Aug. 24, 2021 (DAY 1)

UTC+3 10:00-10:40	**Opening Ceremony**	**Meeting Lin** https://itu-edu-tr.zoom.us/j/97425827667
UTC+3 10:50-11:35	**INVITED SPEAKERS**	**Speech of Prof. Krassimir Atanassov on "*Temporal-level operators over intuitionistic fuzzy sets*"** *Session Chair: Prof. Sezi Cevik Onar* — *Meeting Link:* https://itu-edu-tr.zoom.us/j/91235284353
UTC+3 11:40-12:25		**Speech of Prof. Ajith Abraham "*Industry 4.0 and Society 5.0: Role of Approximate Reasoning in Intelligent Data Analysis*"** *Session Chair: Prof. Selcuk Cebi* — *Meeting Link:* https://itu-edu-tr.zoom.us/j/91235284353
UTC+3 12:30-13:15		**Speech of Prof. Janusz Kacprzyk "*Towards more realistic fuzzy decision making and optimization models reflecting human cognitive biases*"** *Session Chair: Assoc. Prof. Irem Ucal Sari* — *Meeting Link:* https://itu-edu-tr.zoom.us/j/91235284353
UTC+3 13:15-13:30	*A visit to Turkey: video display - Lunch Break*	

Aug. 24, 2021 (DAY 1) Parallel Session 1

UTC+3 13:30-15:00	Session Chair	Basar Oztaysi-Onur Doğan (oztaysib@itu.edu.tr, onur.dogan@bakircay.edu.tr)	Meeting Link:
	Session Name	SS1.1 Fuzzy Clustering	https://itu-edu-tr.zoom.us/j/91291091118
	Paper Title		Authors
	Smart Digital Twin-Based Bearing Fault Pattern Recognition		Farzin Piltan and Jong-Myon Kim
	Fuzzy Cluster analysis of Claustrophobia questionnaire data in Iranian male and female educated populations		Dunya Moradi, Reza Eyvazpour, Seyed Amir Tabatabaei Hosseini, Yaser Donyatalab, Fariborz Rahimi
	Data Driven Approach to Order Picking Time Prediction Using Fuzzy Clustering and ANN		Özgür Kabak, Nurullah Güleç
	A Comparative Analysis of Fuzzy C-Means, K-Means, and K-Medoids Clustering Algorithms for Analysis Countries' COVID-1		Ömer Nedim Kenger, Eren Ozceylan

Aug. 24, 2021 (DAY 1) Parallel Session 2

UTC+3 13:30-15:00	Session Chair	A. Cagri Tolga-Ali Karasan (ctolga@gsu.edu.tr, akarasan@yildiz.edu.tr)	Meeting Link:
	Session Name	SS2.1 Fuzzy Financial and Economic Analysis	https://itu-edu-tr.zoom.us/j/99098012174
	Paper Title		Authors
	Fuzzy Matrix Aggregate Calculator (MAC) as a Tool For Economic Systems Express Evaluation		A. O. Nedosekin, Z. I. Abdoulaeva, M. S. Kokorin, and A. E. Zhuk
	A Credibilistic Real Option Model with an Optimism-Pessimism Measure using Trapezoidal Fuzzy Numbers		Irina Georgescu, Jani Kinnunen
	The Economic Resilience Evaluation Using Fuzzy Sets & Soft Computing		A. O. Nedosekin, Z. I. Abdoulaeva, N. A. Karpenko, and T. A. Nikitina
	A Novel 2-Tuple SAW-MAIRCA Method for Partner Evaluation for Circular Economy		Gülçin Büyüközkan, Deniz Uztürk
	Determination of the level of development of commodity markets by segmentation of economic regions based on the theor		Rena Mikayilova, Ramiz Alekperov

Aug. 24, 2021 (DAY 1) Parallel Session 3

UTC+3 13:30-15:00	Session Chair	Serhat Aydın- Nurşah Alkan (saydin3@msu.hho.edu.tr, nalkan@itu.edu.tr)	Meeting Link:
	Session Name	SS3.1 Fuzzy Inference Systems	https://itu-edu-tr.zoom.us/j/93661058735
	Paper Title		Authors
	COVID19 Infectious Disease Detection and Diagnosis System Using Case-Based Reasoning and Fuzzy Logic Inference Model		Hussaine D. Ibrahim and Timothy O. Odedele
	Application of the Fuzzy Inference System to Evaluate the Quality of Air Textured Warp Yarn		Umutgül Bulut, Eren Ozceylan
	Separating Agricultural Goods with Image Processing and Fuzzy Inference Systems		Batuhan Atasoy, Ezgi Demir, Çağrı Aksu
	Evaluation of Neural Fuzzy Inference System and ML Algorithms for Prediction of Nifty Large Cap Companies based Stock V		Bhupinder Singh and Santosh Kumar Henge
	Adaptive-neuro Fuzzy Inference System for CO2 Emissions Data		Lazim Abdullah, Herrini Mohd Pauzi

Aug. 24, 2021 (DAY 1) Parallel Session 4			
UTC+3 13:30-15:00	**Session Chair**	**engiz Kahraman-Fatma Kutlu Gündoğdu (kahramanc@itu.edu.tr, fatmakutlugundogdu@gmail.con**	**Meeting Link:**
	Session Name	**SS4.1 Fuzzy Mathematics**	https://itu-edu-tr.zoom.us/j/95630871297
	Paper Title		**Authors**
	Finding the Fuzzy Set of Bases of Fuzzy Temporal Graph		Alexander Bozhenyuk, Marina Belyakova, Olesiya Kosenko, Margarita Knyazeva
	Intelligent decision making using fuzzy logic: comparative analysis of using different intersection and union operators		Andrii Shekhevtsov, Bartłomiej Kizielewicz, Wojciech Sałabun
	Entropy on fuzzy Gγ-equivalence relations' lattice		Azedine Boulmakoul, Maroua Razzouqi, Lamia Karim, Ahmed Lbath
	Harmonization and Systematization of Categorical Propositions by Fuzzy Quantification		Yinsheng Zhang
Aug. 24, 2021 (DAY 1) Parallel Session 5			
UTC+3 13:30-15:00	**Session Chair**	**Irem Ucal Sari-Veysel Coban (ucal@itu.edu.tr, veysel.coban@bilecik.edu.tr)**	**Meeting Link:**
	Session Name	**SS6.1 Fuzzy Optimization**	https://itu-edu-tr.zoom.us/j/94872455036
	Paper Title		**Authors**
	Generalized Fuzzy Entropy Optimization Methods for Fuzzy Data Analysis		Nihal İnce
	Evolutionary Approach to the Optimal Design of Fuzzy Controllers for Trajectory Tracking		Alejandra Mancilla, Oscar Castillo, Mario Garcia Valdez
	A Novel Method for Prize Collecting Traveling Salesman Problem with Time Windows		Onur Doğan, Ali Fuat Alkaya
	Industrial Asset Optimization based on example of Digital Twin for Fired Heaters Asset Category		Nodirbek Yusupbekov, Fakhritdin Abdurasulov, Farukh Adilov, Arsen Ivanyan
	Enhanced Salp Swarm Algorithm for Feature Selection		Nebojsa Bacanin, Aleksandar Petrovic, Miodrag Zivkovic, Timea Bezdan, Amit Chabba
COFFEE BREAK			
Aug. 24, 2021 (DAY 1) Parallel Session 1			
UTC+3 15:15-16:45	**Session Chair**	**Ozlem Senvar-Nurşah Alkan (ozlem.senvar@marmara.edu.tr, nalkan@itu.edu.tr)**	**Meeting Link:**
	Session Name	**SS5.1 Fuzzy Multi-Criteria Decision-Making**	https://itu-edu-tr.zoom.us/j/94582098042
	Paper Title		**Authors**
	Green Hospital Attributes' Prioritization Using A Fuzzy Analytic Network Process(F-Anp)-Based Method		Aziz Kemal Konyalıoğlu, Tuğçe Beldek, Hatice Camgöz Akdağ
	A Case Study for Evaluating E-Commerce Websites Using Integrated Fuzzy AHP and Fuzzy TOPSIS		Ayça Altıntaşlı, Melis Temiz, Ozlem Senvar
	Hospital Type Location Allocation Decisions by using Pythagorean Fuzzy Sets Composition: A case study of COVID-19		Ibrahim Yilmaz, Yağmur Arıöz, Cihat Öztürk, Abdullah Yildizbasi
	Evaluation of Clean Energy Alternatives with HFL MCDM Methods		Esin Mukul, Merve Güler, Gülçin Büyüközkan
	A Hybrid Method with Text Mining and Multi-Criteria Decision Making for E-Commerce Considering Online Reviews		Nurnadiah Zamri, Mohammad Ammar Pairan, Lazim Abdullah
Aug. 24, 2021 (DAY 1) Parallel Session 2			
UTC+3 15:15-16:45	**Session Chair**	**engiz Kahraman-Fatma Kutlu Gündoğdu(kahramanc@itu.edu.tr, fatmakutlugundogdu@gmail.con**	**Meeting Link:**
	Session Name	**SS11.1 New Extensions: Spherical & Picture Fuzzy Sets in Decision Making**	https://itu-edu-tr.zoom.us/j/96377689508
	Paper Title		**Authors**
	Spherical fuzzy CRITIC Method: Prioritizing Supplier Selection Criteria		Cengiz Kahraman, Basar Oztaysi, Sezi Cevik Onar,
	Spherical Fuzzy REGIME Method Waste Disposal Location Selection		Basar Oztaysi, Sezi Cevik Onar, Cengiz Kahraman
	Evaluation of Suppliers in the Perspective of Digital Transformation: A Spherical Fuzzy TOPSIS Approach		Serhat Aydin, Ahmet Aktaş, Mehmet Kabak
	Picture Fuzzy Edas Method For Team Leader Selection In International Audit Firm		Nihan Tirmikcioglu Cinar
	Spherical fuzzy linear assignment with objective weighting concept in the sustainable supply chain of aviation fuel		Yaser Donyatalab, Fariba Farid
Aug. 24, 2021 (DAY 1) Parallel Session 3			
UTC+3 15:15-16:45	**Session Chair**	**Irem Ucal Sari-Onur Doğan (ucal@itu.edu.tr, onur.dogan@bakircay.edu.tr)**	**Meeting Link:**
	Session Name	**SS10.1 Image Processing**	https://itu-edu-tr.zoom.us/j/91854910740
	Paper Title		**Authors**
	Weapon Detection Using Radar Cross Section (RCS) And RESNET50 Towards Improved Decision Accuracy		Collins Ineneji, Mehmet Kusaf
	Color image segmentation using distance functions based on aggregation of pixels colors		Nebojsa Ralevic, Ljubo Nedovic, Lidija Krstanovic, Vladimir Ilic, Dorde Dragic
	Multi-Pose Face Recognition Based on TP-GAN		Wenjun Yu, Fei Chen, and Jaeho Choi
	Hybrid system for copy move forgery detection in image		Natasa Milosavljevic, Nebojsa Ralevic, Lidija Čomić, Andrija Blesic

	Image filtering using fuzzy S−metrics	Nebojsa Ralevic, Danijela Karaklic, Marija Paunovic, Dejan Čebić
	Aug. 24, 2021 (DAY 1) Parallel Session 4	
UTC+3 15:15-16:45	***Session Chair***	***Sezi Cevik Onar-Eda Bolturk (sezi@outlook.com, bolturk@itu.edu.tr)*** ***Meeting Link:***
	Session Name	***SS13.1 Prediction and Estimation*** https://itu-edu-tr.zoom.us/j/97127128175
	Paper Title	***Authors***
	A Novel Feature to Predict Buggy Changes in a Software System	Rahime Yılmaz, Yağız Nalçakan, Elif Haktanır
	Sate Prediction of Chaotic Time-Series Systems Using Autoregressive Integrated with Adaptive Network-Fuzzy	Farzin Piltan,and Jong-Myon Kim
	Drivers of Entrepreneurial Activity at Micro and Meso Levels: A Fuzzy Time-Series Analysis	Jani Kinnunen, Irina Georgescu, Zahra Hosseini
	A fuzzimetric predictive analytics Model to reduce emotional stock trading	Issam Kouatli and Mahmoud Arayssi
	Forecasting Sovereign Credit Ratings Using Differential Evolution and Logic Aggregation in IBA Framework	Srdjan Jelinek, Pavle Milošević, Aleksandar Rakićević, Bratislav Petrović
	Aug. 24, 2021 (DAY 1) Parallel Session 5	
UTC+3 15:15-16:45	***Session Chair***	***Sukran Seker-Elif Haktanır (sseker@yildiz.edu.tr, elif.haktanir@altinbas.edu.tr)*** ***Meeting Link:***
	Session Name	***SS6.2 Fuzzy Optimization*** https://itu-edu-tr.zoom.us/j/98399497491
	Paper Title	***Authors***
	Stabilization of a D.C. Motor Speed Controller using Type-1 Fuzzy Logic Systems designed with the Chicken Search Optimiz	Leticia Amador-Angulo, Oscar Castillo
	Fuzzy Models of Game theory in the Information Security Management System of Agricultural Enterprises	Valentyn V. Nekhai, Mariia Dorosh, Elena Trunova,Valentyn A. Nekhai
	A Fuzzy Modeling for Time Constrained Vehicle Routing Problem	Esra Çakir, Ziya Ulukan, Cengiz Kahraman
	Application Of Firefly Algorithm To Improve SVC Controllers To Maintain Voltage Reliability In The power system connecte	Huu Vinh Nguyen, Van Tri Bui, Hung Nguyen, Dinh Nhon Truong
	Dynamic Optimal Parameter Setting with Fuzzy Argument to Metaheuristic Algorithm Variant for Fuzzy Tracking Controlle	Felizardo Cuevas, Oscar Castillo, Prometeo Cortes-Antonio

Aug 25, 2021 (DAY 2)

UTC+3 10:00-10:45	**INVITED SPEAKERS**	**Speech of Prof. Vicenc Torra "*Engineering aggregation functions: Ten necessary properties and andness-directedness*"**
		Session Chair: Prof. A. Cagri Tolga ***Meeting Link:*** https://itu-edu-tr.zoom.us/j/98058872428
UTC+3 10:50-11:35		**Speech of Prof. Ahmet Fahri Özok on "*Fuzzy Set Theory and the Social Sciences*"**
		Session Chair: Prof. Basar Oztaysi ***Meeting*** https://itu-edu-tr.zoom.us/j/98058872428
	COFFEE BREAK	
	Aug. 25, 2021 (DAY 2) Parallel Session 1	
UTC+3 11:45-13:15	***Session Chair***	***Basar Oztaysi-Onur Doğan (oztaysib@itu.edu.tr, onur.dogan@bakircay.edu.tr)*** ***Meeting Link:***
	Session Name	***SS4.2 Fuzzy Mathematics*** https://itu-edu-tr.zoom.us/j/92422214122
	Paper Title	***Authors***
	Hierarchical decomposition by means of fuzzy simplicial complexes	Azedine Boulmakoul, Hafsaa Ouifak, Lamia Karim, Ahmed Lbath
	Betweenness Centrality in Sparse Real World and Wireless Multi-Hop Networks	Atakan Tuzcu, Hilal Arslan
	Algorithms for Robust Stabilization of a Linear Uncertain Dynamic Object Based on an Iterative algorithm	Nodirbek Yusupbekov, Igamberdiev Husan, Mamirov Uktam
	Dealing with the uncertainty between the text content and the categories by a proposed wavelet similarity metric	İlknur Dönmez, Zafer Aslan
	A New Similarity Measure for Single Valued Neutrosophic Sets	Muhammad Jabir Khan, Poom Kumam
	Aug. 25, 2021 (DAY 2) Parallel Session 2	
	Session Chair	***Irem Otay-Ali Karasan (irem.otay@bilgi.edu.tr, akarasan@yildiz.edu.tr)*** ***Meeting Link:***
	Session Name	***SS6.4 Fuzzy Optimization*** https://itu-edu-tr.zoom.us/j/91234324827

UTC+3 11:45-13:15	**Paper Title**	**Authors**
	Designing a new supply chain network considering transportation delays using meta-heuristics	Vivek Kumar Chouhan, Fariba Godarzian, Mahmood Esfandiari, Ajith Abraham
	A revised model for fuzzy multi choice goal programming	S. H. Nasseri, M. Ziaseraji, Fariba Goodarzian, and Ajith Abraham
	Diagnosis Of Breast Cancer Using Novel Hybrid Approaches With Genetic Algorithm	Ebru Pekel Özmen, Tuncay Ozcan
	Using the IAB Contents Taxonomy and Optimal Lifting for Efficient Audience Extension	Dmitry Frolov, Zina Taran, Boris Mirkin
	A New Cuckoo Search Algorithm Using Interval Type-2 Fuzzy Logic for Dynamic Parameter Adaptation	Maribel Guerrero-Luis, Fevrier Valdez, Oscar Castillo
Aug. 25, 2021 (DAY 2) Parallel Session 3		
UTC+3 11:45-13:15	**Session Chair**	***A. Cagri Tolga-Esra Ilbahar (ctolga@gsu.edu.tr, esrailbahar@gmail.com)*** **Meeting Link:**
	Session Name	***SS9.1 Hesitant Fuzzy Sets*** https://itu-edu-tr.zoom.us/j/98061284853
	Paper Title	**Authors**
	A digital capability maturity model based on the hesitant fuzzy linguistic variables	Chen-Tung Chen, Alper Ova, Wei-Zhan Hung
	Maximum Dynamic Flow Model for Hesitant Fuzzy Evacuation with Intermediate Storage at Nodes	Evgeniya Gerasimenko, Vladimir Kureichik, Elmar Kuliev
	Hesitant Fuzzy Emergency Decision-Making for Maximum Flow Evacuation with Intermediate Storage at Nodes	Evgeniya Gerasimenko, Vladimir Kureichik
	Score indices for hesitant fuzzy sets: generalized fuzzy integrals	Yasuo Narukawa, Vicenc Torra
Aug. 25, 2021 (DAY 2) Parallel Session 4		
UTC+3 11:45-13:15	**Session Chair**	***Serhat Aydın- Nurşah Alkan (saydin3@msu.hho.edu.tr, nalkan@itu.edu.tr)*** **Meeting Link:**
	Session Name	***SS15.1 Q-Rung Orthopair Fuzzy Sets*** https://itu-edu-tr.zoom.us/j/91209681761
	Paper Title	**Authors**
	An Industry 4.0 adaptation assessment with q-rung ortopair fuzzy MABAC method	Serhat Aydin
	Optimal Selecting of Sanitarium Sites for COVID-19 Patients in Iran by applying an Integrated ELECTRE-VIKOR method in q	Fariba Farid, Yaser Donyatalab
	Key Challenges of LI-ON Battery Recycling Process in Circular Economy Environment: Pythagorean Fuzzy AHP Approach	Abdullah Yildizbasi, Cihat Öztürk, Ibrahim Yilmaz, Yağmur Arıöz
	Prioritization of R&D Projects using Fermatean Fuzzy MARCOS method	Irem Ucal Sari, Sule Nur Sargin
	Sustainable Supply Chain of Aviation Fuel based on analytical hierarchy process (AHP) under uncertainty of q-ROFSs	Fariba Farid, Yaser Donyatalab
Aug. 25, 2021 (DAY 2) Parallel Session 5		
UTC+3 11:45-13:15	**Session Chair**	***Sezi Cevik Onar-Veysel Coban (sezi@outlook.com, veysel.coban@bilecik.edu.tr)*** **Meeting Link:**
	Session Name	***SS5.2 Fuzzy Multi-Criteria Decision-Making*** https://itu-edu-tr.zoom.us/j/98902284561
	Paper Title	**Authors**
	An MCDM Based On Alpha Open Hypersoft Sets And Its Application	Ajay Devaraj, Charisma Joseline
	Evaluating the Consistency Indices of Pairwise Comparisons Based on Fuzzy Evaluations	Veysel Çoban, Cengiz Kahraman
	An Application of Fuzzy AHP, EDAS and WASPAS for the Selection of Process Method in Software Projects	İbrahim Yel, Ahmet Sarucan, Mehmet Emin Baysal
	Pythagorean Neutrosophic Soft Sets And Their Application To Decision Making Scenario	Ajay Devaraj, Chellamani Perumal
	Fuzzy Multi-Criteria Analysis of Factors Affecting the Digitalization Success of Public Services	Aylin Adem, Burcu Yılmaz Kaya, Metin Dağdeviren
UTC+3 13:15-13:30	***A visit to Turkey: video display - Lunch Break***	
Aug. 25, 2021 (DAY 2) Parallel Session 1		
UTC+3 13:30-15:00	**Session Chair**	***Cengiz Kahraman-Eda Bolturk (kahramanc@itu.edu.tr, bolturk@itu.edu.tr)*** **Meeting Link:**
	Session Name	***SS13.3 Prediction and Estimation*** https://itu-edu-tr.zoom.us/j/96377689508
	Paper Title	**Authors**
	An Intelligent Multi-Output Regression Model for Soil Moisture Prediction	Cansel Kucuk, Derya Birant, Pelin Yildirim Taser
	Short-term forecasting for three phrase current on distribution network by applying Multiple-layer perceptron algorithm	Thien-An Nguyen, Huu Vinh Nguyen, Hung Nguyen
	Currency Exchange Rate Forecasting with Social Media Sentiment Analysis	Akıner Alkan, Ali Fuat Alkaya,Peter Schüller
	A fuzzy rule-based ship risk profile prediction model for port state control inspections	S.M.Esad Demirci, Kadir Cicek, Ulku Ozturk
	The most effective factors in predicting bioelectrical impedance phase angle for classification of healthy and depressed obe	Seyed Amir Tabatabaei Hosseini, Mahdad Esmaeili, Yaser Donyatalab, Fariborz Rahimi
Aug. 25, 2021 (DAY 2) Parallel Session 2		

UTC+3 13:30-15:00	**Session Chair**	***Irem Otay-Ali Karasan (irem.otay@bilgi.edu.tr,akarasan@yildiz.edu.tr)***	***Meeting Link:***
	Session Name	***SS16.1 Learning Algorithms***	https://itu-edu-tr.zoom.us/j/94614050145
	Paper Title		***Authors***
	A Learning Based Vertical Integration Decision Model		Menekse Gizem Görgün, Seçkin Polat, Umut Asan
	Comparing Fusion Methods For 3D Object Detection		Erkut Arican, Tarkan Aydin
	Diabetic Retinopathy Detection with Deep Transfer Learning Models		Gökalp Çınarer, Kazım Kılıç
	Artificial Intelligence-Based Digital Financial Fraud Detection		Sanaa Elyassami, Abdulrahman Ali Alhosani, Hamda Nasir Humaid, Hamed Taher Alawadhi
Aug. 25, 2021 (DAY 2) Parallel Session 3			
UTC+3 13:30-15:00	**Session Chair**	***Selcuk Cebi-Esra Ilbahar (scebi@yildiz.edu.tr, esrailbahar@gmail.com)***	***Meeting Link:***
	Session Name	***SS17.1 Risk Management***	https://itu-edu-tr.zoom.us/j/98752504357
	Paper Title		***Authors***
	Fuzzy risk management system for small cultural institutions		Alicja Krawczyńska, Dorota Kuchta
	Real-Time Distributed System for Pedestrians' Fuzzy Safe Navigation in Urban Environment		Azedine Boulmakoul, Kaoutar Bella, Ahmed Lbath
	Prioritization of Logistics Risks with Plithogenic PIPRECIA Method		Alptekin Ulutaş, Ayşe Topal, Darjan Karabasevic, Dragisa Stanujkic, Gabrijela Popovic, Florentin Smarandache
	A New Risk Analysis Approach for Operational Risks in Logistic Sector based on Fuzzy Best Worst Method		Necip Fazıl Karakurt, Ecem Cem, Selcuk Cebi
Aug. 25, 2021 (DAY 2) Parallel Session 4			
UTC+3 13:30-15:00	**Session Chair**	***Basar Oztaysi-Onur Doğan (oztaysib@itu.edu.tr, onur.dogan@bakircay.edu.tr)***	***Meeting Link:***
	Session Name	***SS14.1 Neural Networks***	https://itu-edu-tr.zoom.us/j/93692862956
	Paper Title		***Authors***
	Fuzzy Neural Networks for Detection Kidney Diseases		Rahib Abiyev, John Bush Idoko, Rebar Dara
	Improved Harris Hawks Optimization Adapted for Artificial Neural Network Training		Nebojsa Bacanin, Nikola Vukobrat, Miodrag Zivkovic, Timea Bezdan, Ivana Strumberger
	Deep Learning Neural Network Architecture for Human Facial Expression Recognition		Jaeho Choi, Sangaraju Kumar
	Diagnosis of COVID-19 using Deep Neural Networks and Meta-heuristic Algorithm		Omer Faruk Gurcan, Ugur Atici, Mustafa Berkan Bicer, Onur Dogan
Aug. 25, 2021 (DAY 2) Parallel Session 5			
UTC+3 13:30-15:00	**Session Chair**	***Serhat Aydın- Nurşah Alkan (saydin3@msu.hho.edu.tr, nalkan@itu.edu.tr)***	***Meeting Link:***
	Session Name	***SS12.1 Machine Learning***	https://itu-edu-tr.zoom.us/j/95865951146
	Paper Title		***Authors***
	National Basketball Association Player Salary Prediction Using Supervised Machine Learning Methods		Emirhan Özbalta, Mücahit Yavuz, Tolga Kaya
	Demand Forecasting Of A Company That Produces By Mass Customization With Machine Learning		Ahmet Tekin, Ferhan Cebi, Engin Yağcioğlu
	Face Detection and Facial Feature Extraction with Machine Learning		Mehmet Karahan, Furkan Laçinkaya, Kaan Erdönmez, Eren Deniz Eminağaoğlu, Coşku Kasnakoğlu
	Prediction Models for Project Attributes Using Machine Learning		Ching-Lung Fan
	Stock Price Prediction of Turkish Banks Using Machine Learning Methods		Bora Egüz, Fırat Ersin Çorbacı, Tolga Kaya
COFFEE BREAK			
Aug. 25, 2021 (DAY 2) Parallel Session 1			
UTC+3 15:15-16:45	**Session Chair**	***Irem Otay-Ali Karasan (irem.otay@bilgi.edu.tr, akarasan@yildiz.edu.tr)***	***Meeting Link:***
	Session Name	***SS14.2 Neural Networks***	https://itu-edu-tr.zoom.us/j/92443040950
	Paper Title		***Authors***
	Application of neural networks in sentiment analysis of social media text data		Vadim Moshkin, Andrey Konstantinov, Nadezhda Yarushkina
	Bilingual speech emotion recognition using neural networks: A case study for Turkish and English languages		Damla Büşra Özsönmez, Tankut Acarman, Burak Parlak
	Dynamic Multiplier CPPI Strategy with Wavelets and Neural-Fuzzy Systems		Omer Gursoy, Oktay Taş
	Emotion Extraction from Text Using Fuzzy-Deep Neural Network		Ashkan Yeganeh Zaremarjal, Derya Yıltaş-Kaplan, Soghra Lazemi

	RRAM – based - Equivalent Neural Network	Ali Mohammed,Ali AbuAssal, and Osama Rayis
Aug. 25, 2021 (DAY 2) Parallel Session 2		
UTC+3 15:15-16:45	***Session Chair***	***Basar Oztaysi-Onur Doğan (oztaysib@itu.edu.tr, onur.dogan@bakircay.edu.tr)*** ***Meeting Link:***
	Session Name	***SS12.2 Machine Learning*** https://itu-edu-tr.zoom.us/j/96656467178
	Paper Title	***Authors***
	Clustering English Premier League Referees Using Unsupervised Machine Learning Techniques	Mustafa Ispa, Ufuk Yarisan, Tolga Kaya
	New Fuzzy Observer Fault Pattern Detection by NARX-Laguerre Model Applied to Rotating Machine	Shahnaz Tayebihaghighi, Insoo Koo
	Comparison of ML Algorithms to Detect Vulnerabilities of RPL-Based IoT Devices in Intelligent and Fuzzy Systems	Murat Ugur Kiraz, Atinc Yilmaz
	Predictive quality defect detection using machine-learning algorithms: A case study from automobile industry	Muhammed Hakan Yorulmuş, Bersam Bolat, Çağatay Bahadır
Aug. 25, 2021 (DAY 2) Parallel Session 3		
UTC+3 15:15-16:45	***Session Chair***	***Sezi Cevik Onar-Veysel Coban (sezi@outlook.com, veysel.coban@bilecik.edu.tr)*** ***Meeting Link:***
	Session Name	***SS11.2 New Extensions: Spherical & Picture Fuzzy Sets in Decision Making*** https://itu-edu-tr.zoom.us/j/94766449806
	Paper Title	***Authors***
	Seismic vulnerability assessment using spherical fuzzy ARAS	Akin Menekse, Hatice Camgöz Akdağ
	Public Transportation Business Model Assessment with Spherical Fuzzy AHP	Busra Buran, Mehmet Ercek
	A Decision Support System Proposition for Type-2 Diabetes Mellitus Treatment Using Spherical Fuzzy AHP Method	Sezi Cevik Onar, Enes Hakan İbil
	Information Technology Governance Evaluation Using Spherical Fuzzy AHP ELECTRE	Akin Menekse, Hatice Camgöz Akdağ
	Picture Similarity Measures and Their Application to Medical Diagnosis	Fatma Kutlu Gündogdu, Seyed Amin Seyfi-Shishavan
Aug. 25, 2021 (DAY 2) Parallel Session 4		
UTC+3 15:15-16:45	***Session Chair***	***Selcuk Cebi-Esra Ilbahar (scebi@yildiz.edu.tr, esrailbahar@gmail.com)*** ***Meeting Link:***
	Session Name	***SS5.3 Fuzzy Multi-Criteria Decision-Making*** https://itu-edu-tr.zoom.us/j/99800737955
	Paper Title	***Authors***
	An Integrated Approach To Human Resources Software Program Selection In A Fuzzy Enviroment	Ezgi Köy, Aziz Kemal Konyalıoğlu, Ferhan Cebi
	Determination of the Best Alternative Position for the Storage Location/Product Assignment by Using VIKOR	Bünyamin Sarıcan, Mehmet Emin Baysal, Ahmet Sarucan
	How Different are Fuzzy MCDA Models, Which are Fuzzy Extensions of an MCDA Method?	Alexander Korobov, Alexander Radaev, and Boris Yatsalo
	Evaluating Driver Behavior Criteria Connected to Road Safety by Considering 2-Dimensional Uncertain Linguistic Data	Sarbast Moslem, Danish Farooq, Ali Karasan
	Warehouse Location Decision in Medical Sector: A Fuzzy Comparative Study in Post-Covid Era	Tutku Tuncalı Yaman, Gonca Reyhan Akkartal
Aug. 25, 2021 (DAY 2) Parallel Session 5		
UTC+3 15:15-16:45	***Session Chair***	***Serhat Aydın- Nurşah Alkan (saydin3@msu.hho.edu.tr, nalkan@itu.edu.tr)*** ***Meeting Link:***
	Session Name	***SS4.3 Fuzzy Mathematics*** https://itu-edu-tr.zoom.us/j/94072445803
	Paper Title	***Authors***
	Jensen-Shannon divergence for smart buildings' fuzzy topological networks similarity analytics	Azedine Boulmakoul, Abdellah Daissaoui, Lamia Karim, and Ahmed Lbath
	Fuzzy Logic Beyond Traditional ``And''-Operations	Vladik Kreinovich, Olga Kosheleva
	Application of Choquet integral operator to aggregate ELICIT information	Wen He, Bapi Dutta, Rosa M. Rodríguez, Luis Martínez
	A Numerical Method for Integration of a Fuzzy Function over a Fuzzy Interval	Gizem Temelcan, Hale Gonce Kocken, Inci Albayrak
	Figurative Series in Spatial Analysis of Situations	Stanislav Belyakov, Alexander Bozhenyuk, Margarita Knyazeva, Igor Rozenberg

Aug 26, 2021 (DAY 3)

Aug. 26, 2021 (DAY 3) Parallel Session 1		
	Session Chair	***Sukran Seker-Elif Haktanır (sseker@yildiz.edu.tr, elif.haktanir@altinbas.edu.tr)*** ***Meeting Link:***
	Session Name	***SS20.1 Neutrosophic Sets*** https://itu-edu-tr.zoom.us/j/99574629061
	Paper Title	***Authors***

UTC+3 10:00-11:30	Analysis of Supply Chain Disruption Factors under the effect of Covid-19 Pandemic via Neutrosophic DEMATEL	Fatma Cayvaz, Gulfem Tuzkaya, Zeynep Tugce Kalender, Hüseyin Selcuk Kilic
	Cylindrical Neutrosophic Fuzzy MCDM Approach on Electric Vehicle Charging Station Relocation with Time-Dependent Der	Esra Çakir, Mehmet Ali Taş, Ziya Ulukan
	An Extended QFD Method For Sustainable Production With Using Neutrosophic Sets	Sezen Ayber, Nihal Erginel
	C-Control Charts with Neutrosophic Sets	Hatice Ercan Teksen
	Selection of the Best Software Project Management Model via Interval-Valued Neutrosophic AHP	Nisa Cizmecioglu, Hüseyin Selcuk Kilic, Zeynep Tugce Kalender, Gulfem Tuzkaya
Aug. 26, 2021 (DAY 3) Parallel Session 2		
UTC+3 10:00-11:30	***Session Chair***	***Cengiz Kahraman-Eda Bolturk (kahramanc@itu.edu.tr,bolturk@itu.edu.tr)*** ***Meeting Link:***
	Session Name	***SS6.3 Fuzzy Optimization*** https://itu-edu-tr.zoom.us/j/97048171734
	Paper Title	***Authors***
	A Fuzzy Variant of the Multi-verse Optimizer for Optimal Design of Fuzzy Controllers	Lucio Amezquita, Oscar Castillo, Jose Soria, Prometeo Cortes-Antonio
	The Task of Optimizing Production Planning with Fuzzy Parameters	Olesiya Kosenko, Alexander Bozhenyuk, Margarita Knyazeva
	Comparative Study of Identification Using Nonlinear Least Squares Errors and Particle Swarm Optimization Algorithms for	Masoud Abedinifar and Seniz Ertugrul
	A new artificial bee colony algorithm approach for the vehicle routing problem	Hubert Zarzycki, Oskar Skubisz
Aug. 26, 2021 (DAY 3) Parallel Session 3		
UTC+3 10:00-11:30	***Session Chair***	***Sezi Cevik Onar-Veysel Coban (sezi@outlook.com, veysel.coban@bilecik.edu.tr)*** ***Meeting Link:***
	Session Name	***SS16.2 Learning Algorithms*** https://itu-edu-tr.zoom.us/j/97681371686
	Paper Title	***Authors***
	From Statistical to Deep Learning Models: A Comparative Sentiment Analysis Over Commodity News	Mahmut Sami Sivri, Buse Sibel Korkmaz, Alp Ustundag
	Deep Learning Network Model Studies for Adversarial Attack Resistance	Jaeho Choi, Fei Chen
	An Ensemble Learning Approach for Energy Demand Forecasting in Microgrids using Fog Computing	Tuğçe Keskin, Gökhan İnce
	A fuzzy deep learning approach to health-related text classification	Nasser Ghadiri, Ali Ghadiri, Afrooz Sheikholeslami
Aug. 26, 2021 (DAY 3) Parallel Session 4		
UTC+3 10:00-11:30	***Session Chair***	***Serhat Aydın- Nurşah Alkan (saydin3@msu.hho.edu.tr, nalkan@itu.edu.tr)*** ***Meeting Link:***
	Session Name	***SS17.2 Risk Management*** https://itu-edu-tr.zoom.us/j/93880240133
	Paper Title	***Authors***
	Towards a safe pedestrian walkability under intuitionistic fuzzy risk: A real-time reactive microservice oriented ecosystem	Ghyzlane Cherradi, Azedine Boulmakoul, Lamia Karim, Ahmed Lbath, Meriem Mandar
	Risk Analysis for Tech Startup Projects with Fuzzy Failure Mode and Effect Analysis	Bersam Bolat, Fatma Yaşlı, Gul T. Temur
	Circumcenter based Ranking Fuzzy Numbers for Financial Risk Management	Lazim Abdullah, Ahmad Termimi Ab Ghani, Nurnadiah Zamri
	Fuzzy pretopological space for pedestrians' risk perception modeling	Azedine Boulmakoul, Souhail El Kaissi, Ahmed Lbath
Aug. 26, 2021 (DAY 3) Parallel Session 5		
UTC+3 10:00-11:30	***Session Chair***	***Selcuk Cebi-Esra Ilbahar (scebi@yildiz.edu.tr, esrailbahar@gmail.com)*** ***Meeting Link:***
	Session Name	***SS18.1 Intuitionistic fuzzy sets*** https://itu-edu-tr.zoom.us/j/91405500700
	Paper Title	***Authors***
	A ranking method of the generalized intuitionistic fuzzy numbers using possibility theory	Totan Garai
	The intuitionistic fuzzy framework for evaluation and rank ordering the negotiation offers	Ewa Roszkowska
	Intuitionistic Fuzzy ANOVA for COVID-19 Cases in Asia by Density and Climate Factors	Velichka Traneva, Stoyan Tranev
	Vendor Selection in IT Using Integrated MCDM & Intuitionistic Fuzzy	Aylin Tan, Babak Daneshvar Rouyendegh
COFFEE BREAK		
Aug. 26, 2021 (DAY 3) Parallel Session 1		
UTC+3 11:45-13:15	***Session Chair***	***Irem Otay-Elif Haktanır (irem.otay@bilgi.edu.tr, elif.haktanir@altinbas.edu.tr)*** ***Meeting Link:***
	Session Name	***SS18.2 Intuitionistic fuzzy sets*** https://itu-edu-tr.zoom.us/j/93677101541
	Paper Title	***Authors***
	Extension Of VIKOR Method Using Circular Intuitionistic Fuzzy Sets	Cengiz Kahraman, Irem Otay
	Vaccine Selection Using Interval-Valued Intuitionistic Fuzzy VIKOR: A Case Study of Covid-19 Pandemic	Cihat Öztürk, Abdullah Yildizbasi, Yağmur Arıöz, Ibrahim Yilmaz
	A novel approach of complex intuitionistic fuzzy linear systems in an electrical circuit	Akila Padmasree, Parvathi Rangasamy

	Intuitionistic Fuzzy Index-Matrix Selection for the Outsourcing Providers at a Refinery	Velichka Traneva, Stoyan Tranev
Aug. 26, 2021 (DAY 3) Parallel Session 2		
	Session Chair	***A. Cagri Tolga-Ali Karasan (ctolga@gsu.edu.tr, akarasan@yildiz.edu.tr)*** ***Meeting Link:***
	Session Name	***SS1.2 Fuzzy Clustering*** https://itu-edu-tr.zoom.us/j/92887699531
	Paper Title	***Authors***
UTC+3 11:45-13:15	Text Segmentation Using Light Syntax Parsing and Fuzzy Systems	Omar Ali, Alexander Gegov, Ella Haig, Rinat Khusainov
	A Neighborhood Merging Policy Based on Shannon's Entropy and Symmetric Relative Entropy for Non-Convex Cluster Dete	Mustafa Ünver, Nihal Erginel
	Self-Tuning Intelligence Digital Twin for Bearing Pattern Recognition	Farzin Piltan and Jong-Myon Kim
	Intelligent Customer Segmentation Considering Beer Sales Based On Beer Attributes, Products And Price: A Case Study For	Ozlem Senvar, Serdar Peduk, Cem Yildiz, and Ceyhun Vardar
	Customer Segmentation Using RFM Model and Clustering Methods in Online Retail Industry	Sezgi Acar, Fatma Köroğlu, Batuhan Duyuler, Tolga Kaya, Tuncay Ozcan
Aug. 26, 2021 (DAY 3) Parallel Session 3		
	Session Chair	***Sezi Cevik Onar-Veysel Coban (sezi@outlook.com, veysel.coban@bilecik.edu.tr)*** ***Meeting Link:***
	Session Name	***SS5.4 Fuzzy Multi-Criteria Decision-Making*** https://itu-edu-tr.zoom.us/j/95184451790
	Paper Title	***Authors***
UTC+3 11:45-13:15	Application of Similarity Measures for Triangular Fuzzy Numbers in modified TOPSIS Technique to Handling Data Uncertai	Bartłomiej Kizielewicz, Andrii Shekhevtsov, Wojciech Sałabun
	A Multi-Criteria Approach To Usability Research For Digital Platforms In Fuzzy Environment	Burcu Yılmaz Kaya, Aylin Adem, Metin Dağdeviren
	Using a Fuzzy-AHP Decision Model for Selecting the Best Firewall	Ceren Cubukcu, Cem Cantekin
	An Adaptive Consensus Model for Extended Comparative Linguistic Expressions with Symbolic Translation	Álvaro Labella, Rosa M. Rodríguez, Luis Martínez
	Multi-criteria Decision Making Problem with Triangular Fuzzy Neutrosophic Sets	Hatice Ercan Teksen
Aug. 26, 2021 (DAY 3) Parallel Session 4		
	Session Chair	***Irem Ucal Sari- Fatma Kutlu Gündoğdu (ucal@itu.edu.tr, fatmakutlugundogdu@gmail.com)*** ***Meeting Link:***
	Session Name	***SS19.1 Quality Management*** https://itu-edu-tr.zoom.us/j/92582981289
	Paper Title	***Authors***
UTC+3 11:45-13:15	Testing Absolute Error Loss-based Capability Index	Abbas Parchami
	Customer Need Analysis for Trim Levels of Automobiles using Fuzzy Kano Model	Irem Ucal Sari, Furkan Sevinc
	On Converting Crisp Failure Possibility into Probability for Reliability of Complex Systems	Bekir Sahin, Anis Yazidi, Dumitru Roman, Md Zia Uddin, Ahmet Soylu
	Simulation Testing of Fuzzy Quality with a Case Study in Pipe Manufacturing Industries	Abbas Parchami, Hamideh Iranmanesh, Bahram Sadeghpour Gildeh
	A Case Study on Quality Test based on Fuzzy Specification Limits	Hamideh Iranmanesh, Abbas Parchami, Bahram Sadeghpour Gildeh
Aug. 26, 2021 (DAY 3) Parallel Session 5		
	Session Chair	***Sukran Seker-Nursah Alkan (sseker@yildiz.edu.tr, nalkan@itu.edu.tr)*** ***Meeting Link:***
	Session Name	***SS11.3 New Extensions: Spherical & Picture Fuzzy Sets in Decision Making*** https://itu-edu-tr.zoom.us/j/99646698625
	Paper Title	***Authors***
UTC+3 11:45-13:15	Present Worth Analysis Using Spherical Fuzzy Sets	Eda Boltürk, Sukran Seker
	Spherical Fuzzy EXPROM Method: Wastewater Treatment Technology Selection Application	Cengiz Kahraman, Başar Öztayşi, Sezi Çevik Onar
	Tangent Similarity Measure of Cubic Spherical Fuzzy Sets and Its application to MCDM	Ajay Devaraj, J Aldring
	Complex T-Spherical Fuzzy N-Soft Sets	Muhammad Akram,Maria Shabir
	Big Data-Driven in COVID-19 Pandemic Management System: Evaluation of Barriers with Spherical Fuzzy AHP Approach	Yağmur Arıöz, Ibrahim Yilmaz, Abdullah Yildizbasi, Cihat Öztürk
UTC+3 13:15-13:30	***A visit to Turkey: video display - Lunch Break***	
Aug. 26, 2021 (DAY 3) Parallel Session 1		
	Session Chair	***engiz Kahraman-Fatma Kutlu Gündoğdu (kahramanc@itu.edu.tr, fatmakutlugundogdu@gmail.con*** ***Meeting Link:***
	Session Name	***SS22.1 Intelligent and Fuzzy Sets Applications*** https://itu-edu-tr.zoom.us/j/96940158703
	Paper Title	***Authors***
UTC+3 13:30-15:00	Intelligent Fuzzy System for Stray Pet Care Appliances	Nurullah Akkaya, Ersin Aytac, Gorkem Say, Sanan Abizada, Tolga Yirtici, Berk Yilmaz, Gokhan Burge, Kemal Ruso, Irfan Gunsel, Rahib Abiyev

13:30-15:00	Engineering Application of Fuzzy Events Probabilities	Provotar Oleksandr
	Comparison between numerical solutions of fuzzy partial differential equations via interactive and non-interactive arithme	Vinícius Wasques
	Modelling of Covid-19 in Turkey based on Fuzzy Stochastic Differential Equations	Nihal İnce, Sevil Şentürk
	Application of Fuzzy Logic Apparatus to Solve the Problem of Spatial Selection in Architectural-Design Projects	Rahib Imamguluyev, Niyar Umarova
Aug. 26, 2021 (DAY 3) Parallel Session 2		
UTC+3 13:30-15:00	***Session Chair***	***A. Cagri Tolga- Ali Karasan (ctolga@gsu.edu.tr, akarasan@yildiz.edu.tr)*** / ***Meeting Link:***
	Session Name	***SS22.2 Intelligent and Fuzzy Sets Applications*** / https://itu-edu-tr.zoom.us/j/91762127436
	Paper Title	***Authors***
	Developing a University Twitter-like Smart Social Network	Marius Constantin Popescu, Calin Rada, Antoanela Naaji
	An Easily Configurable Customer Loyalty Framework using Distributed Ledger Technologies	Ahmet Emin Ünal, Gökhan İnce, Kerim Ay, Selçuk Öztürk, Cengiz Gezer
	An Integration of Interval Type-2 Fuzzy Set with Equitable Linguistic Approach based on Multi-Criteria Decision Making: Fl	Nurnadiah Zamri, Zamali Tarmudi, Syibrah Naim
	Fuzzy spatiotemporal centrality for urban resilience	Azedine Boulmakoul, Fatima-ezzahra Badaoui, Lamia Karim, Ahmed Lbath, Rachid Oulad Haj Thami
	Pre-Diagnosis Support System For Post Covid-19 Syndrome In Turkey	Yeşim Kop Naskali, A. Teoman Naskali, and Y. Esra Albayrak
Aug. 26, 2021 (DAY 3) Parallel Session 3		
UTC+3 13:30-15:00	***Session Chair***	***Sukran Seker-Elif Haktanır (sseker@yildiz.edu.tr, elif.haktanir@altinbas.edu.tr)*** / ***Meeting Link:***
	Session Name	***SS8.1 Grey Theory*** / https://itu-edu-tr.zoom.us/j/94017080075
	Paper Title	***Authors***
	Fuzzy Time Series and Grey Theory Forecasting for the Salesof Cleaning Products	Funda Ahmetoglu Tasdemir, Sukran Seker
	Designing transportation problem under Grey Linear Programming based on sensitivity analysis	Farid Pourofoghi, Davood Darvishi Salokolaei, and Ajith Abraham
	An Optimized Nonlinear Grey Bernoulli Model For Forecasting The Electricity Consumption During Covid-19 Pandemic: A (	Aziz Kemal Konyalıoğlu, Tuğçe Beldek, Tuncay Ozcan
	Analysis of multi objective response variables for the milling characteristics of Al-SiC particulate composites using taguchi	C. Kavitha and T. S. Frank Gladson
Aug. 26, 2021 (DAY 3) Parallel Session 4		
UTC+3 13:30-15:00	***Session Chair***	***Irem Ucal Sari-Eda Bolturk (ucal@itu.edu.tr, bolturk@itu.edu.tr)*** / ***Meeting Link:***
	Session Name	***SS21.1 Z Numbers*** / https://itu-edu-tr.zoom.us/j/97461097956
	Paper Title	***Authors***
	Monitoring stability of plant species to harmful urban environment under Z- information	Olga Poleshchuk
	Critical path for projects with activity durations modelled as Z-fuzzy numbers	Ewa Marchwicka, Dorota Kuchta
	Defuzzification of Intuitionistic Z-Numbers for Fuzzy Multi Criteria Decision Making	Nik Muhammad Farhan Hakim Nik Badrul Alam, Ku Muhammad Naim Ku Khalif, Nor Izzati Jaini, Ahmad Syafadhli Abu Bakar, Lazim Abdullah
	Clustering Z- information based on semantic spaces	Olga Poleshchuk
Aug. 26, 2021 (DAY 3) Parallel Session 5		
UTC+3 13:30-15:00	***Session Chair***	***Selcuk Cebi-Esra Ilbahar (scebi@yildiz.edu.tr, esrailbahar@gmail.com)*** / ***Meeting Link:***
	Session Name	***SS18.3 Intuitionistic fuzzy sets*** / https://itu-edu-tr.zoom.us/j/99205024164
	Paper Title	***Authors***
	Investigation of cotton production companies transition to industry 4.0 using the intuitionistic fuzzy TOPSIS method	Merve Çil, Babak Daneshvar Rouyendegh
	Prioritization of Factors Affecting the Digitalization of Quality Management Using Circular Intuitionistic Fuzzy Best-Worst M	Nurşah Alkan, Cengiz Kahraman
	A Vector Valued Similarity Measure Based on The Choquet Integral for Intuitionistic Fuzzy Sets and Its Application to Patte	Ezgi Türkarslan, Mehmet Ünver, Murat Olgun
	Social Acceptability Assessment of Renewable Energy Policies: An Integrated Approach based on IVPF BOCR and IVIF AHP	Esra Ilbahar, Selcuk Cebi, Cengiz Kahraman
COFFEE BREAK		
Aug. 26, 2021 (DAY 3) Parallel Session 1		
UTC+3	***Session Chair***	***Irem Ucal Sari- Eda Bolturk (ucal@itu.edu.tr, bolturk@itu.edu.tr)*** / ***Meeting Link:***
	Session Name	***SS22.3 Intelligent and Fuzzy Sets Applications*** / https://itu-edu-tr.zoom.us/j/97072642225
	Paper Title	***Authors***
	Evaluation of Isolation room and Anteroom of Hospitals in Corona Conditions (Case Study: Sari, Iran)	Hassan Ahmadi Choukolaei, Soheil Shafaee Tilaki, Ajith Abraham

15:15-16:45	A Comparative Study of FAHP with Type-1 and Interval Type-2 Fuzzy Sets for ICT Implementation in Smart Cities	Dušan Milošević, Mimica Milošević, Dušan Simjanović
	Fuzzy rating system for cohesive development teams	Alexey Zhelepov, Nadezhda Yarushkina
	A Fuzzy Measure Based Approach to Scenario Evaluation	Ozgur Yanmaz, Umut Asan
	Fuzzy Pythagorean fuzzy Bayesian Decision making of maintenance strategy selection in offshore sectors	Mohammad Yazdi, Arman Nedjati, Noorbakhsh Amiri Golilarz, Kehinde A. Adesina
Aug. 26, 2021 (DAY 3) Parallel Session 2		
	Session Chair	***Sezi Cevik Onar-Veysel Coban (sezi@outlook.com, veysel.coban@bilecik.edu.tr)*** ***Meeting Link:***
	Session Name	***SS24.1 Intelligent and Fuzzy Data Analysis*** https://itu-edu-tr.zoom.us/j/94066141464
	Paper Title	***Authors***
UTC+3 15:15-16:45	An Analysis of Data Production based on the Consistency of Decision Matrices	Bekir Sahin, Anis Yazidi,Dumitru Roman, Md Zia Uddin, Ahmet Soylu
	Rules Induced Using Possible Coverings from Incomplete Data Sets	Michinori Nakata, Norio Saito, Hiroshi Sakai, Takeshi Fujiwara
	Development and implementation of an algorithm for processing fuzzy queries to relational databases.	Ramiz Alekperov
	Investigation of Turkish Literary Poetry by Unsupervised Text Mining Methods	Ayse Nisa Akgun, Zeynep Deren Calisir, Tolga Kaya
	Systematic Literature Review For Data-Driven Security Solutions of Self Scanning Applications In Retail Sector	Ridvan Ozkiris, Gizem Omeroglu
Aug. 26, 2021 (DAY 3) Parallel Session 3		
	Session Chair	***Sukran Seker-Elif Haktanır (sseker@yildiz.edu.tr, elif.haktanir@altinbas.edu.tr)*** ***Meeting Link:***
	Session Name	***SS7.1 Fuzzy Scheduling*** https://itu-edu-tr.zoom.us/j/94899077567
	Paper Title	***Authors***
UTC+3 15:15-16:45	No-Wait Flow Shop Scheduling Problem with Setup Time in Fuzzy Environment	Ramazan Başar, Orhan Engin
	Unfolding fuzzy temporal computational graph for project scheduling problem	Margarita Knyazeva, Alexander Bozhenyuk, Vitalii Bozheniuk
	Fuzzy Hybrid Flow Shop Scheduling Problem: An Application	Meral İşler, Orhan Engin
	Fuzzy resource-constrained project scheduling under learning considerations	Meral Güldeş, Ugur Atici, Cenk Şahin
Aug. 26, 2021 (DAY 3) Parallel Session 4		
	Session Chair	***Basar Oztaysi-Onur Doğan (oztaysib@itu.edu.tr, onur.dogan@bakircay.edu.tr)*** ***Meeting Link:***
	Session Name	***SS13.2 Prediction and Estimation*** https://itu-edu-tr.zoom.us/j/94212064985
	Paper Title	***Authors***
UTC+3 15:15-16:45	Heart Disease Prediction and Hybrid GANN	Rahul Kumar Jha, Dr Santosh Kumar Henge, Ashok Sharma
	Ensemble Learning Based Stock Market Prediction Enhanced with Sentiment Analysis	Mahmut Sami Sivri, Alp Ustundag, Buse Sibel Korkmaz
	Predictive Maintenance Framework for Production Environments using Digital Twin	Mustafa Furkan Süve, Cengiz Gezer, Gökhan İnce
	Spatial prediction and digital mapping of Soil texture classes in a flood plain using multinomial logistic regression	Fuat Kaya, Levent Başayiğit
	Predicting Performance of Legal Debt Collection Agency	Nilüfer Altınok, Elmira Farrokhizadeh, Ahmet Tekin, Basar Oztaysi, Sara Ghazanfari Khameneh, Basar Oztaysi, Sezi Çevik Onar, Özgür Kabak, Ali Kasap, Aykut Şahin, and Mehmet Ayaz
Aug. 26, 2021 (DAY 3) Parallel Session 5		
	Session Chair	***Selcuk Cebi-Esra Ilbahar (scebi@yildiz.edu.tr, esrailbahar@gmail.com)*** ***Meeting Link:***
	Session Name	***SS24.2 Intelligent and Fuzzy Data Analysis*** https://itu-edu-tr.zoom.us/j/92845855901
	Paper Title	***Authors***
UTC+3 15:15-16:45	Sales Promotion Effectiveness: The Impact of Category – Brand Level Price Promotions on Sales Performance of a Large Re	Ömer Zeybek, Burç Ülengin
	Enabling Big Data Analytics and AI Solutions for Smart Warehouse	Nihal Er, Gizem Melike Cidal, Simge Ünsal, Altan Çakır
	Fuzzy Spatio-Temporal Data Analysis on Disease Outbreaks and Air Transportation	Mohammad Khodizadeh-Nahari, Nasser Ghadiri, Ali Ghadiri
	An Approach Based on Feature Selection for Missing Value Imputation	Emrah Sezer, Hülya Basegmez
	Fraud Detection Using Fuzzy C Means	Selcuk Cebi, Nihal Aktas
COFFEE BREAK		
UTC+3 17:00-17:45	***AWARD CEREMONY SESSION***	***Meeting Link:*** https://itu-edu-tr.zoom.us/j/92575098415