

1st INTERNATIONAL LOTFI A. ZADEH CONFERENCE:
FUZZY LOGIC AND APPLICATIONS

DECEMBER 20-21, 2021

BAKU STATE UNIVERSITY | BAKU, AZERBAIJAN

December 20, Monday

Opening Ceremony

Baku State University, Main Hall

[Link to session](#)

09:00 - 10:00	Registration
10:00 - 11:00	Opening Ceremony Group Photo
Plenary session	
Chairs: Alexander Sostaks (Latvia), Irina Perfiluyeva (Czech Republic)	
Main Hall	
Link to session	
11:00 - 11:45	Selective properties in fuzzy and soft topological spaces Kočinac Ljubisa <i>University of Nis, Serbia</i>
11:45 - 12:30	A modern approach to fuzzy systems as a bridge between connectionist and symbolic systems Alexey Averkin <i>Federal Research Center "Computer Science and Control" of Russian Academy of Sciences, Russia</i>
12:30 - 14:00	Lunch
Keynote speakers' session	
Chair: Kočinac Ljubisa (Serbia), Cagdas Hakan Aladag (Turkey)	
Main Hall	
Link to session	
14:00 - 14:30	Fuzzy relations as the base for fuzzification of different mathematical structures Alexander Sostaks <i>University of Latvia, Latvia</i>

14:30 - 15:00	Model Evaluation Criterion Based on Membership Values Cagdas Hakan Aladag <i>Hacettepe University, Turkey</i>
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Parallel sessions

<p>Session 1-1: Applications of Fuzzy Sets/Fuzzy Control/Fuzzy Measure and Metrics/Fuzzy Topology/ Fuzzy Algebra/Fuzzy Analysis/Machine Learning Application/General Engineering Applications/Big Data and Data Mining</p> <p>Chair: Kočinac Ljubisa (Serbia), Cagdas Hakan Aladag (Turkey) Main Hall Link to session</p>	
15:00 - 15:15	Complex fuzzy evaluation of social capital Asif Aliyev <i>Institute of Control Systems, Azerbaijan</i>
15:15 - 15:30	Fuzzy differential equations in different metric spaces Fuad Gurbanov <i>Baku State University, Azerbaijan</i>
15:30 - 15:45	Comparison of various machine learning methods for detecting cyberbullying in twitter messages (online) Mikayil Sadigzade <i>Dokuz Eylul University, Turkey</i>
15:45 - 16:15	Coffee Break / Poster session
16:15 - 16:30	Regularity properties of boundary functions for biorthogonal wavelets (online) Ahmet Alturk <i>Amasya University, Turkey</i>
16:30 - 16:45	Evaluation of microcredit borrowers using some scoring and fuzzy methods of the relevant data analysis Ramin Rzayev <i>Institute of Control Systems of ANAS, Azerbaijan</i>
16:45 - 17:00	Medical diagnosis problem by using neutrosophic soft set (online) Erdem Coshkun <i>Kocaeli University, Turkey</i>
17:00 - 17:15	Boundary handling for orthogonal wavelets (online) Ahmet Alturk ¹ , Fritz Keinert ² ¹ <i>Amasya University, Turkey</i>

	² Iowa State University, USA
17:15 - 17:30	Review of recent studies on detection of cyberbullying with machine learning techniques (online) Atajan Rovshenov <i>Dokuz Eylul University, Turkey</i>
17:30 - 17:40	Homology theory in the category of soft topological Sabuhi Abdullayev <i>Baku State University, Azerbaijan</i>
17:40 - 17:50	Fuzzy approach to forecasting the dynamics of the spread of oil pollution at sea Reyhan Shikhliinskaya <i>Baku State University, Azerbaijan</i>
17:50 - 18:00	Inverse and direct systems of fuzzy soft topological spaces Kemale Veliyeva <i>Baku State University, Azerbaijan</i>
18:00 - 18:10	The most main idea of Lotfi Zadeh in artificial intelligence Elmira Isayeva <i>Institute of Physics of ANAS, Azerbaijan</i>
18:10 - 18:20	On a fuzzy renewal-reward model with generalized reflecting barrier (online) Gever Bashak <i>University of Turkish Aeronautical Association, Turkey</i>
18:20 - 18:30	Creation of fuzzy model of a solar air collector Nurana Panhahli <i>Baku State University, Azerbaijan</i>
18:30 - 18:40	On a type of local function on ideal topological spaces (online) Ahu Acikgoz ¹ , T. Noiri ² , Busra Golpinar ³ ^{1,3} Balikesir University, Turkey ² Shiokita-Cho Hinagu, Yatsushiro-Shi, Kumamoto-Ken, Japan

Parallel sessions

Session 2-1:

Applied Mathematics and Approximation Theory/Differential equations and applications/Deep Learning Applications/Nonlinear Dynamics Systems and Chaos Theory/Sematic web/Large-scale visualization/Statistical analysis/Computational intelligence

Chair: Yelena Mustafayeva (Azerbaijan), Fuad Gurbanov (Azerbaijan)

Hall 1

[Link to session](#)

15:00 - 15:15	Stability of an elastic ring under the action of a non-hydrostatic compressive load Munavvar Huseynli <i>Baku State University, Azerbaijan</i>
15:15 - 15:30	Existence of nodal solutions to a certain nonlinear fourth order eigenvalue problem Ziyatxan Aliyev <i>Baku State University, Azerbaijan</i>
15:30 - 15:45	Existence and uniqueness results for the first-order non-linear differential equations with multi-point boundary conditions Yagub Sharifov <i>Baku State University, Azerbaijan</i>
15:45 - 16:15	Coffee Break / Poster session
16:15 - 16:30	Fundamental solution of a third order three-dimensional composite equation Yelena Mustafayeva <i>Baku State University, Azerbaijan</i>
16:30 - 16:45	On problem for linear parabolic type of differential equation with integral conditions Aygün Abbasova <i>Baku State University, Azerbaijan</i>
16:45 - 17:00	Factor analysis for estimating of sustainability of socio-economic development Shargiya Abbasova <i>Baku State University, Azerbaijan</i>
17:00 - 17:15	An optimal control problem with a coefficient for a system of second order hyperbolic equations Tunzala Huseynova <i>Azerbaijan State Pedagogical University, Azerbaijan</i>
17:15 - 17:30	Normalization of densities of distributions of output processes of dynamic systems using Hermite polynomial decomposition in the environment of the maple Gurban Gasimov <i>Baku State University, Azerbaijan</i>
17:30 - 17:45	On interval modeling of fuzzy uncertainty Shabnam Karimova <i>Baku State University, Azerbaijan</i>
17:45 - 18:00	On positive solutions of some nonlinear Sturm-Liouville problems with indefinite weight Mazahir Panahov <i>Baku State University, Azerbaijan</i>

18:00 - 18:15	Application of fuzzy logic in modeling tasks (online) Gunel Novruzova <i>Ganja State University, Azerbaijan</i>
18:15 - 18:30	Investigation of large elastic-plastic deformations using the left Cauchy-green tensor Laura Fatullayeva <i>Baku State University, Azerbaijan</i>
18:30 - 18:45	Methods of intellectual data analysis and applications Dilare Guluzadeh <i>Azerbaijan Technical University, Azerbaijan</i>

December 21, Tuesday

Plenary session

Chair: Aleksandr Sostaks (Latvia), Alexey Averkin (Russian Federation)

Hall 3

[Link to session](#)

09:00 - 09:45	Fuzzy sets in a new paradigm of learning from data Irina Perfiliyeva <i>University of Ostrava, Czech Republic</i>
10:45 - 11:30	On one generalization of topological and soft topological spaces Sadi Bayramov <i>Baku State University, Azerbaijan</i>
11:30 - 12:00	Coffee Break / Poster session

Keynote speakers' session

Chair: Irina Perfiliyeva (Czech Republic), Sadi Bayramov (Azerbaijan)

Hall 3

[Link to session](#)

12:00 - 12:30	Fast algorithms for scheduling swarms of robots and drones with mixed exact and fuzzy constraints (online) Eugene Levner <i>Holon Institute of Technology, Israel</i>
12:30 - 13:00	A vanguard approach for enhancing learning and training across contexts and settings (online) Dan Kohen-Vacs <i>Holon Institute of Technology, Israel</i>
13:00 - 14:00	Lunch

Parallel sessions

Session 1-1:

Applications of Fuzzy Sets/Fuzzy Control/Fuzzy Measure and Metrics/Fuzzy Topology/ Fuzzy Algebra/Fuzzy Analysis/Machine Learning Application/General Engineering Applications/Big Data and Data Mining

Chair: Alexey Averkin (Russian Federation), Cagdas Hakan Aladag (Turkey)

Hall 3

[Link to session](#)

14:00 - 14:15	Neighborhood structures of bipolar fuzzy supra topological spaces Malkoch Hami, Pazar Varol Banu <i>Kocaeli Universty, Turkey</i>
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14:15 - 14:30	<p>Identification of a harmonically varying external source in wave equation from neumann-type boundary measurement</p> <p>Pektas Burhan¹, Chatak M.² ¹<i>Uskudar University, Turkey</i> ²<i>American University of the Middle East, Kuwait</i></p>
14:30 - 14:45	<p>Evaluation of the academic performances of universities by the fuzzy analytical hierarchy process</p> <p>Hayrunnisa Ergin, Efendi Nasibov <i>Dokuz Eylul University, Turkey</i></p>
15:45 - 16:00	<p>Theoretical basis of artificial neural networks</p> <p>Behsati Narmina <i>Azerbaijan State Oil and Industry University, Azerbaijan</i></p>
16:00 - 16:30	Coffe break / Poster Session
16:30 - 16:45	<p>A study on kind of compactness on bipolar soft topological spaces</p> <p>Sadi Bayramov¹, Cigdem Gunduz Aras² ¹<i>Baku State University, Azerbaijan</i> ²<i>Kocaeli University, Turkey</i></p>
16:45 - 17:00	<p>On bipolar soft metric spaces</p> <p>Hande Poshul¹, Cigdem Gunduz Aras² ¹<i>Kilis 7 Aralik University, Turkey</i> ²<i>Kocaeli University, Turkey</i></p>
17:00 - 17:15	<p>Zadeh's fuzzy sets theory in distribution of current in semiconductors</p> <p>Elmira Isayeva <i>Institute of Physics of ANAS, Azerbaijan</i></p>
17:15 - 17:30	<p>Fuzzy evaluation of air quality of Azerbaijan</p> <p>Pur Riza Samir <i>Institute of Control Systems of ANAS, Azerbaijan</i></p>
17:30 - 17:45	<p>A multi-criteria decision-making method of trapezoidal fuzzy multi numbers under some aggregation operators</p> <p>Kesen Davud, Deli Irfan <i>Kilis 7 Aralik University, Turkey</i></p>
17:45 - 18:00	<p>A gradient boosting decision tree algorithm with fuzzy data (online)</p> <p>Efendi Nasibov, Resmiye Nasiboglu <i>Dokuz Eylul University, Turkey</i></p>
18:00 - 18:15	<p>On a probabilistic soft multiset and its application in matrix (online)</p> <p>Coshkun Erdem</p>

	<i>Kocaeli University, Turkey</i>
18:15 - 18:30	An inverse problem with the nonlocal Dirichlet boundary condition (online) Coshkun Erdem <i>Kocaeli University, Turkey</i>
18:30 - 18:45	On a Semi-Makovian stochastic process with fuzzy gamma distributed interference of chance Rovshan Aliyev <i>Baku State University, Azerbaijan</i>

Poster session

December 20, 15:45 - 16:15

1	<p>On the solvability of the inverse boundary-value problem for an equation of the third order with integral conditions</p> <p>Iskenderov N.Sh.¹, Alizade U.S.² ¹<i>Baku State University, Azerbaijan</i> ²<i>Nakhcivan State University, Azerbaijan</i></p>
2	<p>Homotopic sets of soft topological spaces</p> <p>Jafarli V.F. <i>Baku State University, Azerbaijan</i></p>
3	<p>Boundary problem for the thin plates bending equation with the integral conditions</p> <p>Mammadova Y.V., Mehraliyev Y.T. <i>Baku State University, Azerbaijan</i></p>
4	<p>A problem related with Jackson Bernstein classic theorem for periodic functions</p> <p>Mamedkhanov J.I., Dadashova İ.B. <i>Baku State University, Azerbaijan</i></p>
5	<p>On an inverse problem for the sixth order Boussinesq equation</p> <p>Farajov A.S. <i>Azerbaijan State Pedagogical University, Azerbaijan</i></p>
6	<p>The most main idea of Lutfi Zadeh</p> <p>Isayeva E.A., Aliyeva A.M. <i>Institute of Physics of ANAS, Azerbaijan</i></p>