Image Segmentation	429
7C	11:40 - 12:00		Classification with Auxiliary Representation Learning for Detecting Breast Cancer	448
7D	12:00 - 12:20		FISTA-GAN: An Interpretable Cosine-Decayed GAN for Fast Compressed-Sensing MRI	493
7E	12:20 - 12:40		FarmaFriend: An Intelligent End-to-End Solution for Diagnosing Plant Diseases on Handheld Devices	19
7F	12:40 - 13:00		EmSVR-BACE: LLM-Based Molecular Embedding for Predicting BACE1 Inhibitors in Alzheimer's Therapy	216
<b>December 14, 2025 (11:00 - 13:00 IST), Venue: LHC 410</b>				
<b>Oral Session T8</b>				
<b>Session Chair: Dr. Badri Narayan Subudhi, Prof. Asif Ekbal</b>				

Session Name	Time Slot	Tracks	Paper Title	Paper ID
8A	11:00 - 11:20	Pattern Recognition	Dynamic Weighted Selective Ensemble Classifier for Radiomics-Based Early Response Prediction in 18F-FDG PET/CT Breast Cancer Imaging	42
8B	11:20 - 11:40		Adaptive Weighted Granular Ball Framework for Robust and Efficient Support Vector Regression	353
8C	11:40 - 12:00		A Hybrid Detectron2 and Graph Attention Network for Sleep Posture Classification using Images	359
8D	12:00 - 12:20		Chemically Informed Transformer Architecture for VOC Identification from Multi-Sensor Time-Series Data	516
8E	12:20 - 12:40		A Novel Anti-Sample Generation Technique for Effective Machine Unlearning	536

**December 14, 2025 (11:00 - 13:00 IST), Venue: LHC 416**

**Oral Session T9**

**Session Chair: Dr. Ranjeet Kumar Rout, Prof. Gaurav Bhatnagar**

Session Name	Time Slot	Tracks	Paper Title	Paper ID
9A	11:00 - 11:20	Learning Systems	From Specialists to Generalist Soft Robots: Evolving a Single Morphology and Controller Across Tasks	283
9B	11:20 - 11:40		Extensive Benchmarking of Metaheuristics using Real-World Constrained Multi-objective Optimization Problems	435
9C	11:40 - 12:00		Granular Computing based Fuzzy Classifier For Tensor Data Classification	523
9D	12:00 - 12:20		Optimizing TinyML Models for Bird Call Recognition via Multi-Objective Bayesian Search and Knowledge Distillation	176
9E	12:20 - 12:40		Deploying Compact Image Classifier on Edge Device for Real Time Pearl Millet Disease Detection	404
9F	12:40 - 13:00		A Hybrid Bayesian-Monte Carlo approach for Inventory Management	31

**December 14, 2025 (11:00 - 13:00 IST), Venue: LHC 418**

**Oral Session T10**

**Session Chair: Prof. B. K. Panigrahi, Prof. Sandeep Kumar**

Session Name	Time Slot	Tracks	Paper Title	Paper ID
10A	11:00 - 11:20	Intelligent Signal Processing Applications	Attention-Guided Few-Shot Prototypical Network for ICU Abnormal EEG Pattern Recognition	529
10B	11:20 - 11:40		Analysis of Spatial Information Processing in Human Vision using Information Geometry	531
10C	11:40 - 12:00		A hard thresholding based deep unrolled network for nonnegative sparse inverse problems	347
10D	12:00 - 12:20		Privacy-Preserving Biometric Framework for Secure NFT Ownership	514
10E	12:20 - 12:40		Designing Lightweight & Privacy-Preserving IDS Applying Federated Learning Technique	525
10F	12:40 - 13:00		AerialNet: Monocular depth estimation architecture for UAV aerial images using ViT & GraphSAGE	205