DAY 1: TUESDAY (July 23, 2019)

8:45-9:45	COFFEE BREAK
9:00-12:00	REGISTRATION
9:45-10:30	**Speech of Prof. Janusz Kacprzyk on "Bipolar models for a more realistic representation and processing of human judgments, intentions and preferences: a role of fuzzy logic"** *Amphi Dolmabahçe Palace* *Chair Cengiz Kahraman*
10:30-10:45	COFFEE BREAK

Parallel Session 1

Session Chair	Özlem Şenvar	
Session Name	Special Session on Soft Models in Probability and Statistics	
Session Room	Room Topkapı Palace	
	Paper Title	**Authors**
10:45-12:15	Sales Forecasting by Artificial Neural Networks for the Apparel Retail Chain Stores	Sule Itir Satoglu, Nadide Caglayan, E.Nisa Kapukaya
	Causes and Effects of Climate Change via a Fuzzy Inference System	Gizem Koca, Mohammad T. A. Bhuiyan, Rene V. Mayorga
	Intuitionistic Fuzzy c-Control Charts Using Fuzzy Comparison Methods	Hatice Ercan Teksen, Ahmet Sermet Anagün

	An Unsupervised Data Mining Approach for Clustering Customers of Abrasive Manufacturer	Dilek Akburak, Necla Yel, Özlem Şenvar
	Some statistical and CI models to predict chaotic high-frequency financial data	Dusan Marcek, Martin Madera
Parallel Session 2	
Session Chair	**Nihal Erginel**	
Session Name	**Special Session on Intelligent Systems for Risk Analysis under Uncertainties**	
Session Room	**Room Hagia Sophia**	
	Paper Title	**Authors**
10:45-12:15	C2C E-Commerce Fuzzy Risk Analysis with Buyer Perspective	Saliha Karadayi-Usta
	A Fuzzy Based Risk Assessment Model with a Real Case Study	Selin Aslantas, Serap Tepe, Bülent Mertoğlu
	Developing the Neutrosophic Fuzzy FMEA Method As Evaluating Risk Assesment Tool	Sezen Ayber, Nihal Erginel
	The Quick Exposure Check (QEC) model proposal based on Fuzzy Logic for work-related musculoskeletal risk assessment	Yildiz Kose, Ayse Nur Karabayir, Emre Cevikcan
	Machine Criticality Level Assignment with Fuzzy Inference System for RCM	Hülya Torun, Serkan Çetinkaya
Parallel Session 3	
Session Chair	**Lazim Abdullah**	
Session Name	**Special session on Fuzzy Extensions and Its Application on Decision Making**	
Session	**Room Galata Tower**	

Room	Paper Title	Authors
	Paper Title	**Authors**
	AS/RS Technology Selection using Interval-Valued Pythagorean Fuzzy WASPAS	Eda Boltürk, Cengiz Kahraman
	Spherical Fuzzy Analytic Hierarchy Process (AHP) and Its Application to Industrial Robot Selection	Fatma Kutlu Gündoğdu, Cengiz Kahraman
10:45-12:15	The Use of Fuzzy DEMATEL for Urban Sustainable Development	Lazim Abdullah, Nuraini Rahim
	Evaluation of Hydroponic System in Vertical Farming via Fuzzy EDAS Method	A. Cagri Tolga, Berkan Gamsiz, Murat Basar

Parallel Session 4

Session Chair	Gülçin Büyüközkan	
Session Name	**Special session on Fuzzy Extensions and Its Application on Decision Making**	
Session Room	**Room Maiden's Tower**	
	Paper Title	**Authors**
	A Fuzzy MCDM Approach for Project Selection Criteria Prioritization in a Big-Four Company: Evidences from Turkey Consultancy Sector	Tuğçe Beldek, Aziz Kemal Konyalıoğlu, Hatice Camgöz-Akdağ
10:45-12:15	An Interval-Valued Intuitionistic Fuzzy Approach to the Assignment Problem	Velichka Traneva, Stoyan Tranev
	Smart Fridge Design with Interval-Valued Intuitionistic Fuzzy QFD	Gülçin Büyüközkan, Deniz Uztürk
	Assessment of Additive Manufacturing Technology by Pythagorean Fuzzy CODAS	Gülçin Büyüközkan, Fethullah Göçer

	Evaluation of Home Health Care Vehicle Routing Methods by Intuitionistic Fuzzy AHP	İskender Peker, Gülçin Büyüközkan, Gokhan Caybası, Fethullah Göçer
12:15-13:30	**LUNCH (see the map behind the booklet)**	
	Parallel Session 1	
Session Chair	**Oussama Masmoudi**	
Session Name	**Special Session on Real World Applications of Computational Intelligence in Big Data and Business Analytics**	
Session Room	**Room Topkapı Palace**	
	Paper Title	**Authors**
13:30-15:00	Partitioning the Time of Day for Bus Schedule Optimization	Seda Yanık, Alperen Bulut
	Using Consumer Reviews for Demand Planning: Case of Configurable Products	Erkan Işıklı, Mert Ketenci
	Competitive Positioning Analysis with Learning Vector Quantization	Umut Asan
	Using Support Vector Machine for the Prediction of Unpaid Credit Card Debts	Meltem Yontar, Özge Hüsniye Namlı Dağ, Seda Yanık
	A simultaneous lot-sizing and scheduling problem with energetic aspects	Oussama Masmoudi, Alice Yalaoui, Yassine Ouazene, Hicham Chehade, Farouk Yalaoui
	Parallel Session 2	
Session Chair	**Cigdem Kadaifci**	
Session Name	**Special Session on Intelligent and Fuzzy Systems in Business and Economics**	
Session Room	**Room Hagia Sophia**	

Paper Title	Authors
Improvement of the Simulation Model for High Accuracy Leaf Spring Test Bench by Implementing Fuzzy Logic	Elif Üstünışık, Ahmet Kırlı, İsmail O. Er, Yunus E. Erginsoy
Leg Base Airline Flight Carbon Emission Performance Assessment Using Fuzzy ANP	Furkan Aydogan, İlke Bereketli Zafeirakopoulos
An Improved Fuzzy Cognitive Mapping Method	Cigdem Kadaifci, Umut Asan
Stability of Complex-valued Neutral-type Neural Networks With Time-varying Delays	Manchun Tan, Zhiqiang Song, Xuemei Zhang
Determination of Denim Fabric's Air Permeability with Image Processing Using Fuzzy C Means	Gözde Katırcıoğlu, Emel Kızılkaya Aydoğan, Mihrimah Özmen, Esra Akgül

(The time range 13:30-15:00 spans all five rows above.)

Parallel Session 3

Session Chair	**Gülçin Büyüközkan**
Session Name	**Special session on Fuzzy Extensions and Its Application on Decision Making**
Session Room	**Room Galata Tower**

Paper Title	Authors
Double Hierarchy Hesitant Fuzzy Linguistic Term based MULTIMOORA Model for Solar Energy Investment Decision	Veysel Çoban, Sezi Çevik Onar
Multi Criteria Decision Making based on TOPSIS Method with Extended Fuzzy Sets	Hülya Torun, Münevver Gördebil
Assessment of Big Data Vendors by Intuitionistic Fuzzy TODIM	Fethullah Göçer, Gülçin Büyüközkan
Intuitionistic Fuzzy InterCriteria Approach to the Assessment in a Fast Food Restaurant	Velichka Traneva, Stoyan Tranev

(The time range 13:30-15:00 spans all four rows above.)

	A Grey Approach to Evaluate Success and Risk Factors in Supply Chain Management	Öykü Ilıcak, Gülçin Büyüközkan, Orhan Feyzioğlu
	Parallel Session 4	
Session Chair	**Gülfem Tuzkaya**	
Session Name	**Special Session on Intelligent Solution Methods for Supply Chain Problem**	
Session Room	**Room Maiden's Tower**	
	Paper Title	**Authors**
13:30-15:00	An Interpretive Structural Fuzzy Analysis for CPFR Implementation Barriers: A Food Supply Chain Case Study	Saliha Karadayi-Usta
	A Novel Neighborhood Generation Method for Heuristics and Application to Traveling Salesman Problem	Melike Öztürk, Çiğdem Alabaş Uslu
	Evaluation of Electric Vehicles Station Locations with an Extended TOPSIS Methodology Using Probabilistic Linguistic Term Sets	Gülfem Tuzkaya, Zeynep Tugce Kalender, Huseyin Selçuk Kılıç , Busra Gulnihan Dascıoglu
	Supplier Selection in a Construction Company Using Fuzzy AHP and Fuzzy TOPSIS	Ayse Nur Karabayir, Ahmet Reha Botsali , Yildiz Kose , Emre Cevikcan
	Supplier Selection Using Fuzzy Analytic Network Process	Bahar Sennaroglu, Orhan Akıcı
15:00-15:15	**COFFEE BREAK**	
	Parallel Session 1	
Session Chair	**Basar Oztaysi**	
Session Name	**Special Session on Real World Applications of Computational Intelligence in Big Data and Business Analytics**	

Session Room	Room Topkapı Palace	
	Paper Title	**Authors**
15:15-16:45	Click and Sales Prediction for Digital Advertisements: Real World Application for OTAs	Ahmet Tezcan Tekin, Ferhan Cebi
	Intelligent Visual Analysis in Employee Fraud Detection	Buket Doğan, Başar Öztayşi
	Predicting Cycle Times in Textile Manufacturing Using Artificial Neural Network	Erdem Onaran, Seda Yanık
	Modularization Challenges in Prolog: What to Divide and Conquer in AI	Ahmet Egesoy, Midainan Jean Kemtongue
	Analytics Powered by Cloud Infrastructure	Kıvanç Oktaş

Parallel Session 2

Session Chair	Issam Kouatli	
Session Name	Special Session on Intelligent and Fuzzy Systems in Business and Economics	
Session Room	Room Hagia Sophia	
	Paper Title	**Authors**
15:15-16:45	A Proposed Service Level Improvement Methodology for Public Transportation Using Interval Type-2 Fuzzy EDAS Based On Customer Satisfaction Data	Murat Levent Demircan, Suzan Tunc
	Evaluating indoor air quality in offices and classrooms using fuzzy logic	İhsan Erozan, Emre Özel, Damlanur Talaz
	Fuzzy Prioritization of Factors affecting Employer Branding for Employees	Ali Çolak, Aylin Adem, Metin Dağdeviren

	Fuzzy Volatility of Project Option Value based on Trapezoidal Membership Functions	Issam Kouatli, Skander Ben Abdallah

	Parallel Session 3	
Session Chair	Alvaro Labella Romero	
Session Name	Special session on Fuzzy Extensions and Its Application on Decision Making	
Session Room	Room Galata Tower	
	Paper Title	Authors
15:15-16:45	An integrated Interval-Valued Neutrosophic AHP & TOPSIS Methodology for Sustainable Cities' Challenges	Ali Karaşan, Cengiz Kahraman, Eda Bolturk
	Fuzzy Multi-Objective Decision Making Approach For Nuclear Power Plant Installation	Esra Çakır, H.Ziya Ulukan
	Decision Making Under Fuzzy Environment with Incomplete Information	Ayta Yazıcı, Tuncay Gürbüz
	FLINTSTONES 2.0 an Open and Comprehensive Fuzzy Tool for Multi-criteria Decision Analysis	Álvaro Labella, Luis Martínez
	An Integrated Balanced Scorecard &Fuzzy BOCR Decision Model for Performance Evaluation	Kübra Karabece, Tuncay Gürbüz

	Parallel Session 4	
Session Chair	Özlem Şenvar	
Session Name	Special Session on Data-Driven Decision Making with Uncertainty-II	

Session Room	Room Maiden's Tower	
	Paper Title	**Authors**
15:15-16:45	Customer Segmentation Method Determination Using Neutrosophic Sets	Cengiz Kahraman, Basar Oztaysi , Sezi Cevik Onar
	A Fuzzy Neural Tree for the Evaluation of Shape in an Architectural Design	Michael S. Bittermann, Ecenur Yavuz, Ozer Ciftcioglu
	Multi-Class Categorization of User-Generated Content in a Domain Specific Medium: Inferring Product Specifications from E-Commerce Marketplaces	Kemal Toprak Uçar, M. Borahan Tümer, Mustafa Kıraç
	Application of Multiple Imputation Using Fuzzy Archaeological Data	Tutku Tuncalı Yaman
	Analysis of Relation Between Human Development and Competitiveness Using Fuzzy ANP and DEA	Hakan Kılıç, Özgür Kabak
16:45-17:00	**INFUS Family Photo** **Registration Area**	
17:00-18:00	**WELCOME & OPENING CEREMONY with Traditional Turkish Music (Live)** **İTÜ Management Faculty Exhibition Center**	
DAY 2: WEDNESDAY (July 24, 2019)		
8:45-9:30	**Speech of Prof. Vicenc Torra on "Fuzzy sets in clustering: on fuzzy partitions"** **Amphi Dolmabahçe Palace** **Chair Sezi Cevik Onar**	

9:30-9:45	COFFEE BREAK	
9:45-10:30	***Speech of Prof. Oscar Castillo on "Nature-inspired optimization of type-2 fuzzy logic controllers"*** ***Amphi Dolmabahçe Palace*** ***Chair Sezi Cevik Onar***	
10:30-10:45	COFFEE BREAK	
	Parallel Session 1	
Session Chair	*Altan Cakir*	
Session Name	*Special Session on Real World Applications of Computational Intelligence in Big Data and Business Analytics*	
Session Room	*Room Topkapı Palace*	
	Paper Title	*Authors*
10:45-12:15	Process Mining Application for Analysis of Customer's Different Visits in a Shopping Mall	Onur Dogan, Carlos Fernandez-Llatas , Basar Oztaysi
	A fuzzy base classifier for fuzzy data included location segmentation	Sultan Ceren Öner, Basar Öztaysi
	Real Time Content-Based News Recommendation in Turkish with Apache Spark	Didem Makaroğlu, Altan Çakır, Mert Candar, Koray Kocabaş
	Use of Process Mining in Bank Real Estate Transactions and Visualization with Fuzzy Models	Orhan Engin, Ibrahim E. Yazici
	An Empirical Analysis of Swarm Intelligence Techniques on ATM Cash Withdrawal Forecasting	Ali Fuat Alkaya, Esma Danacı, Onur Gürkan Gültekin
	Parallel Session 2	
Session	*Dorota Kuchta*	

Chair		
Session Name	**Special Session on Intelligent and Fuzzy Systems in Business and Economics**	
Session Room	**Room Hagia Sophia**	
	Paper Title	**Authors**
10:45-12:15	Measuring the Performance of Factoring and Financial Leasing Firms Under Balanced Scorecard Perspective Using Pythagorean Fuzzy Sets	Ezgi Demir, Çağlar Karamaşa , Serpil Altınırmak, Namık Kemal Erdoğan, Basil Okoth
	A linguistic system of defining and controlling project success	Dorota Kuchta
	Application of Fuzzy TOPSIS for credit scoring	Nihad Mehdi
	Stakeholder Communication Impact on the Success of IT Project – Fuzzy Approach	Barbara Gladysz, Dorota Kuchta
	A Hesitant Fuzzy Correspondence Analysis	Ozgur Yanmaz, Cafer Erhan Bozdag, Cigdem Kadaifci
Parallel Session 3		
Session Chair	**Gülfem Tuzkaya**	
Session Name	**Special Session on Intelligent Solution Methods for Supply Chain Problem**	
Session Room	**Room Galata Tower**	
	Paper Title	**Authors**
10:45-12:15	Healthcare Service Provider Type Selection of the Medical Tourists by Using Neutrosophic Sets	Saliha Karadayi-Usta, Cafer Erhan Bozdag
	Evaluation of Small Household Appliances' Collection Method with fuzzy MCDM approach: A Case of Turkey	Aziz Kemal Konyalıoğlu, İlke Bereketli Zafeirakopoulos

	Supply Chain Greenness Assessment Based on Intuitionistic Fuzzy Approaches	Gülfem Tuzkaya, Mete Han Topgul, Huseyin Selcuk Kilic
	Evaluation of Supply Chain Analytics Maturity Level with a Hesitant Fuzzy MCDM Technique	Esin Mukul, Merve Güler, Gülçin Büyüközkan
	An Integrated Model with Interval Valued Neutrosophic Sets for the Selection of Lean and Sustainable Suppliers	Ahmet Selçuk Yalçın, Huseyin Selcuk Kilic, Nadide Caglayan
Parallel Session 4	
Session Chair		**Ramin Vatankhah**
Session Name		**Special Session on Intelligent Techniques in Engineering Management**
Session Room		**Room Maiden's Tower**
	Paper Title	**Authors**
10:45-12:15	Parameter Estimation and Fuzzy Controller Design for a Two-axis Gimbal	Roya Jahanandish, Amir Khosravifard, Ramin Vatankhah, Vahid Cheraghi
	A Study on Vulnerability Parameters of Signed Fuzzy Graphs	Sujatha R, R. Sundareswaran, Goksen Bacak Turan
	A Conceptual Study on RPAs as of Intelligent Automation	Özlen Erkal Sönmez, Dilek Yılmaz Börekçi
	Intelligent Systems for Disaster Management: Unmanned Aerial Vehicles' Surveillance Problem with Energy Consumption Constraints	Ebru Angün, Uğurcan Dündar
	Robust Fuzzy Sliding Mode Controller Design for a Multiple Sclerosis Model	Ramin Vatankhah, Elnaz Kohanpour, Mohammad Eghtesad, Sajjad Taghvaei
12:15-13:30		**LUNCH (see the map behind the booklet)**
Parallel Session 1	

Session Chair	Basar Oztaysi	
Session Name	Special Session on Real World Applications of Computational Intelligence in Big Data and Business Analytics	
Session Room	Room Topkapı Palace	
	Paper Title	Authors
13:30-15:00	Gender Prediction from Classified Indoor Customer Paths by Fuzzy C-Medoids Clustering	Onur Dogan, Basar Oztaysi
	Solar Radiation Prediction based on Machine Learning for Istanbul in Turkey	Veysel Çoban, Sezi Çevik Onar
	Prediction of Turkish Super League Match Results Using Supervised Machine Learning Techniques	Ahmet Emin Sarıcaoğlu, Abidin Aksoy, Tolga Kaya
	Football Player Value Assessment Using Machine Learning Techniques	Ahmet Talha Yiğit, Barış Samak, Tolga Kaya
	A New Cluster-Aware Regularization of Neural Networks	Tolga Ahmet Kalaycı, Umut Asan, Murat Can Ganiz, Aydın Gerek

Parallel Session 2

Session Chair	Masoud Shayganmehr	
Session Name	Special Session on Data-Driven Decision Making with Uncertainty-I	
Session Room	Room Hagia Sophia	
	Paper Title	Authors
13:30-15:00	A predictive modeling approach to debt collection process	Sezi Cevik Onar, Basar Oztaysi, Cengiz Kahraman, Ersan Öztürk
	Fuzzy Logic Methods in Decision-Making Processes: Application in the Shotgun Sector	Merve Kadan, Gökhan Özkan, Mehmet Hilmi Özdemir, Çiğdem Baskıcı, Yavuz Ercil

	Selecting Strategic Partner for Iranian Official Airline based on Mixed Fuzzy AHP and COPRAS Methods	Masoud Shayganmehr, Gholam Ali Montazer, Kamran Nourianfar
	Suitability Evaluation of Blockchain–Based Systems Using Fuzzy ANP- A Case Study in a Logistics Company	Ayça Maden
	Career Planning with Personality Inventories and Intuitionistic Fuzzy Analytic Hierarchy Process	Şeymanur Kurt, Lale Özbakır

Parallel Session 3

Session Chair	Farzin Piltan	
Session Name	Special session on Fuzzy Extensions and Its Application on Decision Making	
Session Room	Room Galata Tower	
	Paper Title	**Authors**
13:30-15:00	Evaluation of Social Sustainable Development Factors Using Buckley's Fuzzy AHP Based on Z-numbers	Nurdan Yildiz, Cengiz Kahraman
	Graph Based Anomaly Detection Using Fuzzy Clustering	Çağatay Ateş, Süleyman Özdel, Emin Anarım
	Analysis of Success Factors in Aviation 4.0 using Integrated Intuitionistic Fuzzy MCDM Methods	Gülçin Büyüközkan, Orhan Feyzioğlu, Celal Alpay Havle
	Analysis of e-Government Strategies with Hesitant Fuzzy Linguistic Multi-Criteria Decision Making Techniques	Esin Mukul, Merve Güler, Gülçin Büyüközkan
	Advanced Fuzzy Observer-based Fault Identification for Robot Manipulators	Jong-Myon Kim, Farzin Piltan

Parallel Session 4

	Paper Title	Authors
Session Chair	**Fatih Tüysüz**	
Session Name	**Special Session on Real World Applications of Computational Intelligence in Big Data and Business Analytics**	
Session Room	**Room Maiden's Tower**	
	Paper Title	Authors
13:30-15:00	Social Media and Clickstream Analysis in Turkish News with Apache Spark	Didem Makaroğlu, Altan Çakır, Koray Kocabaş
	An Evaluation Model for Intelligent Farming Systems: A Fuzzy Logic Based Simulation Approach	Yakup Çelikbilek, Fatih Tüysüz
	Forecasting Box Office Performances Using Machine Learning Algorithms	Sendy Çağlıyor, Başar Öztayşi, Selime Sezgin
	Decomposing the Impact of Sales Promotions on a Large Scale Retailer's Business Performance	Ömer Zeybek, Tolga Kaya, Burç Ülengin, Işıl Öztürk, Yavuz Ercil
	Car Damage Analysis for Insurance Market Using Convolutional Neural Networks	Cihat Tolga Artan, Tolga Kaya
15:00-15:15	**COFFEE BREAK**	
	Parallel Session 1	
Session Chair	**Özlem Şenvar**	
Session Name	**Special Session on Aggregation functions: recent trends and developments, and applications**	
Session Room	**Room Topkapı Palace**	
	Paper Title	Authors
15:15-16:45	Principals of Spherical Fuzzy sets	Fatma Kutlu Gündoğdu

	Evolution of L-fuzzy contexts associated with criteria	Cristina Alcalde, Ana Burusco
	An Integrated Hesitant Fuzzy Approach to a Job Evaluation and Application in a Food Company	Ahmet Sarucan, Aysel Söğüt
	Project & Analyst & Software Engineer Ranking and Job Assignment Problem Solution in Software Development Projects with Fuzzy Multi Criteria Decision Making Techniques	İbrahim Yel
	Fuzzy Linguistic Integrated Methodology for Sustainable Hospital Building Design	Deniz Uztürk, Alvaro Labella Romero, Gülçin Büyüközkan, Luis Martinez

	Parallel Session 2
Session Chair	Cengiz Kahraman
Session Name	Special Session on Aggregation functions: recent trends and developments, and applications
Session Room	Room Hagia Sophia
	Paper Title	Authors

	Paper Title	Authors
15:15-16:45	Performance Measurement of Debt Collection Firms Using Spherical Fuzzy Aggregation Operators	Cengiz Kahraman, Sezi Cevik Onar , Basar Oztaysi
	Spherical Fuzzy Sets and Decision Making Applications	Fatma Kutlu Gündoğdu, Cengiz Kahraman
	Malcolm Baldrige National Quality Award Assessment Using Interval Valued Pythagorean Fuzzy Sets	Elif Haktanir, Cengiz Kahraman
	On the WABL Defuzzification Method for Intuitionistic Fuzzy Numbers	Ali Mert

	Agile supplier evaluation using a fuzzy decision making procedure based on fuzzy measure and fuzzy integral	Mehtap Dursun, Nazlı Göker, Esra Albayrak
	Parallel Session 3	
Session Chair	***Nihal Erginel***	
Session Name	***Special Session on Soft Computing Approaches in Data Mining and Text Retrieval: Theories and Applications***	
Session Room	***Room Galata Tower***	
	Paper Title	***Authors***
15:15-16:45	Combining Classifier Ensembles with fuzzy clustering to predict online food sales	Mahir Oner, Ceren Oner
	Intuitionistic Fuzzy Density Based Spatial Clustering of Applications with Noise: IFDBSCAN	Mustafa Ünver, Nihal Erginel
	DIFACONN-miner II Algorithm to Discover Causes of Quality Defects	Sinem Kulluk, Lale Özbakır
	Exploitation and Comparison of Computational Intelligence Techniques on the Feature Selection Problem	Ali Fuat Alkaya, Gülşah Tarakçı Kalaycı, Ramazan Algın
	A Machine Learning-Based User Authentication Model using Mobile App Data	Yosef Ashibani, Qusay H. Mahmoud
	Parallel Session 4	
Session Chair	***Gülçin Büyüközkan***	
Session Name	***Special session on Fuzzy Extensions and Its Application on Decision Making***	
Session Room	***Room Maiden's Tower***	

	Paper Title	Authors
15:15-16:45	Pipeline Leak Detection and Estimation Using Fuzzy-Based PI Observer	Jong-Myon Kim, Farzin Piltan
	Extending QFD with Pythagorean Fuzzy Sets for Sustainable Supply Chain Management	Gülçin Büyüközkan, Gizem Çifçi
	Evaluation of Smart Health Technologies with Hesitant Fuzzy MCDM Methods	Esin Mukul, Merve Güler, Gülçin Büyüközkan
	A new community detection algorithm based on fuzzy measures	Inmaculada Gutiérrez, Daniel Gómez, Javier Castro, Rosa Espínola
	Research and Development Project Selection via IF-DEMATEL and IF-TOPSIS	Ahmet Selçuk Yalçın, Huseyin Selcuk Kilic, Ezgi Guler
17:00-18:00	**AWARD CEREMONY** *Amphi Dolmabahçe Palace*	
18:30-23:00	**GALA DINNER & CRUISE**	
	DAY 3: THURSDAY (July 25, 2019)	
8:45-9:00	**COFFEE BREAK**	
	Parallel Session 1	
Session Chair	**Serhat Aydın**	
Session Name	**Special Session on Intuitionistic Fuzzy Decision Making: Theory and Applications**	
Session	**Room Topkapı Palace**	

Room	Paper Title	Authors
	Paper Title	**Authors**
9:00-10:30	Location Selection by Intuitionistic Fuzzy and Neutrosophic Aggregation Operators	Eda Boltürk, Murat Gülbay, Cengiz Kahraman
	Evaluation of logistics service providers with uncertain dynamic intuitionistic fuzzy sets	Serhat Aydın
	A Likelihood Method for The Comparison of Intuitionistic Trapezoidal Fuzzy Numbers	Hatice Ercan Teksen
	Site Selection for Solar Power Plants Using Integrated Two-stage Hybrid Method based on Intuitionistic Fuzzy AHP & COPRAS approach	Sukran Seker
	Make-or-Buy Decision Using Interval-Valued Intuitionistic Fuzzy COPRAS Method	Elif Haktanir

Parallel Session 2

Session Chair	**Cengiz Kahraman**
Session Name	**Special session on Fuzzy sets in sustainable energy and environment**
Session Room	**Room Hagia Sophia**

	Paper Title	Authors
	Paper Title	**Authors**
9:00-10:30	An intuitionistic fuzzy axiomatic design approach for the evaluation of solid waste disposal methods	Selçuk Çebi, Esra İlbahar, Cengiz Kahraman
	Assessment of renewable energy alternatives with Pythagorean fuzzy WASPAS method: A case study of Turkey	Esra İlbahar, Selçuk Çebi, Cengiz Kahraman
	Pythagorean Fuzzy AHP Method for the Selection of the Most Appropriate Clean Energy Technology	Ali Karaşan, Cengiz Kahraman, Fatma Kutlu Gündoğdu

Paper Title	Authors
Spherical Fuzzy VIKOR Method and Its Application to Waste Management	Fatma Kutlu Gündoğdu, Cengiz Kahraman, Ali Karaşan
AS/RS Technology Selection using Spherical Fuzzy TOPSIS and Neutrosophic TOPSIS	Eda Boltürk

Parallel Session 3

Session Chair	**İhsan Kaya**
Session Name	**Special Session on Fuzzy Sets Application in Defense Industry**
Session Room	**Room Galata Tower**

	Paper Title	Authors
	Neutrosophic TOPSIS Method for Technology Evaluation of Unmanned Aerial Vehicles (UAVs)	Ali Karaşan, İhsan Kaya
	Risk Analysis of the Autonomous Vehicle Driving Systems by Using Pythagorean Fuzzy AHP	Melike Erdoğan, İhsan Kaya, Ali Karaşan, Ayşenur Budak
9:00-10:30	Evaluating Blockchain Risks by Using a MCDM Methodology Based on Pythagorean Fuzzy Sets	Betül Özkan, İhsan Kaya, Ali Karaşan, Melike Erdoğan
	A Fuzzy Based MCDM Methodology for Risk Evaluation of Cyber Security Technologies	Melike Erdoğan, İhsan Kaya, Ali Karaşan, Ayşenur Budak, Murat Çolak
	Evaluation of Defense Strategies by Using A MCDM Methodology Based On Neutrosophic Sets: A Case Study for Turkey	Betül Özkan, İhsan Kaya, Ali Karaşan, Melike Erdoğan, Murat Çolak

Parallel Session 4

Session Chair	**Sezi Cevik Onar**
Session Name	**Special Session on Intelligent Techniques in Engineering Management**

Session Room	Room Maiden's Tower	
	Paper Title	**Authors**
9:00-10:30	Innovative Teaching Feedback System Design Using Hesitant Fuzzy AHP Approach	Basar Oztaysi, Sezi Cevik Onar, Cengiz Kahraman
	Smart Meter Selection Using Pythagorean Fuzzy Analytic Hierarchy Process	Mehmet Yörükoğlu, Serhat Aydın
	An Intelligent Feature Selection Method for Finding Rough Set Reducts Based on Tug of War Optimization Algorithm	Numan Çelebi, Esin Ayşe Zaimoğlu, Nilüfer Yurtay
	Evaluation of Entrepreneurial Support Projects by Using IFS Type-2 Fuzzy Sets	Sezi Cevik Onar, Başar Öztayşi, Cengiz Kahraman
	Evaluation of User Preference Criteria on Smart Technologies for Smart Buildings	Irem Ucal Sari, Doruk Karlikaya
10:30-10:45	**COFFEE BREAK**	
	Parallel Session 1	
Session Chair	**Serhat Aydın**	
Session Name	**Special session on Fuzzy Extensions and Its Application on Decision Making**	
Session Room	**Room Topkapı Palace**	
	Paper Title	**Authors**
10:45-12:15	A new ranking method for triangular intuitionistic fuzzy numbers	Gültekin Atalık, Sevil Senturk
	An Intuitionistic Fuzzy Cognitive Map Approach to Evaluate Success Factors of Lean Six Sigma Project Management Methodology	Nazli Goker, Mehtap Dursun, Hakan Mutlu

	Some Topological Indices in Fuzzy Graphs	Shriram K, Sujatha Ramalingam, Sundareswaran Raman, Narasimman Srinivasan
	Supplier Selection with Intuitionistic Fuzzy AHP and Goal Programming	Ömer Özkan, Serhat Aydin
	Design Factors for Sustainable University Campus Via Interval Type 2 Fuzzy Set	Sema Kayapınar Kaya, Nihal Erginel
Parallel Session 2	
Session Chair	**A. Cagri Tolga**	
Session Name	**Special Session on Intelligent and Fuzzy Systems in Business and Economics**	
Session Room	**Room Hagia Sophia**	
	Paper Title	***Authors***
10:45-12:15	Evaluating Innovation Projects in Air Cargo Sector with Fuzzy COPRAS	A. Cagri Tolga, Gül Durak
	Energy Management Maturity Model Based on Fuzzy Logic	Veysel Çoban, Sezi Çevik Onar
	Fuzzy Evaluation of a New Search Engine Project to Fundraise NGOs	Irem Ucal Sari, Duygu Sergi , Can Aytore
	A Methodology Proposal for Supplier Performance Evaluation: Fuzzy DEMATEL Method with Sustainability Integrated SCOR Model	Sinem Buyuksaatci Kiris, Dilek Yılmaz Börekçi, Tuğçe Koç,
	Fuzzy AHP-QFD methodology and its application to Retail Chain	Sukran Seker
Parallel Session 3	
Session Chair	**Selçuk Çebi**	
Session	**Special Session on Intelligent Systems for Risk Analysis under Uncertainties**	

Name	
Session Room	**Room Galata Tower**

	Paper Title	Authors
10:45-12:15	Risk Mitigation in Conference Tourism Service Supply Chains	Saliha Karadayi-Usta
	Failure Mode and Effect Analysis Using Interval Valued Neutrosophic Sets	Elif Haktanir, Cengiz Kahraman
	A risk assessment approach using both stochastic data and subjective judgments	Nurdan Ece Oz, Muhammet Gul, Faruk Serin, Erkan Celik, Suleyman Mete
	Human Reliability Analysis in Healthcare: A Scenario Analysis	Yesim Kop Naskalı, Tuncay Gürbüz, Y. Esra Albayrak
	A Hybrid Risk Assessment Method for Mining Sector Based on QFD, Fuzzy Logic and AHP	Selçuk Çebi, Ulaş Çınar

Parallel Session 4

Session Chair	**Sezi Cevik Onar**
Session Name	**Special Session on Intelligent Techniques in Engineering Management**
Session Room	**Room Maiden's Tower**

	Paper Title	Authors
10:45-12:15	Weighting Performance Indicators of Debt Collection Offices By Using Hesitant Fuzzy AHP	Basar Oztaysi, Mustafa Yücel, Sezi Cevik Onar, Ersan Öztürk, Cengiz Kahraman
	Multi-criteria & multi-expert wind power farm location selection using a Pythagorean Fuzzy Analytic Hierarchy Process	Irem Otay, Miguel Jaller
	Dynamic Intuitionistic Fuzzy Multi Attribute Decision Making for CNC Router Selection	Mehmet Kabak, Ahmet Aktas, Serhat Aydın

	Diagnosis of Heart Disease Using An Intelligent Method: A Hybrid ANN – GA Approach	Özlen Erkal Sönmez, Miray Akgül, Tuncay Özcan
	Design and Implementation of Adaptive Fuzzy PD Line Following Robot	Anıl Sezgin, Ömer Çetin
12:15-13:30	**LUNCH & CLOSING (see the map behind the booklet)**	
14:00-19:00	**TOURISTIC TOUR**	