INFUS

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İTÜ

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July 7-DAY 1

09.00-09.30	Registration / Welcome Coffee & Refreshments			
09.30-09.45	Opening			
09.45-11.15	*Room: Hagia Sophia Palace*	*Keynote Speeches*	Speaker	Chair
		Keynote Speech 1: A new consensus-driven and dissensus-driven group decision model via some extended OWA operators	J. Kacprzyk	S.C. Onar
		Keynote Speech 2: Artificial Intelligence for a Sustainable Future Driving Innovation in the Circular Economy	A. Özok	
11.15 -11.30	Coffee Break			
11.30-13.00	ONSITE & ONLINE SESSION-1			
13.00-14.15	Lunch			
14.15-15.45	ONSITE & ONLINE SESSION-2			
15.45-16.00	Coffee Break			
16.00-17.30	ONSITE & ONLINE SESSION-3			
18.00-20.00	WELCOME COCKTAIL			

July 8-DAY 2

09.00-09.30	Registration / Welcome Coffee & Refreshments			
09.30-11.00	Room:Hagia Sophia Palace	Keynote Speeches		Chair
		Keynote Speech 3: From Smart Data to Intelligent Decisions: Data Valuation and Optimization in Industry X.0	F. Yalaoui	C. Kahraman
		Keynote Speech 4: Modified Voronoi diagram partitioning of the intuitionistic fuzzy interpretational triangle	K. Atanassov V. Atanassova	
11.00 -11.15	Coffee Break			
11.15-12.45	ONSITE & ONLINE SESSION-4			
12.45-14.00	Lunch			
14.00-15.30	ONSITE & ONLINE SESSION-5			
15.30-16.00	Coffee Break			
16.00-17.00	CLOSING CEREMONY			
18.00-22.00	GALA DINNER - BALTALIMANI SOSYAL TESISLERI - İSTANBUL ÜNIVERSITESI			
	Shuttle buses to the Gala Dinner will depart from the front of the conference building			

July 9-DAY 3

09.00 Depart Maslak İTÜ Campus
10.00 Arrive Çamlıca Hill
11.45 Depart Çamlıca (Cold Sandwich Service)
13.30 Depart Kanlıca
15.00 Depart Küçüksu Palace
15.30 Arrive Beylerbeyi Palace
17.30 Depart Beylerbeyi Palace
18.30 Arrive Maslak İTÜ Campus
Shuttle buses will depart from the front of the conference building

ONSITE	July 7-Day 1 SESSION-1 11.30-13.00	
Schedule	**Title**	**Authors**
Session: 1.1 Room: Hagia Sophia MİGROS Special Session **Chair: S. Cebi**	Evaluation of Digital Technologies for Retail Analytics with an Integrated Hesitant Fuzzy AHP-based QFD Methodology	Taylan, R., Büyüközkan, G., Mukul, E., Zeybek, Ö.
	Sensor and SLAM Algorithm Comparison for GPS-Denied Indoor Drone Navigation: Experimental Evaluation of Optical Flow, 2D LiDAR, RGB-D Camera, and 3D LiDAR Approaches	Sarıkaya, D., Dilmen, D., tüzün, I., Hisar, D., Yücel, M.
	Unsupervised Sales Anomaly Detection and Causal Attribution for Large-Scale Retail Store Networks	Çedikçi, L., Oğul, İ.
	Do Consumer Confidence Sub-Indices Forecast Retail Sales in Türkiye? An ARDL and ARIMAX Assessment	MERİÇ, M., Zeybek, Ö.
	Inter-Store Transfer Optimization for Aged Inventory Management: A Mixed Integer Programming Model	Gökdemir, M., Yüceoğlu, B., Mert, B.
Session: 1.2 Room: Maiden's Tower Fuzzy MCDM & Decision Making **Chair: P. Nguyen**	Carbon Reduction Investment Decisions in Vietnamese Manufacturing Firms Using Fuzzy Logarithm Methodology of Additive Weights Model	Nguyen, B., Nguyen, P., Thi Nguyen, L., Le Hoang, H.
	Proportional Complex Fuzzy Sets: A Multiple Criteria Decision Making Application	Kahraman, C., Tolga, B., Yücekaya, A., Gül, A.
	An Intelligent Model for Pick-up and Delivery Network Optimization	Özbedel, A., Bayram, B., Gökdağ, M., Göresim, B., Özoğlu, A., Yakıcı, E.
	Dynamic Inventory Planning Under Demand and Lead Time Uncertainty Using Machine Learning Based Forecasting	KABARCIK, A., Aksoku, B., Arslan, D., Bilkay, H., Şeref, D., Yoğurtçu, S.
	A Review of Fuzzy TOPSIS Methods and Complex Pro portional Pythagorean Fuzzy TOPSIS Method	Kahraman, C., Tolga, B., Gül, A., Kadikoylu, S.
Session: 1.3 Room: Galata Tower Intelligent Systems & Applications **Chair: O. Karasakal**	Evaluation and Ranking Stability Analysis of Circular Maintenance Strategies Using Fuzzy MCDM Procedure	Arı, E.
	An Investigation on Multi-Objective Robust Optimization and Fuzzy Approaches	Cebesoy Uslu, M., Karasakal, E., Karasakal, O.
	Reinforcement Learning-Based Airfoil Shape Optimization Using Hybrid Surrogate Models	Tekay, E., İşleyen, İ., Karaduman, M., Yetkin, S., Kiziltepe, R.
	Requirements Prioritisation for AI-Driven Circular Economy Systems for an Airline Using Spherical Fuzzy TOPSIS	Şengül, D., Kaymaz Karahan, F.
	Climate-Conditioned Financial Risk in Desert PV Assets: A Fuzzy Degradation Modeling Framework	Malkawi, G., Elsayed, A., Alazzam, A., Omari, A., Badreddine, S., Altigani, A.
Session: 1.4 Room: Topkapi Palace Fuzzy MCDM & Decision Making **Chair: M. Fadhel**	Privacy-Preserving Federated Artificial Intelligence for Medical Analysis Across Distributed Healthcare Systems	Al-Shamma, O., Fadhel, M.
	Risk Integrated Supplier Selection: A Hybrid DEMATEL-ANP-TOPSIS Framework With FMEA	Sıcakyüz, Ç., Eroğlu, Y., Çapraz, M., Koçak, B., Gündüz, O., Kavadar, İ.
	Strategic Analysis of Metaverse Risks using Fermatean Fuzzy SWARA	Havle, C., Büyüközkan, G.
	Explainable and Trustworthy Artificial Intelligence Models for Clinical Decision-Making Support in Medical Imaging	Al-Shamma, O., Fadhel, M.
	Uncertainty-Aware Algorithm Based on Neutrosophic Association Rules Mining for Smartphone Interruption Management	Farhan, A., Hassen, O., Darwish, S., Ibrahim, R.
	A Feature-Engineered Clustering Framework for Industrial Demand Segmentation	Siper, B., Karakaya, S., Eryılmaz, G., Eybek, E., Özçelik, A., Ceylan, İ., Sıcakyüz, Ç.
Session: 1.5 Room: Dolmabahce Palace Intelligent Systems & Applications **Chair: R. Rzayev**	Fuzzy Linguistic Interpretation of Traffic Density Based on Structural Scale Indicators	Rzayev, R., Ahmadov, E.
	Resilience and Sustainability Based Supplier Selection Decision Making Framework via SF-BWM & SF TOPSIS	Ahıskalı, A., Koçak, A., Arat, Ç., Yuvacı, Z., Ünlü, N., Otay, İ.
	Structural Scale-Based Identification of Traffic Density from Remote Road Images	Rzayev, R., Kerimov, A., Aliyev, V.
	Split vs. Non-Split Delivery Strategies in Sustainable Urban Logistics Under Fuzzy Uncertainty	Tuna, Y., Tiryaki, F., Qadri, S.
	Recursive Planar Position Estimation of a Multicopter Using Beacon Measurements and Inertial Data	Rzayev, R., Huseynzade, S.
	A Fuzzy Inference Approach to Assessing the Impact of Organisational Routines on Internationalisation Speed Under Environmental Hostility	Şengül, D., Kaymaz Karahan, F.

ONLINE	July 7-Day 1 SESSION-1 11.30-13.00	
Schedule	**Title**	**Authors**
Session: 1.6 Room: Online Room 1 Machine Learning & AI **Chair: A. Degirmenci**	An Adaptive Game-Based Learning Environment with Rule-Based Decision Mechanisms for Assessing Introduc-tory Programming Concepts	Sapundzhi, F., Kostova, K., Krumova, B., Sapundzhi, S., Simeonova, E.,
	Comparative Benchmarking of Multi-Label Text Classification Methods for Biomedical Texts	Mercan, Ö., Turhan Turan, N., Onan, A.
	Readability–Reuse Trade-offs in LLM-Based Text Simplification Across Scientific and Encyclopedic Domains	Çiçek, D., Onan, A.
	CTI-BERT–Driven Multi-Label Mapping of MITRE ATT&CK Techniques from Cyber Threat Intelligence Reports	Özçetin, A., Onan, A.
	Design and Evaluation of an Automated Cryptocurrency Trading System Based on Technical Indicators and Real-Time Analytics	Ivanova, A., Selchuk, T., Sapundzhi, F., Bakardjieva, T., Ivanova, A.,
	A Secure and Resilient Telemedicine Framework for Maritime Environments: Architecture and Design Considerations	Ivanova, A., Yordanova, Y., Sapundzhi, F., Bakardjieva, T.,
Session: 1.7 Room: Online Room 2 Intelligent Systems & Applications **Chair: Z.B. Kizilkan**	An Intuitionistic Fuzzy Deep Q-Network for Decision Making under Uncertainty	Tranev, S., Yovcheva, P., Georgieva, V., Traneva, V., Todorov, V.
	Climate Change Impact Assessment on Social Protection Using Fuzzy Logic Modeling	Imamguluyev, R., Eyvazova, T., Aliyeva, N., Aliyev, U., Osmanova, S.,
	Advanced Intelligent Techniques for High-Dimensional Integral Equations	Traneva, V., Todorov, V., Tranev, S., Dimov, I., Yovcheva, P., Srebreva, T.,
	Modeling and Controlling Macroeconomic Stability Using Fuzzy Logic under Economic Uncertainty	Imamguluyev, R., Babayeva, R., Guliyeva, S., Rashidova, P., Guliyeva, A., Hajizada, S.
	Optimizing Smart Irrigation and Soil Moisture in Arid Regions Using a Hybrid Fuzzy Logic Framework	Imamguluyev, R., Imanova, T., Isgandarova, A., Poladova, U.,
	A Hybrid Deep Belief Network and Intuitionistic Fuzzy Approach for Fingerprint Recognition	Tranev, S., Traneva, V., Yovcheva, P., Georgieva, V., Ishmerieva, I., Todorov,
Session: 1.8 Room: Online Room 3 Intelligent Systems & Applications **Chair: E. Olgac**	Learning from Headlines: Exploring the Effects of the Great Depression Using Sentiment Analysis and Supervised Learning	Aloğlu, M., Köksal, D., Kaya, T.
	Multi-Modal Sensor Fusion and Intent Inference for Autonomous Swarm Defense	Akay, T., Karatas, M., Turan, H.
	Iterative Hybridization of Mayfly and Roach Infestation Optimization via a Type-1 Fuzzy Switching Mechanism with Type-1 Fuzzy Parameter Adaptation in RIO	Lizarraga, E., Valdez, F., Castillo, O., Melin, P.
	Type-1 Fuzzy Logic-Based Control Parameter Adaptation in the Dung Beetle Optimizer for Mathematical Functions	Ochoa, P., Peraza, C., Castillo, O.
	What Players Really Say: A Machine Learning Analysis of In-App Purchase Game Reviews	Bozkır, B., Öcal, Ş., Kaya, T.
Session: 1.9 Room: Online Room 4 Machine Learning & AI **Chair: E. Cakir**	A Pentapartitioned Neutrosophic COPRAS Approach for Multi-Criteria Evaluation of Farming Strategies	Ajay D , Porchudar T , Sathya M , Beija Minnie M
	Methods and Algorithms for Topological Ordering of Spatio-temporal Data and Operations on Fuzzy Graph	Knyazeva, M., Belyakov, S., Bozhenyuk, A., Pokusaev, O.
	Fuzzy Topological Indices on the Montelukast Structure	Peter M , Janet Sheeba J , Mohammed Yasin R , Santhoshkumar
	Predicting Prediabetes Risk with Machine Learning and Deep Learning Algorithms: a study based on Korea National health and nutrition examination survey data	Soylemez, U., Tumer, A., Bakir-Gungor, B., Yousef, M.
	Heart Attack Risk Prediction using Impact - Fuzzy Graph	Peter M, Santhoshkumar S , Kreethika S , Abuthahir A , Ajay D
	Comparative Analysis of Classical and Deep Learning Based Feature Extractors for Stereo Camera Area Measurement	Sarialioglu, O., BALCI, I., Cebi, S., KURU, A., ERDEM, Y., SALTURK, S.
Session: 1.10 Room: Online Room 5 Machine Learning & AI **Chair: G. Sahin**	Institutional Perspectives on MRV System Implementation for Corporate Carbon Accounting: A Spherical Fuzzy AHP-COCOSO Approach	Pham, T., Nguyen, P.
	Prioritizing Supplier Relationship Management Capabilities for Long-Term Value Creation	Ngo, T., Nguyen, P.
	Convolutional Neural Network-Based Tsunami Time Series Prediction and Analysis of the 30 October 2020 İzmir-Samos Tsunami	Alan, A., Bayındır, C., Namlı, B., Ozaydin, F., Erdik, T., Altıntaş, A.
	Time Series Forecasting of the Wake Effect in Floating Wind Turbines Using ANFIS	Namlı, B., BAYINDIR, C.
	Flexible Centers in Designing Supply Chain Networks	Tran, D., Nguyen, D., Nguyen, P.
	Monitoring and Modeling Non-Stationary Groundwater Levels in Watersheds Using Remote ℓ1-Regularized Sparse Identification	BAYINDIR, C., ALAN, A., Namlı, B., Erdik, T., Altıntaş, A., Ozaydin, F.
Session: 1.11 Room: Online Room 6 Machine Learning & AI **Chair: I. Gumus**	OPERATIONS ON LADDER FUZZY GRAPHS	YAMUNA, S., Rosline, J., Borg, S.
	OPERATION ON DUBOIS PRADE FUZZY GRAPH AND ITS PROPERTIES	JANANI, J., Rosline, J., Sathinathan, T.
	A Data-Driven ANFIS Approach for Carbon Emission Classification in Supply Chains	Özpaçacı, K., Özbakır, L., Torun, H.
	Short-term Electricity Load Prediction with Machine Learning Models	Kaya Akça, M., Özmen, A., Defterli, Ö.
	Integrating Contextual Bandits and ROAS Forecasting for Adaptive Campaign Performance Monitoring	Ülkü Küp, B., Çembertaş, Z., Aydemir, F., Çetintav, B.
	Energy Management Systems for Electric Vehicles: A Hybrid Quantum-Fuzzy Optimization Framework	Can, E., Farajirad, N., meric, G.
Session: 1.12 Room: Online Room 7 Fuzzy MCDM & Decision Making **Chair: N. Alkan**	Supporting the Digitization of Physical Stores in Smart Destinations through a Multi-Criteria Approach: The Case of Travel Agencies	Shu, Z., Vidal Gil, J., Carrasco-Aguilar, Á., Arias-Oliva, M.
	Hybrid Fuzzy and Linguistic Decision-Support Models for Explainable Vehicle Recommendation in Automotive Retail	Shu, Z., Sánchez-Figueroa, C., Carrasco, R., Lima Rua, O.
	A Bibliometric Analysis of Fuzzy Risk Assessment Research: Trends, Structures and Intelligent System Perspectives	Georgescu, I., Nica, I., Kinnunen, J., Chirita, N.
	Territorial development as a Complex Adaptive System: an entropy-based fuzzy index and clustering approach in the Republic of Moldova	Nica, I., Georgescu, I., Chirita, N., Kinnunen, J.
	From Maps to Business Decisions: Geo-Optimization for Minimum Sufficient Night Pharmacy Coverage with Cost Savings and Access Impact	Deif, M., Metawa, N., Ahmed, M., Elsharkawy, M.
	Comparative Analysis of Heuristic and Meta-heuristic Algorithms for Order Batching Problem in Warehouse Management	FERYAD, V., Turhan, İ., Özcan, T., Özer, M.

ONSITE	July 7-Day 1 SESSION-2 14.15-15.45	
Schedule	**Title**	**Authors**
Session: 2.1 Room: Hagia Sophia Fuzzy MCDM & Decision Making **Chair: M. Fadhel**	A Secure and Efficient CNN-Powered IoT Framework for Smart Medical Imaging Applications	Noori, S., Fadhel, M., Al-Shamma, O.
	Structural Transformation of Fuzzy MCDM in the Big Data Era: A Systematic Synthesis of Multi-Layer Decision Paradigms	BİLGEN, K., Cebi, S.
	A q-Rung Orthopair Fuzzy Dombi Generalized Heronian Mean–AURA Decision-Making Framework for Educational Technology Evaluation	RODZI, Z., Kamarul Zaman, M., andu, Y., Bazlan, A., ANAM, S., Al-
	Power–MSM Aggregation Operator under Complex Pythagorean Neutrosophic Sets	Ismail, J., RODZI, Z., Said Husain, S., ANAM, S.
	Sampling Guided Spectral Graph Neural Networks for Robust Traffic Forecasting in Multi-Intersections	Yılmaz, E., Coşkun, M., Bakir-Gungor, B., Deniz,
Session: 2.2 Room: Maiden's Tower Fuzzy MCDM & Decision Making **Chair: I. Otay**	Complex Spherical Fuzzy EDAS Based on Hybrid Weighting Method	Aldemir, B., Aydoğdu, E., Güner, E., Aygün, H.
	Financial Portfolio Evaluation Utilizing Spherical Fuzzy BWM and COPRAS Methodology	Köksal, E., Barutbaş, K., Bulut, B., Otay, İ.
	From Detection to Resolution: A Deep Learning Framework for Destination Facility Prediction in Inbound Shipments	Eroglu, E., Buyuktas, V., Simsek, B., Özcan, T.
	An Intelligent Partitioning Approach for Surveillance over Disjoint Areas by a Homogeneous Fleet	Bozdoğan, E., Karasakal, O.
	An Intelligent Analogy Between Machine Scheduling and Surveillance Planning	Arduç, İ., Yakıcı, E., Karasakal, O.
	Topic Modeling in Low-Resource Languages: A Comparative Study on Turkish Airport Reviews	Balaban, C., Akouet Ekassa, S., Kiziltepe, R., Karakus, M.
Session: 2.3 Room: Galata Tower Fuzzy Theory & Mathematics **Chair: Traneva, V.**	Ontology-Based Formal Model for Representing Bulgarian Folklore Elements	Traneva, V., Srebreva, T., Srebrev, S., Tranev, S.
	Tracking Educational Progress in Secondary Education through Intuitionistic Fuzzy Change Analysis: A Longitudinal Intelligence-Driven Framework	Petrov, P., Bureva, V., Traneva, V., Tranev, S.
	A Circular Intuitionistic Fuzzy Model for Assessing Workforce Stability under Cyclic Shift Patterns	Tranev, S., Traneva, V., Todorov, V., Petrov, P.
	Stochastic Techniques for Solving Large Linear Systems	Todorov, V., Georgiev, S., Sapundzhi, F., Popstoilov,
	Robust Neural Network Forecasting of Monthly Photovoltaic Energy Yield with Uncertainty Quantification	Sapundzhi, F., Georgiev, S., Stefanova, T., Georgiev, I., Todorov, V.
	A Lightweight Hybrid Fuzzy Logic and Unsupervised Learning Approach for Explainable Energy Consumption Anomaly Detection	Stefanova, T., Georgiev, S.
Session: 2.4 Room: Topkapi Palace Supply Chain, Logistics & Operations **Chair: C. Sicakyuz**	Consistency Assessment in Triangular Fuzzy AHP: A Fuzzy Extension of Koczkodaj's Consistency Measure	Kızılkan Demir, Z., Öztayşi, B.
	Usage Patterns of AC and DC Electric Vehicle Charging Stations	Arslan, E., Sıcakyüz, Ç.
	Delay Risk Classification in Logistics Using Machine Learning Methods	Bilge, H., Öztayşi, B.
	Minimizing Electric Pallet Truck Trips in In-Plant Logistics Through Dynamic Replenishment Optimization	KABARCIK, A., Pehlivan, E., Sarıkaya, İ., Ardıç, D., Yıldırım, S., Özgür, G.
	Dynamic Safety Stock Optimization in MRP Systems Using a Hybrid Prophet-LightGBM Framework	KABARCIK, A., Özkale, U., Kahrıman, Ö., Akan, S., Kolsuz, E., Sahin, S.
	Adaptive Course Equivalence with Reflective Prompt Evolution: A Self-Improving Multi-Agent Harness	Utkan, K., Öztayşi, B.
Session: 2.5 Room: Dolmabahce Palace Machine Learning & AI **Chair: K. Boke**	A Data-Driven Integrated Fuzzy Inference and MCDM Framework for Performance Assessment of Logistics Hubs	Kucuk, G., Atuk, M., Cebi, S.
	Strategic Analysis of Climate Change Risks using Intuitionistic Fuzzy Cognitive Map	Havle, C., Büyüközkan, G., Feyzioglu, O.
	A Stochastic Fuzzy Inference–Based Task Scheduler for Makespan Minimization in Cloud Computing	Kınalı, U., Böke, K., Qadri, S.
	A Fuzzy Decision Framework for Gaming CPU Selection Under Performance Uncertainty	Dinçer, L., Çetin, B., Aşlakcıoğlu, S., Qadri, S.
	Trajectory-Based Signal Recognition under Consistent Segmentation	Rzayev, R., Kerimov, A., Ismayilov, E.
	A Multi-Objective Fuzzy Goal Programming Model for Portable EV Charging Network Optimization	Vurgun, A., Yavuz, N., Qadri, S.

ONLINE	July 7-Day 1 SESSION-2 14.15-15.45	
Schedule	**Title**	**Authors**
Session: 2.6 Room: Online Room 1 Education, Language & Social Systems **Chair: S. Kadikoylu**	Fuzzy Logic Driven Analysis of Historicisms in Indo European Languages Using Digital Corpora in Modern Lexicology	Imamguluyev, R., Asadova, A., Mammadova, S.,
	A Fuzzy Logic Framework for Evaluating Firm Investment Attractiveness under Financial Uncertainty	Imamguluyev, R., Nabiyev, A., Hasanov, I., Hashimova, G., Bayramov, V.
	Enhancing Loan Decision-Making through Fuzzy Inference Systems	Imamguluyev, R., Heydarov, J., Valiyeva, T., Bagirov, M.,
	Beyond Diagnosis: Evaluating Clinical Reasoning Capabilities of Large Language Models on the CupCase Benchmark	Mumcu, S., Yılmaz, Y., Celikten, T., Onan, A., Ergün, A.
	Benchmarking Bias Detection in Large Language Models: A Unified Evaluation across Fairness, Categories, and Language Use	Kaçıkan, E., Ceran, İ., Kaçmaz, Y., Onan, A.
Session: 2.7 Room: Online Room 2 Fuzzy MCDM & Decision Making **Chair: B. Tolga**	Prioritization of Digital Investment Areas for Developing Countries: A Phase-Sensitive Data-Driven Fuzzy MCDM Framework	Kilinc Erarslan, T., Torun, H., Özbakır, L.
	A Pythagorean Fuzzy VIKOR-Based Hybrid Multi Criteria Decision Making Model for Real-Time Earthquake Early Warning Systems	Farajirad, N., Ucan, R., Can, E.
	Analysis of Interrelationships Among Criteria in the Site Selection of Tram Transfer Hubs: A PiF-DEMATEL Approach	Aydin, N., Kara, B., AyBeylerbeyi, E.
	Fuzzy Logic–Based Assessment of Research–Industry–Entrepreneurship Integration in Universities	Bayramov, E., Bayramova, G., Aghayeva, K.
	Metaheuristic Hyperparameter Tuning for Credit Default Prediction in Uncertain Environments	Egeli, C., Aydemir, F., Çetintav, B.
	A Dual-Branch Deep Learning Framework for Malicious URL Detection via Sequential and Lexical–Structural Feature Fusion	Keskin, F., Kuz, F., Turgut, Z.
Session: 2.8 Room: Online Room 3 Machine Learning & Inference Systems **Chair: A. Degirmenci**	Fuzzy Inference Systems Based on Picture and Spherical Fuzzy Sets	Bahadir C., Kahraman C.
	Stress Centrality in Intuitionistic Fuzzy Graphs and Its Applications	Yagavi R , Mahesh Kumar C V., David Raj M.
	Machine Learning-Based Detection of Phishing URLs Without Semantic Features	Erkan, E., Celikten, T., Ergün, A., Onan, A.
	Deterministically Calibrated Hamiltonian Based Quantum-Inspired Optimization	Özsoy, T., Öztayşi, B.
	Data-Driven Intelligent Change Point Detection for Tsunami Wave Regime Identification Using Sea-Level Time Series	Alan, A.
	Prediction of Hydrodynamic Properties of NREL 5 MW Monopile Wind Turbine Under Tsunami Impact by Using ANFIS	Namlı, B.
Session: 2.9 Room: Online Room 4 Supply Chain, Logistics & Operations **Chair: N. Alkan**	A Fuzzy AHP and Fuzzy TOPSIS Based Decision Frame-work for Sustainable Beer Packaging Selection Using LCA and Circularity Indicators	Güçlü, A., Paldrak, M., Çalı, S., Staiou, E.
	Multi-view Extensions of Neutrosophic C-means Variants for Clustering Analysis	Dang, D., C. Nguyen, H., Bui, H., Bui, Q.
	Integrated Fuzzy-Gradient Boosting Models for Enhanced Osteoporosis Screening	Rahmanoğlu, Y., Khalil, R., Affi, B., Bakour, T.
	Priority Cargo Delivery Routes Selection under Fuzzy Traffic Conditions and Dynamic Security Situations	Dorosh, M., Trunova, O., Trunov, O., Voitsekhovska, M.
	Application of Reinforcement Learning in Real-Time Intelligent Delivery Dispatch in Hanoi	Bui, D., Dang Quoc, H., Vu Bui Thuy, D., Hồ Minh, H.
	Evaluation of the Influence of Fuzzy System Parameters on the Performance of Microcontroller-Based Fuzzy Solvers	Min Htet, Y., Alexey Evgenievich, V., Min Htet, Y.,
Session: 2.10 Room: Online Room 5 Fuzzy Theory & Mathematics **Chair: U. Cinar**	Argumentation Method of Decisions in the Geospatial Intelligence System	Belyakov, S., Bozhenyuk, A., Isaev, A., Grigoriev, D.
	Hybrid Approach to Emergency Decision-Making for Transporting the Maximum Number of People in Networks with Safety Parameters	Gerasimenko, E., Bozhenyuk, A.
	Extended Metric of Spatial Situations Similarity	Belyakov, S., Bozhenyuk, A., Isaev, A., Grigoriev, D.
	From optimisation to intelligence: Fuzzy inference-based battery energy arbitrage	Kumtepeli, V., Gövdeli, Y., ÇAKIR, E., Howey, D.
	Exploring on 2- Neighborly Irregular and Total Irregular Cubic Fuzzy Graphs	Ajay D , Beija Minnie M , Ancy Lara L., Dr. T.
	On Planarity of Spherical Fuzzy Graphs and their application to Determining the Shortest Path	Ajay D , Kavitha M , Shobanaa A , Dr. John Borg
Session: 2.11 Room: Online Room 6 Supply Chain, Logistics & Operations **Chair: G. Sahin**	Customer Loyalty Assessment under Trust Shock Conditions Based on Fuzzy Set Theory	Dadashov, S., Alekperov, R.
	Brain tumor classification using magnetic resonance imaging and convolutional neural networks	Hernandez-Reyes, M., Melin, P.
	GPT-Enabled Fuzzy Decision Support: Integrating Generative Transformers with Fuzzy Logic	Gürcan, Ö., Arı, E.
	Simulation-Based Optimization in Fuzzy Manufacturing Scheduling Towards Industry 5.0	BAŞAR, R., Engin, O.
	Learning Based Metaheuristic Algorithm for Solving the No-Wait Flow Shop Scheduling Problem	BAŞAR, R., Engin, O.
	A Flexible Simulation Based-Tabu Search for Heterogeneous Fleet Bus Scheduling	Çölbay, K., Engin, O.
Session: 2.12 Room: Online Room 7 Machine Learning & AI **Chair: F.K. Gundogdu**	Z-Number-Based Prioritization of Cyber Risks in University IT Structures under Data Scarcity	Nuriyev, A., Mammadov, I.
	Generalization of Ruspini's Approach to Fuzzy Clustering: Likeness Relations	Jaume-Martin, G., Valero, O.
	A Comparative Evaluation of Machine Learning and Regression Models for Greenhouse Gas Emission Forecasting	KUTLU GUNDOGDU, F., Aslantas, M.
	Neural Network Approaches for Speech Recognition and Synthesis	Alexandrov, A.
	Data-Driven Fuzzy Systems for Urban Microclimate Predictions.	Alexandrov, A.
	Raw Material Inventory and Warehouse Layout Optimization Under Capacity Constraints	Ceylan, B., Çamli, G., Karahan, İ., Çalışkan, D., Atac, K., Hotamışlı, A., Öner

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Schedule	**Title**	**Authors**
Session: 3.1 Room: Hagia Sophia Fuzzy MCDM & Decision Making **Chair: G. Buyukozkan**	A Proportional Intuitionistic Fuzzy AHP and EDAS Integrated PFMEA Approach for Risk Assessment in Automotive Assembly Lines	Şengül, D., Kaymaz Karahan, F.
	A Fuzzy Cognitive Mapping Approach for Modeling AI-Enabled Supply Chain Decision Ecosystems	Büyüközkan, G., Göçer, F.
	Hybrid CNN–Transformer Architectures for Multimodal Medical Imaging: Diagnosis and Survival Prediction in Glioma	Fadhel, M., Al-Shamma, O.
	Evaluating Sustainable Urban Logistics Strategies under Uncertainty: An Integrated PIFS–ARAS Decision Framework	Büyüközkan, G., Göçer, F., Feyzioglu, O.
	Self-Supervised Convolutional Neural Network Frameworks for Medical Image Analysis Under Limited Annotations	Fadhel, M., Al-Shamma, O.
Session: 3.2 Room:Maiden's Tower Intelligent Systems **Chair: S.C. Onar**	Talent 5.0 : Meta Competencies as a strategic infrastructure for Industry 5.0	Kamalakannan, N., Onar, S., Sarbazvatan, S.
	AI-driven Circular Economy Strategies for Closed-Loop Photovoltaic Supply Chain Optimization	Iseri, H., Iseri, F., Iakovou, E., Pistikopoulos, E.
	Forecasting Second-Half Match Results in Football via Artificial Neural Networks and Machine Learning: A Case Study of the Turkish Super League's Big Four Team	Değirmenci, A., Gümüş, İ., Aslan, M.
	Organizational Culture in the AI Era: A Schein-Based Framework for the Industry 5.0 Transition	Kamalakannan, N., Onar, S., Sarbazvatan, S.
Session: 3.3 Room: Galata Tower Fuzzy MCDM & Decision Making **Chair: E. Boz**	Optimizing Auditor Assignments to Assets to be Audited in GRC Using Advanced MCDM Methods: A Comparative Study	YEL, İ., Gazel, Ş.
	A Grey WENSLO-Based Weighting Model for Identifying Key Decision Criteria in Warehouse Automation Planning	Boz, E., Ayaz, H.
	UAV Deployment Decisions Under Uncertainty: A Spherical Fuzzy Analytic Hierarchy Process Application	Kılıçkaya Çakmak, G., Kutlu Gündoğdu, F.
	Extending the Alternative-by-Alternative Comparison Method to the Pythagorean Fuzzy Environment for Multi-Criteria Decision Making	Boz, E., Ayaz, H.
	An Interpretable Hybrid Deep Learning Framework for Breast Ultrasound Tumor Classification	Botchway, Y., DOGAN, R.
Session: 3.4 Room: Topkapi Palace Intelligent Systems **Chair: P. Nguyen**	Effective Monte Carlo Techniques for Pricing High-Dimensional European Options	Tranev, S., Todorov, V., Traneva, V.
	Cause–Effect Relationships of Net-Zero Readiness Barriers in Manufacturing Firms: Evidence from Vietnam	Nguyen, B., Nguyen, P., Thi Nguyen, L., Le Hoang, H.
	Intelligent Adaptive Monte Carlo Optimization for High-Dimensional Wigner Kernel Computation	Tranev, S., Todorov, V., Traneva, V.
	Exploring Image Enhancement via Bipolar Intuitionistic Fuzzy Sets—A New Perspective	Ragavendirane M S , S Dhanasekar , Reegan Jebadass J
	Numerical Estimation of Sobol Sensitivity Indices for UNI-DEM under Environmental Fuzziness	Traneva, V., Todorov, V., Tranev, S.
Session: 3.5 Room: Dolmabahce Palace Machine Learning & AI **Chair: C. Tolga**	Agentic and Explainable Intelligent Screening of Metal–Organic Frameworks for CO2 Direct Air Capture	Kurban, M., Serpedin, E., Ergün, M., Kurban, H.
	Enhancing Water Security for the Circular Economy: A fuzzy logic vs. neural network approach for rainfall classification in Andean basins	Gonzalez-Salcedo, L., Ruiz-Hurtado, A., Vargas-Franco, V.
	Intuitionistic Fuzzy Integrated Deep Learning Method for Post-Earthquake Building Damage Images Classification	Coşkun, B., Kaya Karakütük, A., Şentürk, S.
	Generalized Net Model of the Information Security Stage of an Overall Telecommunication System	Andonov, V., Poryazov, S., Saranova, E.

ONLINE	July 7-Day 1 SESSION-3 16.00-17.30	
Schedule	**Title**	**Authors**
Session: 3.6 Room: Online Room 1 Sustainability, Energy & Circular Economy **Chair: B. Tolga**	Supplier Selection Criteria Prioritization for E-Commerce Platforms	Aydin, N., Seker, S.
	A Dynamic Two-Level Z-Rule-based FMEA Framework for Predictive Maintenance Decision Support of Electric Transformers	Nuriyev, A., Jabbarova, K.
	An Explainable and Sensor Efficient Intrusion Detection System for Smart Agriculture	Dinler, A., Çağlar, B.,
	A Hybrid Particle Swarm and Ant Colony Optimization Algorithm for Resource-Constrained Project Scheduling Problems	Gümüş, İ., Değirmenci, A., Aslan, M.
	Metaheuristic Optimization of PID and Interval Type-2 Fuzzy Controllers for Water Tank Systems	M. Guajardo, H., Valdez, F.
	Climate-Physics and Fuzzy Modeling of Photovoltaic Degradation in GCC Desert Environments	Elsayed, A., Malkawi, G.
Session: 3.7 Room: Online Room 2 Machine Learning & AI **Chair: E. H. Aktas**	An intelligent statistical framework for anticancer peptite prediction via q-Value–Guided Grouping–Scoring Modelling	Parlak Sönmez, D., Bakir-Gungor, B.,
	Prioritizing AI-Augmented Requirements Engineering Phases for Legacy System Modernization Using Spherical Fuzzy AHP	Şengül, D., Takım, B.
	Supplier-Warehouse Allocation Under Uncertainty: A Fuzzy Multi-Objective Approach	Perdeci, E., Özbedel, A.,
	Grey Interpretive Structural Modelling of Risks in Digital Health Supply Chains	Tekin, E., Büyüközkan,
	Stock Price Prediction Using Differential Evolution-Optimized VMD–LSTM Model	Akkas, H., Kolukisa, B.,
	Evaluation of Humor-Based Teaching Strategies for Arabic Language Learning Using the HTFGGHM integrated with SYAI Method	RODZI, Z., Wan Abdul Rahman, W., ANAM, S.,
Session: 3.8 Room: Online Room 3 Machine Learning & AI **Chair: E. Olgac**	Prioritizing Make-or-Buy Criteria in Procurement Decisions under Uncertainty	Nguyen, P., Thi Nguyen,
	Causal Barriers to Mandatory Carbon Reporting Adoption in Vietnamese Manufacturing Firms: A Grey DEMATEL Analysis	Nguyen, B., Nguyen, P., Thi Nguyen, L., Le
	Parsimonious L1 Regularized Sparse Identification and Prediction of Tsunami Waveform Under Constrained Data Conditions	BAYINDIR, C., Ozaydin, F., ALAN, A., Namlı, B.,
	Hybrid Machine Learning–Fuzzy Ensemble Modeling for Nonlinear SAR Prediction of Opioid Ligands	Sapundzhi, F., Georgiev, S., Popstoilov, M.
	Governance-Driven Barriers to Scope 3 Carbon Reporting: A Causal Network Analysis of Manufacturing Firms in Vietnam	Nguyen, B., Nguyen, P., Thi Nguyen, L., Le Hoang, H.
	Review of the Current State of Counting Distributions of Order k	Lazarova, M., Todorov,
Session: 3.9 Room: Online Room 4 Intelligent Systems & Applications **Chair: Z.B. Kizilkan**	Sustainable Software Development Using Proportional Spherical Fuzzy AHP and EDAS Methodology	Karagöz, A., Kahraman, C.
	Application of Intuitionistic Fuzzy Graphs to the Analysis of Organizational Systems Development	Ginis, L., Bozhenyuk, A.
	Type-3 Fuzzy Classification Approach for Detecting Alzheimer's disease	Melin, P., Castillo, O.
	Clustering of UFC Fighters' Style Archetypes Using Gaussian Mixture Models on In-Fight Statistics	Sezen, H., Kaya, T.
	Intelligent Adaptive Neighborhood Control in Random Search Algorithms for Technological Process Optimization	Musayev, A., Grigoriev, D.
	An improved Whale Optimization Algorithm using a Takagi-Sugeno Fuzzy Dynamic adaptation	Amador-Angulo, L., Castillo, O.
Session: 3.10 Room: Online Room 5 Sustainability, Energy & Circular Economy **Chair: E. H. Aktas**	Explainable Strategic Decision-Making via Fuzzy Risk Assessment and Adaptive Trust	Rashid Garakhanov, R.,
	Evaluation of the Implementability of Strategic Decisions Using a Fuzzy Inference Agent	Rashid Garakhanov, R.,
	Uncertainty Management in Financial Forecasting Using Fuzzy Logic Techniques	Imamguluyev, R.
	Benchmarking Retrieval-Supported Large Language Models for Open-Domain Question Answering	Gülsoy, G., Onan, A.
	Scalable Quality: A Comparative Benchmark of Lightweight Hybrid vs. Heavyweight Retrieval Models	Gürkan, E., Onan, A.
	Zero-Shot Information Retrieval Revisited: A Comprehensive Evaluation of Large Language Models and Classical Pipelines on the BEIR Benchmark	Holt, K., Onan, A.
Session: 3.11 Room: Online Room 6 Fuzzy MCDM & Decision Making **Chair: E. Ari**	Modeling Accessibility and Social Inclusion of Persons with Disabilities Using Fuzzy Logic-Based Decision Frameworks	Mammadova, A., Gasimova, L.,
	Risks of Large Language Models Use in Corporate Settings: A PSF-AHP Application	ARI, E.
	A Hybrid Approach to Supplier Selection in PVC Manufacturing: An AHP-TOPSIS Based Multi-Criteria Decision Analysis	Yolal, G., Ergün, Y., Barakat, O., Çakan, B.,
	Prioritizing AI Adoption Strategies in Healthcare Workflows Using Interval Type-2 Fuzzy TOPSIS	Şengül, D., Sırma, A.
	On Tirado's contractions in partial fuzzy metric spaces	Aldemir, B., Aygün, H.,
	Bivariate Exploratory Screening Reveals a Compact Descriptor Set for Robust ML Prediction of Kinase Inhibitor Resistance	Deif, M., Emedeldin, F., Ahmed, M., Zaid
	LLM Guided Explainable Fuzzy Decision Support System for Suggestion Mining	Yılmaz, R., Taysi, M.,
Session: 3.12 Room: Online Room 7 Machine Learning & AI **Chair: G. Sahin**	Ladder Logic Translation using Large Language Models in Industrial Automation	Ogundare, O., Wiggins,
	Z-Neutrosophic Sets: Basic Arithmetic Operation and Centroid-based Defuzzification Method	ABD RAHMAN, N.,
	Meta-heuristics for dynamic lot sizing problem with warm cold setups	Onur, N., Gökçe, M.,
	Categorical data clustering using LLM-based embeddings	Aung, H., Dinh, T., Yue,
	AN INTELLIGENT DECISION SUPPORT SYSTEM FOR ROUTE OPTIMIZATION AND STOP SELECTION	ALTUNDAĞ, B.,
	Modular Neural Network Architecture for Aortic Pathology Diagnosis Integrating CT Imaging and Inflammatory Biomarkers	Stoyanov, D., Sotirov, S., Kornovski, V.
	Estimation of the Relationship Between Renewable Energy and Climate Variables Using Fuzzy Parameter Hybrid Models: A Comparative Analysis of XGBoost, Random Forest, and ARIMA	Özekinci, Ş., Altay, Y., İlbaş, İ.

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Schedule	**Title**	**Authors**
Session: 4.1 Room: Hagia Sophia Emerging Technologies **Chair: C. Sicakyuz**	A SERVQUAL-Based Evaluation of Hospital EV Charging Service Quality Using Intuitionistic Fuzzy Weighting	Sıcakyüz, Ç., Arslan, E.
	Emerging Technologies for Automated and Cooperative Cataloging in Libraries	Georgieva, E., Georgiev, T., Stefanova, T.
	A Decomposed Fuzzy AHP Framework for Evaluating Warehouse Slotting Strategies Under Uncertainty	Şahin, G., Cebi, S.
	Adaptive Dual Watermarking of Color Images via Genetic Algorithm–Driven Embedding for Robust Copyright Protection	Farhan, D., Hassen, O., Darwish, S., Elzoghabi, A.
	An Intelligent Dual Image Watermarking Scheme of Color Images using Quantum Wavelet Transform	Farhan, D., Hassen, O., Darwish, S., Elzoghabi, A.
Session: 4.2 Room: Maiden's Tower Fuzzy MCDM & Decision Making **Chair: E. H. Aktas**	Strategic Risk Prioritization in R&D Projects: A Hybrid Monte Carlo-Entropy-VIKOR MCDM Model	NECHITA, R., Deselnicu, D., Benţa, K., Simion, P.
	A Hybrid IVPF-AHP and TOPSIS Methodology for Sustainable Biomass Feedstock Selection in Türkiye	Haktanır Aktaş, E., Mustan, S., Namtı, B., Çılbır, Y.,
	E-SCOOTER SUPPLIER SELECTION BY PYTHAGOREAN FUZZY CRITIC INTEGRATED MOORA METHODOLOGY	Deniz, R., Sarigul, E., Komurcu, R., Koc, M., Kahraman, E.
	Decision Support Framework for Residential Energy Retrofitting by Average and Ideal Solution Benchmarking	Farid, H., Iram, S., Hill, R., Brown, P.
	An Interpretable Belief Rule-Based Model for Imbalanced Classification Using Instance-Level Complexity	Ali, M., Liu, J., Moore, S., Nibouche, O.
Session: 4.3 Room: Galata Tower Machine Learning & AI **Chair: C. Tolga**	Generative AI–Enabled Startup Success Prediction: Integrating Internal Capabilities and Social Capital for Sustainable Innovation	Kung, C., JIN, B., Li, Y.
	Quantum-Fuzzy Neural Networks: Trends, Applications, and Future Directions	ÇAKIR, E., Tolga, C.
	Metaheuristic-Optimized Artificial Neural Networks for Earthquake Magnitude Prediction: A Comparison of GA-ANN and PSO-ANN Models	Çaparoğlu, Ö., OK, Y., ÇAĞLAYAN ÖZAYDIN, N.
	Enhancing Unit Test Quality through Agentic RAG: A Self-Correcting Approach vs. Pre-trained LLMs	Çalışkan, E., Soygazi, F., Sevimgin, O.
	SmartDose: An Intelligent Closed-Loop Syringe Pump Using Real-Time ECG and SpO2 Feedback	Mohamed, S., DOGAN, R.
Session: 4.4 Room: Topkapi Palace Machine Learning & AI **Chair: A. Alazzam**	A multi-frame data analysis model to enhance business profitability.	Alazzam, A.
	Hybrid Fuzzy MCDM Approach for Prioritization and Scheduling of GRC Audit Tasks	YEL, İ.
	From Fuzzy Rules to Econometric Modeling: Reinterpreting Anchor Object Identification in Tourism Clusters	Rzayev, R., Rzayeva, I.
	On the Empirical Evaluation of Adequacy Criteria in Image Recognition	Rzayev, R., Aliyev, O.
	Fuzzy b-Metrics for Bilateral Image Filtering	Onbaşıoğlu Altuhovs, Ş., Pazar Varol, B., Akbulut, O.
Session: 4.5 Room: Dolmabahce Palace Special Session: Intelligent Algorithms for Decision Making Under Uncertainty in Autonomous and Intelligent System **Chair: V. Todorov**	Intuitionistic Fuzzy Ensemble of Pre-Trained Large Language Models for Multi-Asset Financial Sentiment Classification	Stefanova, T., Georgiev, S.
	An AI-Driven Web Platform for Intuitionistic Fuzzy Analytics: IFANOVA-Based Educational Performance Assessment	Traneva, V., Petrov, P., Tranev, S., Todorov, V., Yovcheva, P.
	Intelligent Scrambled Quasi-Monte Carlo Methods for Global Sensitivity Estimation	Todorov, V., Zhivkov, P., Georgiev, S., Sapundzhi, F., Traneva, V., Tranev, S., Lazarova, M., Todorov, M., Kovachev, N., Nikolaev, I., Georgiev, G.
	A Short Comparative Study of Stochastic Integration Methods for High-Dimensional Bayesian Problems	Todorov, V., Georgiev, I., Sapundzhi, F., Tranev, S., Traneva, V.
	Intelligent Development and Application of a Drawdown Measure for Optimizing a Precious Metals Portfolio	Georgiev, S., Idirizov, B.

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Schedule	**Title**	**Authors**
Session: 4.6 Room: Online Room 1 Machine Decision-Making Utilizing Fuzzy & Intelligent Systems for Sustainable & Circular Economy **Chair: A. Degirmenci**	Modeling Entrepreneurial Governance Structures in Higher Education Institutions Using Fuzzy Logic	Bayramov, E., Bayramova, G.
	Consumer-Based Ranking of Circular Economy Attributes in Fermented Dairy Packaging – An Intuitionistic Fuzzy Approach	Jefmański, B., Krzywonos, M., Ankiel, M., Halagarda, M., Pachołek,
	Machine learning-based intelligent analysis of dynamic vibration signals	Anarbek, D., Akanova, A., Ospanova, N., Anarbekova, G.,
	Detecting Imminent Crowd Stampedes Using Topological Deep Learning in Visual Surveillance	Mondal, A., Khan, M., M, N., L, C., Premlal, A., V, R.
	A Hybrid Intuitionistic Fuzzy MCDM Approach to Mitigating Trade Barriers for the Circular Economy Transition in EV Sector	GARAI, T., Oliveira, O., Liou, J., Mondal, H., Alam, S.
	Development the dialogue of an intelligent agent using the RLHF method using the example of the problem area of televeterinary science	Guskov, G., Zaineev, R., Shcherbina, A., Yarushkina, N.
Session: 4.7 Room: Online Room 2 Sustainability, Energy & Circular Economy **Chair: U. Cinar**	A Fuzzy Logic Framework for Modelling Linguistic Uncertainty in Multilingual NLP Systems	Imamguluyev, R.
	A Hybrid Intelligent Framework for Methane Explosion Risk Assessment in Underground Mines Using ANFIS and Spherical Fuzzy MARCOS	CINAR, U., BARISIK, T., GULBAY, M.
	Knowledge Distillation for Biomedical Disease Named Entity Recognition with Improved BIO Tag Consistency	Toprak, A., Onan, A.
	MA-RAG: A Training-Free Multi-Agent Retrieval-Augmented Generation Pipeline with Unified Benchmarking	Uysal, H., Onan, A.
	A Fuzzy PFMEA Framework for Quality Risk Assessment in Lithium-Ion Battery Manufacturing	Şengül, D., Emecen, G.
	Time Adaptive Retrieval-Augmented Generation for Turkish Legal Question Answering	Uysal, A., Onan, A.
Session: 4.8 Room: Online Room 3 Machine Learning & AI **Chair: E. Ari**	Extension methods of implications on bounded lattices	Ertuğrul, U., Karaçal, F., Karacair, K.
	Distributed Multi-Agent Traffic Control with Fuzzy Perception and Autoepistemic Reasoning	Ghyzlane, C., Karim, L., El bouziri, A.
	A systematic approach to predicting acceptance of banking products using neural networks, ensemble models, and explainability techniques	Ortiz, K., Encalada, A., Hurtado, R.
	AI-Driven Circular Manufacturing Systems: Enabling Circular Economy through Predictive & Generative AI	BOUYAJLANE, O., Sekkat, S., Cherrafi, A.
	An Applied Cloud Architecture for Intelligent Data-Driven Financial Systems in SMEs	Eren, E., Kızıl, Ç., Ekinci, C.
	Integrating Fuzzy Logic with Machine Learning for JIRA Issue Priority Prediction: A Comprehensive Experimental Study	YILMAZ, Ü., ALSAÇ, A., KOÇOĞLU, F.
Session: 4.9 Room: Online Room 4 Machine Learning & AI **Chair: S. Kadikoylu**	Novel Hesitant Fuzzy Linguistic Term Sets Based Full Consistency Method and an Application to the Evaluation of the Factors Affecting MCDM Method Selection	Tüysüz, N., Tüysüz, F.
	A Study on Intelligent Bounds for the Type II Simple Assembly Line Balancing Problem	Uyar, C., Kandiller, L.
	Data-Driven Natural Language Generation: Automated Report Writing for Fortune 500 Companies Using Structured Datasets	HABEEB, R., Idoko, J.
	Clustering-Based Reverse Logistics Network Design for End-of-Life Management of Solar Photovoltaics	Iseri, F., Iseri, H., Iakovou, E., Pistikopoulos, S.
	A Data-Driven Intelligent System for Workforce Performance Forecasting in Knowledge-Intensive Organizations	Hema A , Prabadevi M.N.
	Enhancing Cyber Security in IoV Systems Using Blockchain and Timed Efficient Stream Loss-tolerant Authentication Protocol	Albawi, M., Jassim, D.
Session: 4.10 Room: Online Room 5 Machine Learning & AI **Chair: I. Otay**	Intuitionistic Trapezoidal Fuzzy CUSUM Control Chart: Temperature Data Application	Ercan-Teksen, H., Davarcı, G.
	A Conceptual Overview to Intelligent Shelf Optimization	Gunduz Mengubas, G., Senvar, O.
	Prioritizing Core AI Ethics Principles Under Uncertainty: A Spherical Fuzzy Best-Worst Method with a Score-Based Consistency Index	Kanmaz, A., Ertuğrul, İ.
	Dataset Structure and Large Language Model Scale: Interaction Effects on RAG-Based Multi-Hop Question Answering	Aksoy, N., Ünalır, M.
	A Presence-Absence Synthesis (PAS)-Based Approach for Workforce Task Assignment Using a Logarithmic Scoring Function	Bal, M., Uçal Sarı, İ., Kabak, Ö.
	FrugalXAI: Explanation-Aware Distillation for TinyML Waste Classification	Bildirici, F., Seçkin Codal, K.
Session: 4.11 Room: Online Room 6 Finance, Risk & Business Analytics **Chair: I. Gumus**	Modeling Linguistic Uncertainty in German Language Structures Using Fuzzy Logic Approaches	Jumayeva, L.
	The Use of Large Multi-Modal Deep Learning Methods in E-commerce for Intelligent Document Processing	Morkoç, C., Kurban, E., Çakan, K., Kadakal, H., Çakır, M.
	Risk factors for money laundering: application of IT controls in financial control in Bulgaria	Kostova, S., Zhelev, Z.
	Cost-Sensitive Credit Card Fraud Detection via Sparse Autoencoder and Gradient Boosting Hybrid Architecture	İPEK, M., SALUR, M.
	Assessing Factors Affecting Fire Suppression Difficulty Using Fuzzy DEMATEL	Yilmaz, H., Yanik, S.
	Hallucination Detection Using Independent Signal Metrics in RAG-Based Systems	Çelik Öğütmen, E., CANLI, H.
Session: 4.12 Room: Online Room 7 Machine Learning & AI **Chair: N. Alkan**	A Fuzzy Multi-criteria Decision Framework for Open Data-Driven Decision-Making	Tahiduzzaman, M., Ura, S.
	Fuzzy-based Unsupervised Explainable Dimensionality Reduction Method for Categorical and Discretized Numerical Data	KUDERHA, A., Iheanetu, O.
	Evaluating the Impact of Artificial Intelligence on Teachers' Pedagogical Activities Using a Fuzzy Logic Decision Model	Salimova, F., Eyvazli, G.
	Comparison of Entropies of Molecular Dynamic Simu- lation of Deuterium Plasma Sputtering on TiB2 Crystals by using Fuzzy Decision Process	Pahsa, A.
	A Fuzzy Delphi Validation of Leadership Values for Ethical and Sustainable AI Governance	AHMAD, N., Ismail, A., Yaakob, M.
	An Adaptive Fuzzy Transformer Network for Multivariate Time Series Anomaly Detection	Caliskan Demir, M., Nabney, I., Taskin, A.

ONSITE	July 8-Day 2 SESSION-5 14.00-15.30	
Schedule	**Title**	**Authors**
Session: 5.1 Room: Hagia Sophia Sustainability, Energy & Circular Economy **Chair: Tranev, S.**	Circular Temporal Intuitionistic Fuzzy Regression for Business Performance Analysis	Traneva, V., Tranev, S.
	A Piecewise Intuitionistic Fuzzy Framework for Modeling the CC–CV Transition in Li-Ion Battery Charging	Traneva, V., Todorova, S., Tranev, S.
	Fundamentals of Artificial Intelligence: From the Evolution of Ideas to the Quest for Certainty	Alizadeh, A., Mardanov, M., Aliyev, E., Rzayev, R.
	A Modified Neutrosophic Clustering Approach Boosted by Latent Semantic Analysis for Trending Topics' Classification of Web Documents	Noman, B., Hassen, O., Darwish, S., Ibrahim, R.
	Circular Intuitionistic Fuzzy Modeling of Humanoid Robot Mouth Expressions from Expert Evaluations	Tranev, S., Traneva, V., Ribagin, S.
Session: 5.2 Room: Maiden's Tower Intelligent Systems & Applications **Chair: S. Cebi**	Performance Analysis of a Single-Input General Type-2 Fuzzy PD Controller Under Apex Point Variations	Şahin, I., Ulu, C.
	A Systematic Literature Review on Fuzzy Approaches in Hub Location Selection	Şahin, G., Cebi, S.
	Circular Economy Overview for Olive Oil Supply Chain Management: A Comparative Analysis for Spanish Extra Virgin Olive Oil Price Forecasting Based on Fuzzy Neural Networks	KANTARCI SAVAŞ, S.
	A Novel Fuzzy Inference System and Its Application in Traction Power Control	EKMEKCİ, D., ALTINKAYA, H.
	Thematic Structure of Sustainable Last-Mile Logistics: Topic Modeling and Keyword Analysis	Bakkal, S., Kaya, A.
Session: 5.3 Room: Galata Tower Fuzzy Theory & Mathematics **Chair: V. Atanassova**	A Comparative Study of Normalization Techniques in the TOPSIS Method	Köseoğlu, A.
	Prioritization of Climate Change Adaptation Measures for Cities Using the Proportional Spherical Fuzzy CODAS Method	ALKAN, N.
	A Cross-Paradigm Bibliometric Analysis of Fuzzy Set Extensions: Evolution, Trends, and Application Domains (2002–2024)	Konur Bilgen, M.
	Performance Evaluation of a Modified Interval Type-2 Fuzzy Logic Controller for Urban Traffic Signal Control	Shaheen, S., Qadri, S., Riaz, M., Dvorský, J.
	Intuitionistic Fuzzy Sets in Retrospective and Perspective: Forty Years Since Atanassov's Landmark Paper	Atanassova, V.
Session: 5.4 Room: Topkapi Palace Optimization & AI **Chair: B. Öztayşi**	T-Norm Based Picture Fuzzy Subgroup Homomorphisms	Deniz, Ü.
	Strategic Procurement Capabilities in Emerging Economy Using Spherical Fuzzy MCDM Approach	Nguyen, P., Thi Nguyen, L.
	Not All Predictions Are Equal: Uncertainty-Aware Machine Learning for Fatigue Strength Prediction	Bhat, S.
	Measuring Mobility Orientation in Public Transport Satisfaction: Evidence from a Fuzzy Pseudo-Panel Approach	Erdinc, G.
Session: 5.5 Room: Dolmabahce Palace Fuzzy MCDM & Decision Making **Chair: Ö. Arslan**	An Integrated Intuitionistic Fuzzy SIWEC–RAWEC Framework for Multi-Criteria Decision-Making Under Uncertainty	Farhad, A., Ullah, K.
	Regime-Dependent Fuzzy Inference System for Quantifying the Impact of Economic Advisors on S&P 500 Performance: Fuzzy Advisor Impact Index - FAII	Göz, U., Özdemir, G.
	Remaining Useful Life Prediction via Semi-supervised Learning	Caglayanlar, H., Avci, U.
	Integrated Optimization of Waste Collection and Recycling Networks for Circular Economy Systems	Arslan, Ö., Erişkin, L.

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	Fuzzy Logic Based Modeling of Systemic Interdisciplinary Polysemy in Intelligent Language	Imamguluyev, R.,
	Intelligent Development of an Order Management System for Robust Decision Making under Uncertainty	Hadzhiivanov, S., Georgiev, S.,
	Fuzzy Logic–Based Assessment of Gender Equality in Azerbaijan	Imamguluyev, R.,
	An Intelligent Fuzzy SMED-Based Framework for Setup Time Reduction in CNC Machining	Ucal Sari, I., Korkusuz
	Deterministic Order Management System for Reliable Trading under Uncertainty – Part 2	Hadzhiivanov, S.,
Session: 5.7 Room: Online Room 2 Education, Language & Social Systems **Chair: Z.B. Kizilkan**	Contextual vs. Classical Modeling for Sentiment Analysis in Morphologically Rich Languages: A Turkish Case Study	Kiraz, K., Celik, Z., Bakal, G.
	Evaluating Criminal Justice Effectiveness Using a Fuzzy Logic Decision Model	Abbasova, M.,
	An Adaptive Neuro-Fuzzy Inference System (ANFIS) model for predicting MHD Burgers Fluid Flow with Bioconvectional effects on an Exponentially Stretching Surface	Lakshana R , David Maxim Gururaj
	Flood Detection and Flood Routing by Plithogenic Probability using Interval Valued Neutrosophic Fuzzy Numbers with Time	Begum, M., Nasir, V., Barakath, A.
	A Fuzzy Mamdani Framework for Assessing Compound Meteorological and Agricultural Droughts	TERZİ, T., BÖLÜKBAŞI, İ.,
	PNTOPSISForge: A Decision Support Framework for Ranking Alternatives Based on Pythagorean Neutrosophic TOPSIS	RODZI, Z., Mohammad Kamari, M., RAZAK, S.
Session: 5.8 Room: Online Room 3 Machine Learning & AI **Chair: E. Cakir**	A Genetic Algorithm Approach for Optimizing Reconfigurable Supply Chains	Sioud, R., Nadia, H.,
	Aggregation functions of mathematical structures under a categorical perspective	Fructuoso-Bonet, A.,
	Application of decomposition integrals in combined cycle power plants: A case study	Abbas, J., Dhafer Al-
	Credit Card Fraud Detection Using Basic and Ensemble Machine Learning Algorithms with Cost-Sensitive Learning and Regularization Techniques for Imbalanced Datasets	Tekin, A., Güler, E.
	Explainable Deep Learning for Brain Tumor Classification: A Comparative Evaluation of CNN and Transformer Architectures	Etcil, M., Kurban, R.
	Optimizing Disposable and Reusable PPE Usage Considering Environmental Impacts: A Multi-Objective Optimization Model	Akgün, M., Nacar, E.
Session: 5.9 Room: Online Room 4 Machine Learning & AI **Chair: E. Olgac**	Navigating Multiculturalism through Fuzzy Logic: The Complexity of Hybrid Identities in British Immigrant Literature	Gahraman, A.
	Color Optical Computing Based on Symmetrical Ternary Logic	Timchenko, V.
	Tracking the Dynamics of a Simulated Myocardial Infarction in a System Dynamics Model of the Human Circulatory System Using Kolmogorov-Chaitin Complexity	Iapascurta, V.
	Using fuzzistics for prediction based on Z-regressions	Poleshchuk, O.
	Enhancing Pathway–Disease Gene Group Modeling with PathDisGene: A Multi-Algorithm Machine Learning Framework	Qumsiyeh, E., Voskergian, D., Bakir-
	Modeling Pragmatic Influence in British Newspaper Discourse Using Fuzzy Logic	Suleymanova, A.
Session: 5.10 Room: Online Room 5 Sustainability, Energy & Circular Economy **Chair: B. Tolga**	Comparing the Performances of Machine Learning Algorithms to Predict Platinum Prices	Acikgoz, E., Taş, O.,
	Comparison of ANFIS and GRU in Time Series Prediction of Hydrodynamic Properties of NREL 5 MW Wind Turbine	Namlı, B., BAYINDIR, C., Ozaydin, F., ALAN,
	Forecasting The Hydrodynamic Characteristics of The NREL 5 MW Jacket Platform Under Rogue Wave Effects By Using ANFIS	Namlı, B., BAYINDIR, C., Ozaydin, F., ALAN,
	LSTM Analysis of a Shoreline Evolution for a Rectangular Beach Nourishment	Alan, A., Bayındır, C.,
	Spatio-Temporal Traffic Forecasting via a Federated GraphConv-BiLSTM Architecture	ÖZTAN, A., Arslan, S.,
	Benchmarking Retrieval Strategies for Long-Document Summarization	Karimli, I., Onan, A.
Session: 5.11 Room: Online Room 6 Fuzzy Theory & Mathematics **Chair: I.Gumus**	A Fuzzy Logic–Based Analysis of the Reasons for Using Extinct Languages in a Globalized World	Gadimova, L.
	Logical Theories for Fuzzy Systems Employing Zadeh Operators and Fodor Implication	Sakharov, A.
	Spherical Single-Valued Neutrosophic CoCoSo Approach and Its Application to Wind Turbine Selection	Bozyiğit, M.
	Uncertainty Modelling with Linguistic Belief Entropy in MCDM	başkan, E., Şahin, R.
	A new method for constructing triangular norms on bounded lattice	Çaylı, G.
	Artificial Intelligence-Based Approaches for Medical Image Analysis	Hajieva, S.
Session: 5.12 Room: Online Room 7 Intelligent Systems & Applications **Chair: S.Kadikoylu**	BPNS-Based Aggregation and the ARIE Method for Multi-Criteria Decision-Making	FAUZI, N., RODZI, Z.,
	Fuzzy Multi-Criteria Assessment of ESG Performance and Carbon Efficiency: A Case Study of TSMC (2022–2024)	Huang, Y.
	Fuzzy Logic Approaches to Resolving Syntactic Ambiguity in Sentence Parsing and Hedging Expressions	Khanbutayeva, L.
	Hate Speech Annotation Enhancement Using Parrot's Emotions Model and Fuzzy Signatures	Almahasneh, R.
	Spatiotemporal Peak Load Forecasting for Microgrids Based on a Hybrid GCN-LSTM Model	Duong, N.
	Fuzzy-Evidential Regression	Lepskiy, A.

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