11th International Conference on Signal Processing & Intelligent Systems Mazandaran University of Science and Technology, December 24-25, 2025

ICSPIS2025

Location	Conference Program	Time	Date
Main Hall	Registration	7:30-8:00	Wednesday 24 Dec 2025
	Conference Opening	8:00-8:10	
	Conference chairman speech	8:10-8:20	
	Keynote Speaker (Dr. Abhari)	8:25-09:00	
	Conference scientific chair speech	09:00-09:10	
	Coffee Break	09:10-10:00	
	Keynote Speaker(Dr. Hosseini)	10:00-11:00	
		11:00-12:00	
	Lunch	12:15-13:30	

ID	Title	Corresponding Author	Session	Time	Location
	December 24, 2025 **Wednesday**				
99	Comparative Performance of CNN-based Models for Seizure Detection in EEG Signals with SMOTE Data Balancing	Seyedeh Somayeh Naghibi	S1	14 - 14:15	3rd Floor Room 402
116	HAT-U-Net: A Hybrid Attention Transformer U-Net for Colorization of Fruits and Vegetables	Maryam Shayesteh	S1	14:15 - 14:30	3rd Floor Room 402
63	A Multi-Scale Wavelet Based Deep Learning Architecture for Effective EEG Artifact Removal	Mohammadreza Hassannejad Bibalan	S1	14:30 - 14:45	3rd Floor Room 402
175	A Robust NLMS and Weighted-Fusion Framework for Range and Angle Estimation in MIMO Automotive Radar	Alireza Zaherfekr	S1	14:45 - 15	3rd Floor Room 402
239	CO2 emission prediction based on the Type 2 Fuzzy Recurrent Neural Network (T2FRNN)	Moammad Fiuzy	S1	15 - 15:15	3rd Floor Room 402
37	XAI FL-IDS: A Federated Learning and SHAP-Based Explainable Framework for Distributed Intrusion Detection Systems	Mohammad Hossein Gholamrezazadeh	S1	15:15 - 15:30	3rd Floor Room 402
26	Explainable Anomaly Detection in Financial Time Series: A Hybrid Deep Learning Approach	Seyed Alireza Ebrahimzadeh Mousavi	S2	14 - 14:15	3rd Floor Room 403
148	Efficient Image Tamper Localization using Neural Activity Maps	Asadollah Shahbahrami	S2	14:15 - 14:30	3rd Floor Room 403
70	Convolutional Estimation of Reactive Betweenness and Dependency from DC Load Flow Data	Mohammad Shahraeini	S2	14:30 - 14:45	3rd Floor Room 403
92	Sparse Representation-based Plant Disease Detection using Leaf Image Processing	Keyvan Asefpour Vakilian	S2	14:45 - 15	3rd Floor Room 403
56	Enhancing Reasoning Skills in Small Persian Medical Language Models Can Outperform Large Scale Data Training	Mehrdad Ghassabi	S2	15 - 15:15	3rd Floor Room 403
198	Enhanced PCG Denoising Using a Multi-Stage Processing Chain and MLP-Driven VMD IMF Optimization	Sobhan Rezazadeh	S2	15:15 - 15:30	3rd Floor Room 403
181	Efficient Edge-Based Facial Emotion Recognition using a Compact Vision Transformer	Nima Esmi	S2	15:30 - 15:45	3rd Floor Room 403
118	Low-Power LoRa End-Device for Real-Time Direction Detection	Siavash Ahmadi	S3	14 - 14:15	3rd Floor Room 407
172	A Hybrid Cluster-Based Classification Model for Anomaly Detection in Unbalanced IoT Networks	Amir Hossein Fathi Hafshejani	S3	14:15 - 14:30	3rd Floor Room 407
39	Imputation of Missing Data in IoT Using an MLP Neural Network Optimized by the GOA	Samaneh Emami	S3	14:30 - 14:45	3rd Floor Room 407
46	IIoT-based Distributed Optimization for Thermal Management of Large-Scale Buildings	Alireza Farhadi	S3	14:45 - 15	3rd Floor Room 407

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	December 24, 2025 **Wednesday**				
226	Sustainable Lean-Based Integrated Optimization for Urban Waste Sweeping with Non-Motorized and Motorized Fleets and Operational Constraints	Javad Rezaeian	S3	15 - 15:15	3rd Floor Room 407
28	A Hybrid Hierarchical Metaheuristic Approach for Load Balancing in Cloud Computing Environment	Bagher Rahimpour Cami	S3	15:15 - 15:30	3rd Floor Room 407
161	Enhancing Static Analysis through LLM-Based Semantic Validation	Seyed Mohammad Taghavi Far	S3	15:30 - 15:45	3rd Floor Room 407
61	A Fuzzy Inference System-Based Decision-Making Unit for Arsenic Electrochemical Biosensors	Keyvan Asefpour Vakilian	S4	14 - 14:15	3rd Floor Room 409
86	An Energy-efficient Approximate Multiplier Based on Simplified Approximate Adders	Shaghayegh Vahdat	S4	14:15 - 14:30	3rd Floor Room 409
108	A Novel Bi-LSTM for Predicting Vehicle Fuel Consumption Using Limited Vehicle-Level Features	Seyed Mohammad Mahdi Pazhouh	S4	14:30 - 14:45	3rd Floor Room 409
155	Enhancing Heart Disease Prediction Using Feature Extraction and Machine Learning Algorithms with Outlier Handling	zahra Mohamadi nejhad	S4	14:45 - 15	3rd Floor Room 409
238	Language Identification in Multilingual Texts using a Shared Alphabet via Fractal Dimension Analysis	Zeinab Khodabakhshi	S4	15 - 15:15	3rd Floor Room 409
182	NGS-GVA: Next-Generation Sequencing and Deep Learning with Hybrid SMOTE Balancing: Unraveling Genetic Variants in Alzheimer's Disease	Masoud kargar	S4	15:15 - 15:30	3rd Floor Room 409
177	A Non-Invasive Ensemble Learning Approach for the Diagnosis of Pancreatic Cancer	Sekineh Asadi Amiri	S5	14 - 14:15	3rd Floor Room 413
143	A Novel Hybrid Approach for Backlit Image contrast Enhancement	Mohammad Reza Hassanzadeh	S5	14:15 - 14:30	3rd Floor Room 413
64	Unsupervised Deep Autoencoder-Based Clustering for mining the Metabolic Syndrome	Mojtaba Hajihasani	S5	14:30 - 14:45	3rd Floor Room 413
187	Interpretable Two-Stage PPG Framework for Cerebrovascular Risk Assesment via Intermediate Blood Pressure Modeling	Hossein Marvi	S5	14:45 - 15	3rd Floor Room 413
126	A Blockchain-Assisted UAV Authentication Scheme for Secure Offloading in 5G-Fog IoV Networks	Yashar Salami	S5	15 - 15:15	3rd Floor Room 413
197	Transformer and Vision Transformer Architectures for Network Intrusion Detection: A Systematic Literature Review and Comparative Analysis	Mohammad Hossein Gholamrezazadeh	S5	15:15 - 15:30	3rd Floor Room 413

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Thursday

ID	Title	Corresponding Author	Session	Time	Location
3	Research Trends in Cloud Computing-Based Signal Processing: A Bibliometric Analysis	Kamyab Azizi	S1	8 - 8:15	Online
5	A Hybrid Deep Learning and Probabilistic Framework for EEG-Based Schizophrenia Diagnosis	Armin Salimi-Badr	S1	8:15 - 8:30	Online
48	A Multimodal Deep Learning Framework for Continuous Grasp Score Prediction from 2D Images	Amir Arsalan Nematollahi	S1	8:30 - 8:45	Online
51	Image Denoising Based on Two-dimensional Sign LMS and NLMS Adaptive Filter Algorithms	Mohammad Shams Esfand Abadi	S1	8:45 - 9	Online
60	AXAN-Net: An Adaptive Exponential Approximator Neural Network for Latent Feature Composition with Application in Audio-Based Fan Fault Detection	Mohammad Pashaei	S1	9 - 9:15	Online
168	Real-Time Infrared Small Moving Object Detection Based on OS-CFAR	Mohammad Rezaee	S1	9:15 - 9:30	Online
174	تشخیص خودکار آریتمی قلبی مبتنی بر رویکرد ترکیب 1D-LSTM و 2D-CNN با لایه‌ی Dense پویا	سیده سمیه نقیبی	S1	10 - 10:15	Online
36	FedSiamese: Privacy-Preserving Face Verification using Federated Learning	Athena Abdi	S1	10:15 - 10:30	Online
204	A Data-driven Approach to Industrial Process Analysis and Quality Assurance in Steel Manufacturing Company Using Machine Learning Techniques	Iraj Mahdavi	S1	10:30 - 10:45	Online
193	Between-Day EEG Classification in BCI Systems: A Comparative Study of Transfer Learning and Ensemble Adaptation Strategies	Zahra Aqajanizadeh	S1	10:45 - 11	Online
119	تشخیص ناهنجاری در داده‌های مصرف برق خانگی مبتنی بر شبکه‌های هوشمند انرژی AMI	Narges Shirdel	S1	11 - 11:15	Online
147	Intelligent Modeling for Deriving Human Lens Stiffness Based on Patients' Demographic Features with Outcome in Phacoemulsification Surgery	Hadi Tabesh	S1	11:15 - 11:30	Online
101	Impact of Contrast Limited Adaptive Histogram Equalization on Banknote Recognition	Mohammad Javad Parseh	S1	11:30 - 11:45	Online
102	Evaluation of Traditional and Deep Learning-Based Video Compression Techniques for Surveillance Systems	soheib hadi	S1	11:45 - 12	Online
88	KD-OCT: Efficient Knowledge Distillation for Clinical-Grade Retinal OCT Classification	Nasrin Sanjari	S2	8 - 8:15	Online
8	Utilizing Colored Petri Nets in Industrial IoT-based Supply Chain Modeling	Alireza Hashemi Golpayegani	S2	8:15 - 8:30	Online

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ID	Title	Corresponding Author	Session	Time	Location
29	بررسی عملکرد اکسل عقب در بهبود پایداری خودرو (مورد مطالعه اکسل عقب دنا پلاس ساخت شرکت فراصنعت آمل)	نرجس احمدیان	S2	8:30 - 8:45	Online
67	طراحی وشبیه سازی سیستم کنترل مبتنی بر PID برای تنظیم بریکس وگازخوری درفرآیند تولید نوشابه	alireza taherigoki	S2	8:45 - 9	Online
73	How Machines Learn to Decide When to Alarm: A Case Study on Temperature Control	Amir Hossein Baradaran	S2	9 - 9:15	Online
95	طراحی و پیاده سازی سیستم تشخیص نفوذ مبتنی بر یادگیری عمیق برای امنیت شبکه های اینترنت اشیاء	وجیهه نوروزی	S2	9:15 - 9:30	Online
96	Skin Cancer Classification Using Vision Transformers Based on Practical Optimizers	Hossein Ebrahimnezhad	S2	10 - 10:15	Online
152	Modern Trends in Content-Based Image Retrieval: A Comparative Review	Haibaoui Mohammed	S2	10:15 - 10:30	Online
47	بهکارگیری یادگیری متضاد برای تشخیص ذاتالریه درتصاویر اشعه ایکس	مهدی رضائیان	S2	10:30 - 10:45	Online
122	Low-Precision POSIT Arithmetic for Spiking Neural Networks with Kahan Summation	Reza Adinepour	S2	10:45 - 11	Online
69	DN-DETR for Medical Object Detection: Application to Melanoma Diagnosis	Amirreza Rouhbakhshmeghrazi	S2	11 - 11:15	Online
87	An Efficient Fault Tolerance Approach for CNNs based on Selective TMR and Pruning	Farzin Sharifzadeh Javidi	S2	11:15 - 11:30	Online
125	LSTM-Based Emotional EEG Framework for Alzheimer's Diagnosis Using Connectivity and CNN Features	Arshia Rezaei	S2	11:30 - 11:45	Online
31	Characterization of Electrooculography Signals for Diabetic Retinopathy Based on Fractal Algorithms Using a Low-Cost Device	Dulce Martinez-Peon	S3	8 - 8:15	Online
57	A Comparative Study of Visual Servoing Schemes for ROV Hovering: Robustness and Performance of Image Moments versus Point Coordinates	Mehdi Loueipour	S3	8:15 - 8:30	Online
66	A Comprehensive Review of Deep Learning-Based Speaker and Face Recognition in Biometric Authentication: Methods, Challenges, and Detection of Deepfakes	Pedram Amini	S3	8:30 - 8:45	Online
79	Single-Image Depth to 3D Path planning for Collision-Free Drone Navigation	Milad HamishBahar	S3	8:45 - 9	Online
82	RoBoard: a Platform to Teach Robots How to Play Board Games	Armin Salimi-Badr	S3	9 - 9:15	Online
90	Load Forecasting and Demand Response for Enhancing Photovoltaic Hosting Capacity in Distribution Networks	Iman Soltani	S3	9:15 - 9:30	Online
91	Dual-Branch Multi-Task Transfer Learning for Short-Term PV Forecasting in Smart Grid Integrated EV Charging Stations Under Data Scarcity	Iman Soltani	S3	10 - 10:15	Online

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	December 25, 2025 **Thursday**				
167	Decoding movement kinematics from EEG using CNN based features	Pegah khoshkavandi	S3	10:15 - 10:30	Online
171	An Explainable MFCC-Based Deep Learning Framework for Song Emotion Recognition	Mousa Nazari	S3	10:30 - 10:45	Online
97	Human-Centric Anomaly Detection in Surveillance Videos Using YOLO-World and Spatio-Temporal Deep Learning	Hoda Mohammadzade	S3	10:45 - 11	Online
14	Intelligent Model for Identifying Defective Aircraft Parts	Hamidreza Rokhsati	S3	11 - 11:15	Online
200	Multi-Target ISAR Imaging of UAV Swarms Using Fast Reweighted Atomic Norm Denoising	Mohammad Roueinfar	S3	11:15 11:30	Online
93	Upgrading LSTM-Attention to a Transformer Decoder for Image Captioning with Object and Visual Features	Mohammad Javad Parseh	S3	11:30 - 11:45	Online
55	Bayesian Network-Based Data Augmentation for Missing Labels in Machine Learning	Habib Kabiri Chaleshtary	S4	8 - 8:15	Online
16	Heart Disease Prediction: A Novel Approach Using Mutual Information and Deep Learning	Ahmad Azarnik	S4	8:15 - 8:30	Online
17	Lightweight Spam Detection with BOW and Deep Stacking	Ahmad Azarnik	S4	8:30 - 8:45	Online
19	Air Quality Prediction Using Machine Learning Models on IoT Sensor Data	TermehMousavi	S4	8:45 - 9	Online
20	A Cross-Validation Framework for Robust ANN Modeling: Application to Electrical Discharge Machining of Inconel 718	Ahmad Azarnik	S4	9 - 9:15	Online
22	Beyond Personality: Integrating Emotional Intelligence for Enhanced Recommendation System	Ahmad Azarnik	S4	9:15 - 9:30	Online
23	سیستم توصیه شخصی سازی شده مبتنی بر یادگیری عمیق در خرده فروشی آنلاین	مهدی یزدیان دهکردی	S4	10 - 10:15	Online
30	EEG-ECG Connectivity in Different Emotion States based on Linear and Nonlinear Granger Causality	Bahar Shamsaei	S4	10:15 - 10:30	Online
38	تشخیص ناهنجاری در تصاویر صنعتی با آموزش تقابلی دو طرفه روی ویژگی‌های عمیق چند سطحی	Saman Mohammadi Raouf	S4	10:30 - 10:45	Online
52	EFD-SE-DPCNN: An EEG-Based Deep Learning Framework for Early Detection of Alzheimer's Disease	Saba Haji molla rabie	S4	10:45 - 11	Online
53	Application of Artificial Intelligence in Smart Grids: Methods and Challenges	Nadia Khiadani	S4	11 - 11:15	Online
164	An Ensemble Deep Learning Framework for Precise Diagnosis of Lung Diseases Using Medical Imaging	Azamossadat Nourbakhsh	S4	11:15 - 11:30	Online

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	December 25, 2025 **Thursday**				
71	Feedforward and CNN Approaches to Optimal PMU Placement: A Study on Erd˝os–R´enyi Synthetic Power Grids	Mohammad Shahraeini	S4	11:30 - 11:45	Online
98	Intelligent Control System of Simultaneous Cooling and Heating in Carbon Dioxide District Energy Systems	Meisam Sadi	S4	11:45 - 12	Online
34	VITA: A Voice-based Intelligent Transformer-GMM Assessment Framework for Parkinson's Disease Diagnosis	Saghar Shafaati	S5	8 - 8:15	Online
35	Hierarchical Reinforcement Learning for Integrated Cloud-FogEdge Computing in IoT Systems	Ameneh Zarei	S5	8:15 - 8:30	Online
54	Multi-Operator Image Resizing Using Saliency-Aware Seam Carving	Abolfazl Rouhizahir	S5	8:30 - 8:45	Online
65	Mitigating Gender Bias in Persian Speech Emotion Recognition Using Emotion-Aware Adaptive Loss and Hierarchical Fusion	Vajiheh Sabeti	S5	8:45 - 9	Online
179	Estimation of Smoke Concentration via Image Processing and Planar Laser-Induced Visualization	Maysam Saidi	S5	9 - 9:15	Online
43	A Framework for Aspect-Based Sentiment and Opinion Mining in Persian Language: Dataset Creation and Domain Application in Hotel Reviews	Sepideh Jamshidi Nejad	S5	10 - 10:15	Online
100	Clustering News on Iran's Nuclear Negotiations Using K-Means	Amir Hossein Baradaran	S5	10:15 - 10:30	Online
62	GALaXy-PPI: A Global-Attentive Local Transformer for Multi-Label PPI Typing	Nima Mahmoudi	S5	10:30 - 10:45	Online
142	Unsupervised Hyperspectral Image Anomaly Detection using 3D Convolutional Autoencoders	Damoon Alemzadeh	S5	10:45 - 11	Online
81	Comparative Evaluation of Machine Learning Models for Employee Attrition Prediction	Maryam Karimi	S5	11 - 11:15	Online
58	Deformable shape matching and point correspondence based on local, global, and geometric features of objects and its application to image retrieval	Fariba Amini	S5	11:15 - 11:30	Online
73	How Machines Learn to Decide When to Alarm: A Case Study on Temperature Control	Amir Hossein Baradaran	S5	11:30 - 11:45	Online
169	An Interpretable and Efficient KNN-Based Approach for Object Segmentation	Sina Saadati	S6	8 - 8:15	Online
170	On the Learners' Brain Processing of Syntactically Anomalous Sequences in English: An ERP Study	Saeedeh Shamsaee	S6	8:15 - 8:30	Online

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	December 25, 2025 **Thursday**				
178	Robust Trajectory Tracking and Muscle Force Estimation in a 2-DOF Musculoskeletal Arm Using Adaptive Integral Terminal Sliding Mode Control	Seyyed Arash Haghpanah	S6	8:30 - 8:45	Online
188	The N400 Component in the L2 Learners' Processing of Semantic Anomalies in L1 Formulaic Sequences	Saeedeh Shamsaee	S6	8:45 - 9	Online
190	EchoFusion: Multi-View Transformer Architecture with Anatomical Constraints for Comprehensive Echocardiographic Assessment	Bashir Najafabadian	S6	9 - 9:15	Online
72	Graph-based Reordering and Swap Refinement for Consecutive Numbering in Complex Power Grids	Mohammad Shahraeini	S6	9:15 - 9:30	Online
203	RL-MEL: Reinforcement-Learning–Guided Multi Task Evolutionary Learning for High-Dimensional Feature Selection	Malihe Danesh	S6	10 - 10:15	Online
163	Explainable Artificial Intelligence in Medical Image Segmentation: A Review of Approaches, Applications, and Challenges	Azamossadat Nourbakhsh	S6	10:15 - 10:30	Online
75	A novel approach for controlling robotic eye movement using U-Net based model	Reza Javanmard Alitappeh	S6	10:30 - 10:45	Online
83	B-CAD: Adaptive Dual-Attention Enhanced Framework for Breast Cancer Histopathology Image Classification	Seyedeh Somayeh Naghibi	S6	10:45 - 11	Online
6	Development of a Secure IoT-Based System for Real-Time Monitoring of Medical Image Equipment	Peyman Vafadoost Sabzevar	S6	11 - 11:15	Online
50	Speckle Noise Suppression in Liver Ultrasound Images Using a Grey Wolf Optimizer (GWO)-Based Homomorphic Filter: A Combined Quantitative and Qualitative Evaluation	Seyed Enayatallah Alavi	S6	11:15 - 11:30	Online
180	A Unified Blockchain Framework for Smart City Resource Management with Convertible Tokens	Amirhosein Mansouri	S6	11:30 - 11:45	Online
104	Graph-Regularized GEVD for Epileptic EEG Denoising: A Comparative Study of Temporal and Spatial Priors	Alireza Khaleghi Anaghizi	S7	10 - 10:15	Online
24	Reconstructing Sparse Elements in Sequential Data: Application to Wind Velocity	Reza Hassanian	S7	10:15 - 10:30	Online
105	A Spatiotemporal Graph Autoencoder for Early Freeway Traffic Anomaly Detection	Zahed Rahmati	S7	10:30 - 10:45	Online
123	Enhancing Yaw Error Tolerance in Synthetic Aperture Sonar via Maximum-Likelihood Receiver Selection on Mobius-Strip Arrays	Hamid Hajirahimi Kashani	S7	10:45 - 11	Online

December 25, 2025 Thursday					
ID	Title	Corresponding Author	Session	Time	Location
10	Out-of-Distribution Detection in the PCA space of Vision Transformer	Mahboobeh Riahi-Madvar	S7	11 - 11:15	Online
49	Euclidean SLAM in Dynamic Environments: Two Novel Landmark Estimators for Moving Landmark Detection	Sayed Mojtaba Mirghaderi	S7	11:15 - 11:30	Online
12	Performance analysis of the SC implementation of the Forward-Forward learning algorithm	Quero, José M	S7	11:30 - 11:45	Online
130	Research On Vaccination Site Location and Capacity Allocation Based on Simulated Annealing	Chen Yueru	S7	11:45 - 12	Online