



# 3rd International Conference on Information Technologies and Their Applications

## **PROGRAM**

April 22-24, 2026  
Baku, Azerbaijan





## Time-Table of the Conference

<b>22 April (Wednesday)</b>	
09:00 – 10:00	Registration
10:00 – 10:50	Opening Ceremony (Hall 1)
10:50 – 12:10	Plenary Session (Hall 1)
12:10 – 12:30	Coffee Break
12:30 – 14:00	Section 1 "ICT in Automation and Control Systems" (Hall 1)
	Section 4 "ICT in Industry and Construction" (Hall 2)
	Section 8 "ICT and Intelligent Systems in Sociology and Economics" (Hall 3)
	Section 5 "ICT in Pattern Recognition" (Hall 4)
14:00 – 15:00	Lunch Break
15:00 – 16:20	Section 1 "ICT in Automation and Control Systems" (Hall 1)
	Section 4 "ICT in Industry and Construction" (Hall 2)
	Section 8 "ICT and Intelligent Systems in Sociology and Economics" (Hall 3)
	Section 5 "ICT in Pattern Recognition" (Hall 4)
16:20 – 16:40	Coffee Break
16:40 – 18:00	Section 1 "ICT in Automation and Control Systems" (Hall 1)
	Section 4 "ICT in Industry and Construction" (Hall 2)
	Section 8 "ICT and Intelligent Systems in Sociology and Economics" (Hall 3)
	Section 5 "ICT in Pattern Recognition" (Hall 4)
<b>23 April (Thursday)</b>	
10:00 – 11:20	Plenary Session (Hall 1)
11:20 – 11:40	Coffee Break
11:40 – 13:00	Section 6 "ICT in Decision-Making" (Hall 1)
	Section 7 "ICT in Modeling and Simulation" (Hall 2)
	Section 3 "Cybersecurity of Information and Communication Systems" (Hall 3)
	Section 5 "ICT in Pattern Recognition" (Hall 4)
13:00 – 14:00	Lunch Break
14:00 – 15:20	Section 6 "ICT in Decision-Making" (Hall 1)
	Section 7 "ICT in Modeling and Simulation" (Hall 2)
	Section 2 "Technical Means and Tools of Information and Communication Systems" (Hall 3)

	Section 8 "ICT and Intelligent Systems in Sociology and Economics" (Hall 4)
15:20 – 15:40	Coffee Break
15:40 – 17:00	Section 6 "ICT in Decision-Making" (Hall 1)
	Section 7 "ICT in Modeling and Simulation" (Hall 2)
	Section 2 "Technical Means and Tools of Information and Communication Systems" (Hall 3)
17:00 – 18:00	Closing Ceremony (Hall 1)
<b>24 April (Friday)</b>	
Excursions	

The place where the conference will be held:

Azerbaijan University of Architecture and Construction,  
Room 1311 of Building 1, 11 Ayna Sultanova Street, Baku  
AZ1073, Azerbaijan

## Organizers

Ministry of Science and Education of the Republic of Azerbaijan  
(Azerbaijan)

Azerbaijan University of Architecture and Construction (Azerbaijan)

Institute of Mathematics (Azerbaijan)

Institute of Information Technology (Azerbaijan)

Wayne State University (USA)

Bydgoszcz University of Science and Technology (Poland)

Ege University (Türkiye)

V.M. Glushkov Institute of Cybernetics (Ukraine)

Institute of Information and Computational Technologies  
(Kazakhstan)

University of Thessaly (Greece)

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- Gulchohra Mammadova

Co-chair:

- Messoud Efendiev
- Kamran Imanov

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**April 22 (Wednesday)**

## **Program**

### **3rd International Conference on Information Technologies and Their Applications (ITTA, April 22–24, 2026)**

**10:00 – 10:50**  
**Hall 1**

#### **Opening Ceremony**

*Moderator – Prof. Nigar Aslanova*

- Prof. Gulchohra Mammadova
- Prof. Rasim Alguliyev
- Prof. Telman Aliev
- Prof. Sedat Akleylek

**10:50 – 12:10**  
**Hall 1**

#### **Plenary Session**

*Moderator – Prof. Nigar Aslanova*

1. Sedat Akleylek. Post-Quantum Cryptographic Protocols: from Theory to Practice (Institute of Computer Science, University of Tartu, Estonia).
2. Samir Rustamov. Building Speech Recognition Systems that Work in the Real World (ADA University, School of IT & Engineering, Azerbaijan).



## April 22 (Wednesday)

1. Samir Guliyev, Seymur Mirzabayov. Synthesis of Zonal Controls for Lumped Systems with Memory under Discrete Observations (Azerbaijan).
2. Chingiz Khalilov, Elshan Mustafayev, Ilgar Mahmudov and Rustam Azimov. Enhancing the Reliability of Mass Examination Evaluation through Integration of OMR and Handwritten Character Recognition (Azerbaijan).
3. Chinar Aliyev, Agassi Melikov. Structured Conditional Histograms for Multi-Attribute Range Selectivity Estimation (Azerbaijan).
4. Kira Dmitrieva, Majid Abbasov. Application of the RRT algorithm to solve control theory problems (Russia).
5. Sabina Maharramova. Application of information technologies in risk modeling of water management facilities in the Kura-Araz plain (Azerbaijan).
6. Nurtakin Guliyeva Shukurova. Industrial Control Systems Protocols and Topologies (Azerbaijan).

16:20 – 16:40

Coffee Break

16:40 - 18:00

## Section “ICT in Automation and Control Systems”

Hall 1

*Moderator – Prof. Yegana Ashrafova*

1. Vugar Hashimov, Kamil Aida-zade. An Approach to Feedback Control of Membrane Vibration Stabilization (Azerbaijan).
2. Majid Abbasov, Anna Gorbunova. Grid exact penalty method for defining cost-optimal trajectory (Russia).

**April 22 (Wednesday)**

3. Kamil Aida-zade, Yegana Ashrafova, Soltan Aliyev. Control of Transient Processes in the Transportation of Hydrocarbon Raw Materials in Complex Pipeline Networks (Azerbaijan).
4. Gulchin Abdullayeva, Sayyara Hidayatzade. Monitoring and Assessment of Drinking Water Environmental Safety in the Jeyranbatan Reservoir using an Intelligent Information System (Azerbaijan).
5. Mehriban Mammadova, Heydar Rzayev, Arzu Akhundov and Natavan Khasayeva. Intelligent Information-Measuring System for Scanning Liquid Flows (Azerbaijan).
6. Arzu Akhundov, Mazahir Isayev, Heydar Rzayev. Principles of Developing an Intelligent Monitoring System for Main Pipelines (Azerbaijan).

**12:30 – 14:00**

**Hall 2**

## **Section “ICT in Industry and Construction”**

*Moderator – Prof. Azer Kasimzade*

1. Azer Kasimzade, Varol Koç, Hasan Yılmaz, Emin Nematli and Furkan Gunday. Integration of Nonlinear Structural Analysis into Decision Support Systems for Smart Building Applications (Azerbaijan, Türkiye).
2. Sahib Farzaliyev, Namig Abdullayev, Gulbade Abbasova and Shaig Guluzada. Genetic Algorithm-Based Optimization of High-Rise Reinforced Concrete Construction: A Methodology for Integration with National Structural Norms (Azerbaijan).
3. Enrico Zacchei, Zhiyuan Wang. Clustering-based post-processing of experimental data for double (insulating) glass units (China, Spain).

## April 22 (Wednesday)

4. Enrico Zacchei, Md. Munir Hayet Khan. Advanced modelling of chloride penetration in concrete considering time- and space-dependent diffusivity (Malaysia, Spain).
5. Kamran Samet, Nooshin Nemati. AI-Based Analysis of the mechanical performance of the fiber-reinforced composite materials (Türkiye).
6. Elbay Aliyev, Nizami Naghiyev, Sabina Aliyeva. Digital Transformation of Urban and Rural Settlement Systems in Azerbaijan (Azerbaijan).

14:00 – 15:00

Lunch Break

15:00 – 16:20

Hall 2

## Section “ICT in Industry and Construction”

*Moderator – Prof. Perviz Ahmedzade*

1. Azer Kasimzade, Varol Koç, Hasan Yılmaz, Emin Nematli and Furkan Gunday. A New Approach in Structural Control: An Industrial Application for the Tallest Building in the Caucasus (Azerbaijan, Türkiye).
2. Geylani Panahov, Eldar Abbasov, Afat Yuzbashiyeva and Vusale Balakci. Modeling deep-penetration conformance control in high-permeability reservoir zones to stabilize the hydrocarbon displacement front (Azerbaijan).
3. Perviz Ahmedzade, Ezgi Eren, Burak Yiğit Katanalp, Çiğdem Canbay Türkyılmaz, Emrah Türkyılmaz, Dilnoza Kamalova. Estimating International Roughness Index with ANFIS Using Pavement Characteristics and Traffic Components (Türkiye, Uzbekistan).
4. Fatih Eren Akgümüş, Hatice Gizem Şahin, Ali Mardani. The Effect of Waste Steel Fiber Content and Length on Water

Absorption Capacity in Blast Furnace Slag-Based 3D Printable Concrete (Türkiye).

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5. Jamila Imamaliyeva. IoT-based Principles for Damaged Building Analysis: Real-Time Monitoring and Risk Assessment (Azerbaijan).
6. Maksat Kalimoldayev, Mukaddas Arshidinova. Integration of Machine Learning Models with Big Data for Energy Consumption Forecasting and Management (Kazakhstan).
7. Elshad Yusifov, Aytakin Afandiyeva, Gulnar Gurbanova. Analytical Analysis of Big Data in the Innovative Development of Industry in Azerbaijan (Azerbaijan).

**16:20 – 16:40**

**Coffee Break**

**16:40 - 18:00**

**Hall 2**

## **Section “ICT in Industry and Construction”**

*Moderator – Prof. Maksat Kalimoldayev*

1. Ashraf Balametov, Tarana Isayeva, Tofiq Yaqublu. Application of FACTS devices to increase power system voltage stability (Azerbaijan).
2. Ramiz Iskenderov, Şevket Ateş, Nijat Mastanzade, Tural Rustamli, Nariman Abdinli. Application of Computational Programs for Determining the Dynamic Parameters of a Cable-Stayed Bridge with Seismic Isolators (Azerbaijan, Türkiye).
3. Gulchohra Mammadova, Samira Akbarova. Model-Oriented Predictive Microclimate Control of Multifunctional Skyscrapers with Complicated Architectural Shape (Azerbaijan).
4. Huseyngulu Guliyev, Nikita Tomin, Najaf Orujov, Nijat Huseynov, Arif Guluzade. Methodological foundations for

**April 22 (Wednesday)**

improving the accuracy of short-term forecasting of wind power plant output based on machine learning methods (Azerbaijan, Russia).

5. Husamettin Serbetci, Isa Navruz. Effects of Fiber Type and Core Diameter on CNN-Based Refractive Index Detection (Türkiye).
6. Konul Gafarbayli, Bayram Aslanov. Smart Buildings, Smart Villages, and Smart Cities: Applications of Digital Technologies in Architecture (Azerbaijan).

**12:30 – 14:00**

**Hall 3**

## **Section “ICT and Intelligent Systems in Sociology and Economics”**

*Moderator – Prof. Sabah Mohammed*

1. Aytaj Akparli, Nazrin Hajiyeva, Elshan Gurbanov. The Dual-Readiness Framework: Integrating Technical Agile Maturity and Interpersonal Collaboration Readiness for IT Project Success in Azerbaijan (Azerbaijan).
2. Adnan Kutay Yüksel, Feyza Toktaş, Mehmet Serdar Güzel. Mapping the Safety Boundaries of Medical AI: A Mechanistic Failure Analysis of Pneumonia Detection Ensembles under Severe Domain Shift (Türkiye).
3. Mohammad Rizwan, Ayesha Anees Zaveri, Dr. Muhammad Ashraf. AI-Driven Manufacturing Supply Chains: An Intelligent Framework for Waste Reduction and Operational Efficiency (Malaysia, United Kingdom, Pakistan).
4. İrem Karakaya, Talya Temizceri. From Prediction to Explanation: SHAP-Based Delivery Delay Analytics for E-Commerce Last-Mile Logistics (Türkiye).

**April 22 (Wednesday)**

5. Oleg Dranko, Anna Belova. Data Collection Algorithm for Price Optimization of Cash Flow (Russia).
6. Nuraiym Kadyralieva, Malika Baizakova, Al Khan. Detection of Autism Spectrum Disorder in Children Aged 3–8 Using Machine Learning and Natural Language Processing: A Multi-Resolution Linguistic Framework with Pragmatic Enhancement (Kyrgyzstan).
7. Shahla Gahramanova, Kamal Ibrahimov. From Caspian Shores To Mountain Peaks: ICT-Powered Tourism Resilience In Azerbaijan (Azerbaijan).

**14:00 – 15:00**

**Lunch Break**

**15:00 – 16:20**

**Hall 3**

## **Section “ICT and Intelligent Systems in Sociology and Economics”**

*Moderator – Prof. Aygun Aliyeva*

1. Jinan Fiaidhi, Sabah Mohammed, Supprethaa Shankar, Tharun Sekar, Kushal Kushal. Investigation into Generating Medical Narratives: Can US Medical Licensing Exams (USMLE) be Reliably Generated and Verified? (Canada).
2. Isa Muradov, Natig Mahamaliyev. Digital sovereignty in tourism marketing: Data governance and cybersecurity challenges in emerging markets (Azerbaijan).
3. Rafail Rzayev, Elman Ibishov, Aliagha Gasimov, Arzu Safarova. Artificial Intelligence and Higher Education Quality: Survey Evidence from UNEC (Azerbaijan).
4. Tran Luu, Luan Nguyen. Enhancing Learning Effectiveness and Satisfaction through Game-Based Learning in Higher Education (Viet Nam).

**April 22 (Wednesday)**

5. Tran Huynh, Luan Nguyen. AI-Based Smart City Applications: Student Experiences and Usage Challenges (Viet Nam).
6. Zarina Bashirova. Creation of AI-based model to assess children's intellectual potential (Azerbaijan).

**16:20 – 16:40**

**Coffee Break**

**16:40 - 18:00**

**Hall 3**

## **Section “ICT and Intelligent Systems in Sociology and Economics”**

*Moderator – Prof. Urfat Nuriyev*

1. Svetlana Allahverdiyeva, Vafa Jafarova. Noise in big cities and methods of combating it (Azerbaijan).
2. Eslem Akman, Nevin Köremezli Keskin, Merve Başdemirci, Onur Başdemirci, Hakan Kutucu. MAMNET-TR: A Large-Scale Annotated Mammography Dataset for the Turkish Population (Türkiye).
3. Anindhita Febriandini, Haryasena Panduwiyasa, Muhardi Saputra. Integrating ECM and WebQual Frameworks to Evaluate Fitness Tracker Continuance Intention among Generation Z Users (Indonesia).
4. Shavkat Fazilov, Shukhrat Mamadjanov. System analysis of acne diagnostics using artificial intelligence (Uzbekistan).
5. Irina Matveeva. Machine Learning Methods for Identifying Chronic Heart Failure Using Raman Spectroscopy (Russia).
6. Nooshin Nemati, Emrah Hançer, Akın Atakan Gören, Refik Samet. A Comparative Study of YOLO-based Architectures for Mitosis Detection in Histopathology Images (Türkiye).
7. Khuraman Sayın, Urfat Nuriyev, Arif Gürsoy, Yasin Kaymaz. A Controlled Evaluation of Meta-Heuristic Hyperparameter

**April 22 (Wednesday)**

Optimization in 3D CNN-MLP Hybrid Models for Brain Cancer Survival Prediction (Azerbaijan, Türkiye).

**12:30 – 14:00**

## **Section “ICT in Pattern Recognition”**

**Hall 4**

*Moderator – Prof. Vagif Qasimov*

1. Abbas Aliyev, Samir Rustamov. An Ensemble Approach to Deepfake Video Detection Using Pre-trained CNNs and Statistical Feature Aggregation (Azerbaijan).
2. Özge Nur Özaras, Asuman Günay Yılmaz, Vasif Nabiyev. Comprehensive Benchmarking and Hybrid Modeling of Deep Neural Networks for Tomato Leaf Disease Detection (Türkiye).
3. Omkar Prabhu, Ranjith G Rao, U S Advait Sharma, Ayush Sinha, Aryaman Kukreja, Ahamed Shafeeq B M. Interpretable AI for Urban Air Quality: A Machine Learning Framework for Accurate and Explainable Carbon Monoxide Forecasting (India).
4. Dina Ahmed, Gözde Ulutagay. Robust Potential Function Clustering via MDPDE-Based Weighting (Türkiye).
5. Buse Sariçayır, Caner Özcan, Yasin Ortakçi. A Comparative Study of Word Embedding Techniques for Turkish Sentiment Analysis (Türkiye).
6. Javanshir Zeynalov, Yigitcan Cakmak, Ishak Pacal, Maftun Aliyev, Leyla Ibrahimova, Hasan Nacafov. Automated Tomato Leaf Disease Classification using Deep Learning: a Comparative Performance and Efficiency Analysis of CNN and Vision Transformer Architectures (Azerbaijan, Türkiye).

**April 22 (Wednesday)**

**14:00 – 15:00**

**Lunch Break**

**15:00 – 16:20**

**Hall 4**

## **Section “ICT in Pattern Recognition”**

*Moderator – Prof. Samir Rustamov*

1. Rustam Azimov, Ioannis Faraslis. Computer Vision System for Analysis of Vegetative States of Plants using Multispectral Images from UAVs (Azerbaijan, Greece).
2. Onur Mert Çeldir, Efendi Nasibov. Comparative Analysis of Evolving Fuzzy Systems for Anomaly Detection in Streaming IoT Data (Türkiye).
3. Maha Albayati, Oğuz Findik. Ensemble Strategies for Turkish Legal Extractive Summarization Using Semantic Voting and ROUGE-Weighted Averaging (Türkiye).
4. Anvarkhon Majidov. A Fuzzy Neural Network Approach for Intelligent Environmental Monitoring and Anomaly Detection in IoT Networks (Uzbekistan).
5. Süleyman Nurullah Adahi Şahin, Abdulkadir Özden, Hakan Kocaman, Abdurrahman Korkmaz, Cem Özkurt. Mapping Mobility Justice: A Deep Learning and GIS-Based Framework for Micro-Scale Sustainable Mobility Policy Assessment (Türkiye).
6. Atakishi Goyushov, Ulviyya Goyushova, Nubiyya Arif Qızı and Emin Babayev. Model-Based Sequential Restoration of Motion and Spatially Varying Defocus Blur in Digital Images (Azerbaijan).

**April 22 (Wednesday)**

**16:20 – 16:40**

**Coffee Break**

**16:40 - 18:00**

**Hall 4**

## **Section “ICT in Pattern Recognition”**

*Moderator – Prof. Rustam Azimov*

1. Aydin Gasimov. Parameter-Efficient Fine-Tuning of Compact Large Language Models for Multi-Domain Sentiment Analysis (Azerbaijan).
2. Gennady Algashev, Ilya Lezin. Hybrid Pose Estimation Technology for Multi-Object Dynamic Scenes in Real-Time Based on Computer Vision Methods and Neural Keypoint Detection (Russia).
3. Yusuf Evren Aykaç, Merve Özkan, Refik Samet. Lexicon-Augmented Explainable Aspect-based Sentiment Analysis for Azerbaijani Finance and Business Text (Türkiye).
4. Kübra Kovayçin, Ece İrem Şişer, Derda Sina Günay, Yusuf Evren Aykaç, Refik Samet. A Case Study of Examining Court Decisions with LLMs Section-Aware Retrieval for Turkish Case Law (Türkiye).
5. Berna Özbaşaran, Gözde Ulutagay. Revisiting the Kwon index for fuzzy cluster validation: a hybrid Mahalanobis-Euclidean approach (Türkiye).
6. Sadig Malikov, Javad Manafov. Mobile positioning and navigation correction system based on visual recognition of urban address signs (Azerbaijan).
7. Sadig Malikov, Anar Rahimov. Reconstruction of Micro-Scale Aerospace Terrains using LiDAR Point Cloud Interpolation (Azerbaijan).

**April 23 (Thursday)**

**10:00 – 11:20**

**Plenary Session**

*Moderator – Prof. Elkhan Sabziev*

1. Perviz Ahmedzade. Data-Driven Fatigue Modeling in Asphalt Pavements: from Mechanistic Understanding to Decision Support (Samarkand State Architectural and Civil Engineering University, Uzbekistan).
2. Azer Kasimzade. Latest Achievements on Structural Control: An Industrial Application for the Tallest Building of the Caucasus (Azerbaijan University of Architecture and Construction, Azerbaijan).

**11:20 – 11:40**

**Coffee Break**

**11:40 – 13:00**

**Hall 1**

## **Section “ICT in Decision-Making”**

*Moderator – Prof. Anar Rahimov*

1. Samir Guliyev, Zulhija Guliyeva. Adaptation of Static Models’ Parameters of Objects with Feedback (Azerbaijan, United States).
2. Anastasiia Storozhenko, Petro Stetsyuk. Linear programming solvers and r-algorithm for sparse signal reconstruction (Ukraine).
3. Nermin Kartli. A Dynamic Programming Approach for the Fuzzy Minimum Cost Maximum Flow Problem in the Multi-Stage Networks (Türkiye).
4. Okkes Tolga Altinoz. Redesigning the Particle Swarm Optimization Algorithm as a Reinforcement Learning Methodology (Türkiye).

**April 23 (Thursday)**

5. Holida Primova, Maxbuba Vaydullayeva, Shavkat Urokov. A Support System and Multi-Criteria Decision-Making based on an Integrated Approach to Medicine 4.0. (Uzbekistan).
6. Ismayil Ismayilov. New Approach for Handling Uncertainty in Rule-based Expert Systems (Azerbaijan).

**13:00 – 14:00**

**Lunch Break**

**14:00 – 15:20**

**Hall 1**

## **Section “ICT in Decision-Making”**

*Moderator – Prof. Adalat Pashayev*

1. Ali Abbasov, Ramil Akhundov, Tahir Alizada, Ulviyya Mammadova, Adalat Pashayev, Elkhan Sabziev. Intelligent System for Detecting Acoustic Signatures of Faults in a Noisy Environment Based on Time–Frequency Analysis and CNN (Azerbaijan).
2. Daniil Miroshnichenko, Majid Abbasov. Modeling Convergence Rate Estimates of the Heavy Ball Algorithm via a Random Forest with Self-Attention (Russia).
3. Samia Akter Erin, Firuja Tasneem, Mim Mony, Mst. Umma Nourin Sawon, Mohammad Nyme Uddin. CO2 Concentration Prediction in a Multi-Functional Semi-Open University Auditorium Using Regression-Based Machine Learning Models (Bangladesh).
4. Süheyla Uygur, Efendi Nasibov. A Landmark Study of Fuzzy Inference Systems using A Hybrid Method for Prediction (Türkiye).
5. Mikhail Lavrukhin, Majid Abbasov. Genetic Path Optimization in 2D with a Forbidden Region (Russia).

**April 23 (Thursday)**

6. Sergei Dotsenko, Vladimir Semenov. On centrality ordering in logistics networking (Ukraine).

**15:20 – 15:40**

**Coffee Break**

**15:40 - 17:00**

**Hall 1**

## **Section “ICT in Decision-Making”**

*Moderator – Prof. Reshad Ismibayli*

1. Ilaha Latifova, Nigar Ismaylova, Cecilia Zanni-Merk. Comparative Forecasting of CO<sub>2</sub> Emissions Using ARIMA, Prophet, and LSTM Models (Azerbaijan, France).
2. Viktor Stovba, Oleksandr Zhmud. An Ellipsoid Method for Box-Constrained Lp-Loss Regression with L1 Regularization (Ukraine).
3. Vladimir Semenov, Bohdan Stupa. A Variance Reduction Stochastic Extragradient Method with Randomized Feasibility Updates for Variational Inequality Problems (Ukraine).
4. Abdulvahit Karail, Yasin Ortakçı. Impact of Optimizer: Comparative Analysis of Loss Functions in Different Models (Türkiye).
5. Reshad Ismibayli, Sona Rzayeva, Azer Bagirov. Analysis of the Application of Genetic Algorithms to the Educational Timetabling Problem (Azerbaijan).
6. Reshad Ismibayli, Sona Rzayeva. Genetic Algorithm–Based Timetabling Model for Universities Using the Bologna (Credit-Modular) Education System (Azerbaijan).

**April 23 (Thursday)**

**11:40 – 13:00**

**Hall 2**

## **Section “ICT in Modeling and Simulation”**

*Moderator – Prof. Hakan Kutucu*

1. Anar Rahimov. An approach to numerical solution to inverse source problems for a parabolic equation (Azerbaijan).
2. Esmanur Alican, İsmail Rakıp Karaş, Caner Ozcan. A Review Of Graph-Enhanced Augmented and Mixed Reality (Türkiye).
3. Afrin Akter Dolna, Ananna Sardar, Nowshin Nowyer Oyshi and Mohammad Nyme Uddin. Machine Learning–Based Prediction of Lighting Levels in University Classrooms (Bangladesh).
4. Tamara Bardadym, Aleksandr Lefterov, Oleksandr Fedosieiev. Problem of Knowledge Verification in the Era of Generative AI Development (Germany, Ukraine).
5. Melih Eşiyok, Okan Uluturk, Berke Bekar, Israfil Isakhliand, Efendi Nasibov. Detection of the Braess Paradox in Signalized Road Networks via Traffic Flow Simulation (Türkiye).

**13:00 – 14:00**

**Lunch Break**

**14:00 – 15:20**

**Hall 2**

## **Section “ICT in Modeling and Simulation”**

*Moderator – Prof. Natalia Markovich*

1. Ibromhimali Normatov, Ruzmat Dadazhanov, Kamoliddin Jabbarov, Gulnar Gurbanova. Algorithm for Constructing a

Non-Degenerated Quadratic Stochastic Operator by Binomial Distributions (Azerbaijan, Uzbekistan).

**April 23 (Thursday)**

2. Zeynel Baran Yildirim. SSM-Based Assessment of Pedestrian and Vehicle Safety at Unsignalized Urban Crossings (Türkiye).
3. Dilara Sabancıoğlu Duman, Şahin Emrah. A Genetic Algorithm Optimized Hybrid Recommender Model for Implicit User Feedback (Türkiye).
4. Aydoğan Soylu, Chingiz Hajiyeu. Accuracy Analysis of Distance Measurement Based Position Determination Methods (Türkiye).
5. Natalia Markovich. Information Spreading in Random Graphs Evolving by a Preferential Attachment Model with Poisson Edge Growth (Russia).
6. Elshan Hashimov, Aziz Talibov, Islam Islamov, Bayram Ibrahimov, Ramil Akhundov, Kostiantyn Dergachov. A Finite Capacity Queuing Model for Information Flow Processing in a Logistics Support System (Azerbaijan, Ukraine).

**15:20 – 15:40**

**Coffee Break**

**15:40 - 17:00**

**Hall 2**

## **Section “ICT in Modeling and Simulation”**

*Moderator – Prof. Vugar Hashimov*

1. Rena Huseynova, Amide Aliyeva, Sevda Akhmedova, Farid Samedov, Matanat Huseynova. Investigation of Extreme Visibility Properties in Nature During Daily Visual Observations (Azerbaijan).
2. Simon Serovajsky. Mathematical Modeling: Two Views of One Bridge (Kazakhstan).

**April 23 (Thursday)**

3. Vladimir Semenov, Nikita Skybytskyi. Weakly-Connected Regular Network Topologies (Ukraine).
4. Denis Kutuzov, Alexey Osovsky, Alina Iakupova, Alexey Loginov, Rodion Sinitsyn. A Fuzzy Logic Approach to Congestion Prediction in NoC Video Codecs (Russia).
5. Makhamadaziz Rasulmukhamedov, Nomaz Mirzaev, Gulmira Mirzaeva, Nuraddin Gafforov. Extraction of Features Characterizing Keystroke Dynamics in the User Identification Problem (Uzbekistan).
6. Khanlar Gamzaev, Sevinc Kerimova. Computer simulation of the elastic regime of the development of a single-well reservoir with an unknown initial state (Azerbaijan).

**11:40 – 13:00**

**Hall 3**

**Section “Cybersecurity of  
Information and Communication  
Systems”**

*Moderator – Prof. Sedat Akleylek*

1. Vagif Gasimov, Nargiz Mammadzada. Data Shuffling Algorithm For Preserving Privacy and Utility Of Analysis (Azerbaijan).
2. Gokhan Aydin, Ibrahim Ugur Yilmaz, Burak Aydin, Hakan Aydin, Sedat Gormus. Trust-Aware Blackhole Detection and Fast Topology Recovery in RPL-based 6TiSCH Networks (Türkiye).
3. Ahmet Faruk Dursun, Kübra Seyhan, Sedat Akleylek, Vasif Nabiyev. Helbench: A Comparative Benchmarking Framework for Fully Homomorphic Encryption Libraries (Türkiye).

**April 23 (Thursday)**

4. Manar Abdulqawi Ahmed Hasan, Sedat Akleylek. Benchmarking NIST Round 2 Multivariate Signature Schemes: UOV, MAYO, and QR-UOV (Estonia, Türkiye).
5. Yahya Zakrya Khan, Hakan Kutucu, Isa Avcı. A Study of Multi-Model Comparison for an Explainable IoT Intrusion Detection System Using Particle Swarm Optimization-Based Feature Selection (Türkiye).
6. Agha Aghayev, Nour-Eddine Rahmani. Cryptanalysis of a Post-Quantum Signature Scheme Based on Number-Theoretic Assumptions (Azerbaijan, Morocco).
7. Khadija Hidayatova, Bora Bugra Sezer, Urfat Nuriyev. Blockchain-Enabled Post-Quantum Session Establishment for Constrained IoT Devices (Azerbaijan, Türkiye).

**13:00 – 14:00**

**Lunch Break**

**14:00 – 15:20**

**Hall 3**

## **Section “Technical Means and Tools of Information and Communication Systems”**

*Moderator – Prof. Elshan Mustafayev*

1. Naila Musaeva, Telman Aliev. Technologies for Estimating the Remaining Useful Life of Technical Objects based on Noise Characteristics of Noisy Signal (Azerbaijan).
2. Ihsan Altun, Kerem Küçük, Halil Aydoğuş. Evaluating the Impact of Processor Isolation on Deterministic Behavior of Virtual PLC Solutions for Industrial Edge Platforms (Türkiye).
3. Duc Long Hoang. Synthesis of Terminal Synergetic Controller based on Nonlinear State Observer for 2-DOF Helicopter System (Viet Nam).
4. Duc Long Hoang, Dudarenko Natalia Alexandrovna. Synthesis of Composite Integral Fixed-Time Sliding Mode

**April 23 (Thursday)**

Control with Hölder-Adaptive Observer for Nonlinear Robotic Manipulators (Russia, Viet Nam).

5. Benu Melis Orhan, İrem Kayaarslan. A Search and Rescue Robot for Under Rubble Victim Detection Using Thermal and Sensor Based Systems (Türkiye).
6. Yaşar Nuri Sevgen. An Energy-Based Adaptive Modulation Framework for Bandwidth-Efficient Information Transmission (Türkiye).
7. Nazli Muradova, İlhami Suleymanov. An Intelligent Dust Detection and Protection System (DDPS) for Autonomous Management of Photovoltaic Performance (Azerbaijan).

**15:20 – 15:40**

**Coffee Break**

**15:40 - 17:00**

**Hall 3**

## **Section “Technical Means and Tools of Information and Communication Systems”**

*Moderator – Prof. Bayram Ibrahimov*

1. Asif Rzayev, Maryam Mammadli. Integrated Microprocessor System for Real-Time Measurement and Control of Flow Rate in Open Water Channels (Azerbaijan).
2. Chingiz Hajiyev. Difference Kalman Filter Robust to Systematic Measurement Errors (Türkiye).
3. Khangeldi Tynybek Uulu, Isa Navruz. Design and Simulation of Optical Directional Couplers with Adjustable Coupling Ratio (Türkiye).

**April 23 (Thursday)**

4. Vladimir Roganov. Modeling a visually observable 3D-model of the Earth's surface in different electromagnetic radiation spectra (Russia).
5. Ilya Galaktionov, Vladimir Toporovsky, Oleg Kolesnikov. Semi-Automatic Laser Beam Profile Shaping System with The Phase-Only Spatial Light Modulator (Russia).
6. Rena Asadova. Intelligent Method for Measuring the Delivery of an Electrocentrifugal Deep Well Pump in Oil Wells (Azerbaijan).

**11:40 – 13:00**

## **Section “ICT in Pattern Recognition”**

**Hall 4**

*Moderator – Prof. Gulchin Abdullayeva*

1. Artughrul Gayibov, Vagif Gasimov. Agricultural Land Mapping in the Karabakh Region of Azerbaijan Using Dynamic World and Machine Learning (Azerbaijan).
2. Qurat-Ul-Ain Mastoi, Abdullah Lakhan, Zain Gul, Syed Yaseen Shah, Syed Aziz Shah. Improved Convolutional Neural Network-Enabled GPS and EGNOS Framework for Location Tracking for Industrial 5.0 Applications (Pakistan, United Kingdom, Portugal).
3. Okkes Tolga Altinoz. Reinforcement Learning for Linear Quadratic Regulation to Control Discrete-time Balancing Experimental Set (Türkiye).
4. Oktay Kara, Hakan Kutucu. Automated PCB Component Verification via Cad-Aware Multi-Task Deep Learning (Türkiye).
5. Nomaz Mirzaev, Johongir Urinboev, Sayyora Ibragimova, Gulmira Mirzaeva, Azizbek Tillavoldiyev. The Problem of Forming a Feature Space for Speaker Recognition (Uzbekistan).

**April 23 (Thursday)**

6. Aydin Kazim-Zada, Gulchin Abdullayeva, Hayat Guseynova. On Some Informative Features of the Rock Artificial Artificial of Azerbaijan and Central Asia (Azerbaijan).

**13:00 – 14:00**

**Lunch Break**

**14:00 – 15:20**

**Hall 4**

## **Section “ICT and Intelligent Systems in Sociology and Economics”**

*Moderator – Prof. Yadulla Hasanli*

1. Yadulla Hasanli, Ibrahim Mohsumov. Green Input-Output model in Azerbaijan and Its Analysis (Azerbaijan).
2. Oleg Dranko, Kirill Trushin. A Model of Factors Affecting Industry Value Added Growth (Russia).
3. Rza Bashirov. A Hybrid Petri Net Framework for Predicting Therapeutic Targets for  $\beta$ -Globin Disorders (Türkiye).
4. Furkan Atban, Muhammed Yusuf Küçükkara, Cüneyt Bayılmış. Quantum Transfer Learning with Pretrained CNN Features for Multi-Class Medical Image Classification (Türkiye).
5. Meiirzhan Kalen. Digital Technologies and Their Impact on the Optimization of Business Processes in the Company: Focus on RPA (Kazakhstan).
6. Elgiz Mahmudov. The Role of Information Technologies in STEAM Education (Azerbaijan).
7. Afat Mammadova. Digital Infrastructure and Regional Economic Development: Comprehensive Assessment of Digitalization in the Regions of Azerbaijan (Azerbaijan).

**15:20 – 15:40**

**Coffee Break**

**April 23 (Thursday)**

**17:00 – 18:00**

**Closing Ceremony (Hall 1)**

For all inquiries, please contact:  
Azerbaijan University of Architecture and Construction,  
Ayna Sultanova, 11, Baku, Azerbaijan  
· (+994 50) 212 04 04, (+994 12) 539 92 31  
itta2026conf@gmail.com  
<http://itta.cyber.az>



Site:

Mail:

Date: