

**AZERBAIJAN NATIONAL ACADEMY OF SCIENCES (ANAS)
MINISTRY OF COMMUNICATIONS AND INFORMATION TECHNOLOGIES OF
AZERBAIJAN REPUBLIC
MINISTRY OF EDUCATION OF AZERBAIJAN REPUBLIC
PROBLEM COUNCIL OF CYBERNETICS AND INFORMATION TECHNOLOGY
CYBERNETICS INSTITUTE OF ANAS
INSTITUTE OF INFORMATION TECHNOLOGY OF ANAS
NATIONAL ACADEMY OF AVIATION
BAKU STATE UNIVERSITY
AZERBAIJAN STATE OIL ACADEMY
AZERBAIJAN TECHNICAL UNIVERSITY
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QAFQAZ UNIVERSITY
RESEARCH INSTITUTE OF APPLIED MATHEMATICS OF BAKU STATE UNIVERSITY**



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«PROBLEMS OF CYBERNETICS AND
INFORMATICS»
(PCI'2012)**

PROGRAM

September 12-14, 2012

Baku, Azerbaijan

12 September (Wednesday)

09.30 – 10.50 - Registration
11.00 – 13.00 - Opening Ceremony. Plenary Session

15.00 – 18.00 - Evening Section Sessions

13 September (Thursday)

10.00 – 13.00 - Morning Section Sessions
14.00 – 18.00 - Evening Section Sessions

14 September (Friday)

10.00 – 13.00 - Morning Section Session
15.00 – 16.00 - Closing Ceremony

All questions you can address to
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Editor: Kamil Aida-zade

OPENING CEREMONY AND PLENARY SESSION

12 September (Wednesday), 11.00 - 13.00

Azerbaijan National Academy of Sciences (3 floor, 10, Istiglaliyyat str.)

WELCOME SPEECHES

- President of ANAS **Mahmud Karimov**
- Ministry of Communication and Information Technologies **Ali Abbasov**
- Academician Secretary of the Department of Physical Mathematical and Technical Sciences of ANAS **Akif Hajiyev**
- Regional Representative of IEEE **Mehmet Haseki**
- Editor-in-chief of Journal “Information Technology” **Nikolay Filimonov**
- The chair of Problem Council on Cybernetics, Information Technology **Ismayil Ibrahimov**

PLENARY SESSION

1. **Telman Aliev, Ali Abbasov, Gambar Guluyev, Fahrhad Pashayev, Ulkar Sattarova.** Technologies and Systems for Minimization of Damage from Destructive Earthquakes. (Azerbaijan National Academy of Sciences)
2. **Hana Skalska.** Transfer of Technologies to the Governmental Practice: Development, Usability and Challenges. (University of Hradec Kralove, Hradec Kralove, Czech Republic)
3. **Nozer Singpurwalla.** Resource Exploration and its Transportation Risks. (The George Washington University, USA)
4. **Anna Maria Gil Lafuente, Anna Klimova, Korkmaz Imanov.** Forgotten effects in the comparative economic analysis for Spain, Russia and Azerbaijan in conditions of globalization. (University of Barcelona, Spain)

Section #1

(Baku, B.Vahabzadeh str.9, **Institute of Information Technology of ANAS**,
II floor, Large Conference hall)

INFORMATION AND COMMUNICATION TECHNOLOGIES

Chairman of the Section – Prof. **Rasim Alguliyev**

12 September (Wednesday)

Evening Session (15.00 - 18.00)

Chairman – Prof. **Rasim Alguliyev**

Secretary – Dr. **Vugar Musayev**

- 1.1. *Giuli Giguashvili, Tamar Makasarashvili, Nino Orjonikidze*. Problems of Information Security in Georgia. (Gori Teaching University, Georgia)
- 1.2. *Tofiq Hasanov, Ozeki Motoyuki, Oka Natsuki*. Dynamic Decision Support Systems in a Multi-Agent Environment. (Kyoto Institute of Technology, Japan)
- 1.3. *Rasim Alguliyev, Yadigar Imamverdiyev, Elchin Aliyev*. Conceptual Architecture of National Information Space Security System of Azerbaijan. (ANAS Institute of Information Technology, Azerbaijan)
- 1.4. *Ahmet Can Diker, Elvin Nasibov*. Estimation of Traffic Congestion Level via FN-DBSCAN Algorithm by Using GPS Data. (Dept. of Computer Science, Dokuz Eylül University, Turkey)
- 1.5. *Lyudmila Sukhostat, Yadigar Imamverdiyev*. New Feature Vector Extraction Method for Speaker Recognition. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.6. *Gia Surguladze, Ekaterine Turkia, Nino Topuria, Tamar Lominadze, Megi Giutashvili*. Towards an Integration of Process-Modeling: from Business-Content to the Software Implementation. (Georgian Technical University, Georgia)
- 1.7. *Gulnara Nabibayova*. About one Approach to the Development of Fuzzy OLAP Cube in Decision Making Support System in the Sphere of Foreign Policy. (Institute of Information Technology of ANAS, Azerbaijan)

- 1.8. *Rasim Alguliyev, Ramiz Aliguliyev, Tahmasib Fataliyev, Rahila Hasanova.* Conceptual Challenges in Developing Azerbaijan Citation Index. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.9. *Alexander Abramnikov, Nina Petuhova, Mais Farkhadov.* System of Speech Access in the Azerbaijani Language to Objects of Electronic Map. (Institute of Control Sciences of RAS, Russia)
- 1.10. *Rena Gasimova.* About the Identification of Categorical Registration Data of Domain Names in the Data Warehouse. (Institute of Information Technology of ANAS, Azerbaijan)

13 September (Thursday)

Morning session (10.00 - 13.00)

Chairman – Prof. **Hana Skalska**

Secretary – Dr. **Yadigar Imamverdiyev**

- 1.11. *Hana Skalska.* Transfer of Technologies to the Governmental Practice: Development, Usability and Challenges. (University of Hradec Kralove, Czech Republic)
- 1.12. *Fadai Ganjaliyev.* New Method for Community Detection in Social Networks Extracted from the Web. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.13. *David Zautashvili, Nodar Chanturia.* Development of Mechanisms of Electronic Participation on the Local Self-Government Web-Sites. (Akaki Tsereteli State University, Georgia)
- 1.14. *Rashid Alakbarov, Mammad Hashimov.* About Scientific and Technological Problems of the reconstruction of AzScienceNet Network based on Cloud-Oriented Architecture. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.15. *Sergii Minukhin.* Efficient Method for Single Machine Total Tardiness Problem. (Kharkiv National University of Economics, Kharkiv, Ukraine)
- 1.16. *Irada Alekperova.* Some Approaches to the Development of Information Influence and Hidden Communications Detection Systems in Wiki-Environment. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.17. *Rahmi Çevik, Ata Onal.* General View on the Notion of Distant Education in Turkey. (Ege University, Turkey)

- 1.18. *Aziz Hanifi, Jafar Amiri, Tofig Kazimov.* Compare the Based on Demand Routing Protocols with Fuzzy Algorithm for Manet Networks. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.19. *Behzad Sami, Masoud Kouhi, Seyed Hasan Safavi.* Role of E-Government and E-Citizen in Society Management. (Faculty member of Information Technology, Science and Research Payam Noor University, Ardebil Branch, Iran)
- 1.20. *Hamid Zargari Asl, Behzad Sami, Mahsa Mohammadi, Lale Shahabi.* Study on H.I.S. Systems of Developing Countries and Its Outlook on the Bases of HL7. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.21. *Alireza Hatamizadeh, Aloysat Aliyev.* Survey of ERP Systems Implementation. (Institute of Information Technology of ANAS, Azerbaijan)

Evening Session (14.30 - 18.00)

Chairman – Prof. **Seung-Woo Seo**

Secretary – Dr. **Ramiz Shikhaliyev**

- 1.22. *Seung-Woo Seo.* Security Issues in Future Internet. (Seoul National University, Korea)
- 1.23. *Arif Gürsoy, Urfat Nuriyev.* Genetic Algorithm for Multi Bandpass Problem and Library of Problems. (Ege University, Department of Mathematics, Turkey)
- 1.24. *Ramiz Shikhaliyev.* About Methods for Visualizing Network Monitoring. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.25. *Natela Archvadze, Merab Pkhovelishvili.* Reforming the Trees – C# and F# Comparison. (Department of Computer Sciences Faculty of Exact and Natural Sciences I. Javakhishvili Tbilisi State University, Georgia)
- 1.26. *Bikes Agayev.* Investigation of Affects of Some Parameters of VoIP Networks on the Quality of Transmitted Speech. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.27. *Rasim Alguliyev, Ramiz Aliguliyev, Tahmasib Fataliyev, Rahila Hasanova.* On Necessity of the Azerbaijan Citation Index (AzCI). (Institute of Information Technology of ANAS, Azerbaijan)

- 1.28. *Eldar Babaliyev*. Development of Credit Risk Management System for Non-Bank Credit Organizations. (Azerbaijan State Oil Academy, Azerbaijan)
- 1.29. *Aziz Hanifi, Jafar Amiri, Tofiq Kazimov*. Base Station Location for Energy Efficient in Wireless Sensor Network (Institute of Information Technology of ANAS, Azerbaijan)
- 1.30. *Rasim Alguliyev, Seyed Hossein Hosseini Nazhad Ghazani*. Study on QoS Frameworks for Mobile Ad-Hoc Networks. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.31. *Ramiz Shikhaliyev*. Methods for Monitoring and Managing Computer Networks QoS. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.32. *Mubariz Khalilov*. Software Reliability. (Baku State University, Azerbaijan)

14 September (Friday)

Morning session 10.00 - 13.00

Chairman – Prof. **Masuma Mammadova**

Secretary – Dr. **Zarifa Jabrailova**

- 1.33. *Magda Tsintsadze*. Presentation of Uncertain Information with Help of Canonically Conjugate Fuzzy. (Subsets. Iv.Javakhishvili Tbilisi State University, Georgia)
- 1.34. *Bayram Ibrahimov, Sevinc Ismaylova*. Research Efficiency of Integrated Communication Networks with User of Signaling System. (Azerbaijan Technical University, Azerbaijan)
- 1.35. *Ozhan Tingoy, Sabri Serkan Gulluoglu*. Effects of Culture on Distance Learning in Higher Education in the Light of Digital Divide and Multicultural: Curriculum and Design Strategies. (Marmara University, Turkey)
- 1.36. *Hamid Zargari Asl, Behzad Sami, Mostafa Dashti, Farzad Nourmohammadzade*. Three Way Handshaking Method: New Theoretical Way for Improving Distributed Computing. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.37. *Andrew Kapenkov*. Open Source Software Defined Radio. (FSBEI of HPE «KSTA named after V.A. Degtyarev», Kovrov, Russian Federation)
- 1.38. *Mehdi Soltani, Alovzat Aliyev*. Study the Establishment of Smart Schools. (Institute of Information Technology of ANAS, Azerbaijan)

- 1.39. *Tahmasib Fataliyev, Makrufa Hajirahimova, Marziya Ismayilova.* On Analytic-Information System of Scientific Problems Register. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.40. *Alireza Hatamizadeh, Alovzat Aliyev.* Importance of Selection & Evaluation Stages in ERP Systems Implementation. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.41. *Firudin Agayev, Gulara Mamedova.* Development of an Educational Standard of Higher Education for ICT Sphere. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.42. *Rasmiyya Amiraslanova.* Importance and Features of Unified Database Development in Assessing the Quality of Education. (Institute of Information Technology of ANAS, Azerbaijan)
- 1.43. *Aydin Hasanov, Sayyar Abdullayev.* Integrated Analysis Technology of Non-Stationary Time Series. (Research and Training Center of Information Technologies and Systems National Academy of Sciences and Ministry of Education, Ukraine)

Section #2

(Baku, B.Vahabzadeh str.9, **Institute of Cybernetics of ANAS**,
I floor, Small Conference hall)

INTELLECTUAL TECHNOLOGY AND SYSTEMS

Chairman of the Section – Prof. **Ogtay Nusratov**

12 September (Wednesday)

Evening Session (15.00 - 17.30)

Chairman – Prof. **Efendi Nasiboglu**

Secretary – Dr. **Gulchin Abdullayeva**

- 2.1. *Telman Aliev, Tofiq Babayev, Elkhan Sabziev, Adalat Pashayev, Tahir Alizada.* Monitoring of Condition of the Cardiovascular System by Means of Mobile Phones Using ECG Noise Variance. (Cybernetics Institute of ANAS, Azerbaijan)
- 2.2. *Telman Aliev, Gambar Guluyev, Asif Rzayev, Fahrad Pashayev, Rauf Gadimov, Iltizam Yusifov, Ismat Sattarov.* Noise Technology and System for Determining of Flow Rate of Oil Wells. (Institute of Cybernetics of ANAS, Azerbaijan)
- 2.3. *Gambar Guluyev, Asif Rzayev, Yaver Aliyev, Magomed Rizvanov.* Force Sensors of Sucker Rod Oil Pumps. (Cybernetics Institute of ANAS, Azerbaijan)
- 2.4. *Ogtay Nusratov, Gulchin Abdullayeva, Ismayil Ismayilov.* Integrated Expert System of Decision making for Estimating Collector Properties and Oil-and-Gas Saturation of Strata. (Cybernetics Institute of ANAS, Azerbaijan)
- 2.5. *Masuma Mamedova, Zarifa Guliyeva, Minara Manaflı.* Architecture and Functioning Principles of Diagnostic Test-Block of Expert Tutoring System. (Institute of Information Technologies ANAS, Azerbaijan)
- 2.6. *Kamil Aida-zade, Elshan Mustafaev, Jamaladdin Hasanov.* About one Approach to the Intelligent Reading System Based on Mobile Platform. (Cybernetics Institute of ANAS, Azerbaijan)

- 2.7. *Aleksey Brilevski*. System of Support Logistics and Transport Control for Routes in a Distribution Network. (Belarusian State Economic University, MUE “Minskhlbprom”, Belarus)
- 2.8. *Mazahir Isayev, Gulbahar Yusufova-Agabalayeva, Natiga Rzayeva*. Boundary Delimitation in the Elections. (Cybernetics Institute of ANAS, Azerbaijan)
- 2.9. *Israil Mammadov, Bayram Ibrahimov*. Researches of Methods of Noiseproof Reception of Optical Signals at use WDM-Technology. (Azerbaijan Technical University, Azerbaijan)

13 September (Thursday)

Morning session (9.30 - 13.00)

Chairman – Prof. **Efendi Nasiboglu**

Secretary – Dr. **Gulchin Abdullayeva**

- 2.10. *Efendi Nasiboglu, Umit Kuvvetli, Mefharet Ozkilkic, Ugur Eliyi*. Origin-Destination Matrix Generation Using Smart Card Data: A Case Study for Izmir. (Dept. of Computer Science, Dokuz Eylul University, Turkey)
- 2.11. *Tamar Makasarashvili, Tinatin Tatulashvili, Tea Khorguashvili*. The Formalization and Knowledge Gaining Problems in Intellectual Systems. (Gori Teaching University, Georgia)
- 2.12. *Mirzoyan Kamilov, Shavkat Fazilov, Nomaz Mirzaev, Sobirjon Radjabov*. Estimates Calculations Algorithms in Condition of Huge Dimensions of Features' Space. (Institute of mathematics and information technologies Academy of Sciences, Uzbekistan)
- 2.13. *Hudayberdiev Mirzaakbar, Judakova Gozel, Günter Landsmann*. A New Algorithm of Support Vector Machine by the Bezier Curve. (TUIT, Uzbekistan)
- 2.14. *Fidan Nuriyeva, Asli Guler, Deniz Tanır*. Mathematical Computer Games Based on Modular Arithmetic. (Ege University, Turkey)
- 2.15. *Naila Allakhverdiyeva*. Using Corrective Filters to Improve the Accuracy of Seismic Data. (Azerbaijan State Oil Academy, Azerbaijan)
- 2.16. *Zarbaq Amiraslanova*. Automation of Working Drawings and Calculation of Reinforcement Weight in Concrete Structures. (ANAS Cybernetics Institute, Azerbaijan)

- 2.17. *Gela Besiashvili, Manana Khachidze, David Chokhanelidze*. Application of Adaptive Genetic Algorithm in Mining Industry. (Department of computer sciences, Tbilisi state university, Georgia)
- 2.18. *Shafag Muttalibova, Namik Pashayev, Rauf Ragimov*. The Valuing Processes of Flood on the Coastal Regions of the Kur on the Basis of Data Remote Sensing. (The National Aerospace Agency, The Science Research Institute of Aerospace Informatics, Azerbaijan)

Evening Session (14.30 - 17.30)

Chairman – Prof. **Ramin Rzayev**

Secretary – Dr. **Samir Rustamov**

- 2.19. *Samir Rustamov*. On an Understanding System that Supports Human-Computer Dialogue. (Institute of Cybernetics of ANAS, Azerbaijan)
- 2.20. *Pavel Khrustalev*. Process Optimization of Pointing of the Onboard Weapon of a Robotics Complex with use of Intellectual Optical-electronic Station. (Kovrov State Technological Academy named after V.A. Degtyareva, Russia)
- 2.21. *Pavel Khrustalev*. Self-configured Optical-electronic Station. (Kovrov State Technological Academy named after V.A. Degtyareva, Russia)
- 2.22. *Denis Varabin, Dmitry Bagaev*. Autonomous system "Car Robot". (Kovrov State Academy of Technology, Russia)
- 2.23. *Nigar Ismayilova, Elviz Ismayilov*. Research of a Class of Smooth Membership Functions and its Application in Recognition Systems. (Institute of Information Technology of ANAS, Azerbaijan)
- 2.24. *Tofiq Kazimov, Shafagat Mahmudova*. Estimation of the Impact of Geometrical Characteristics on the Recognition to Identify a Human Face on the Basis of Photo Portraits. (Institute of Information Technology of ANAS, Azerbaijan)
- 2.25. *Yuriy Zaychenko, Aydin Gasanov*. The Investigations of Cascade Neo-Fuzzy Neural Networks in the Problem of Forecasting at the Stock Exchange. (Institute for Applied System Analysis KTUU "Kiev Polytechnic Institute", Ukraine)
- 2.26 *Evgeny Wasserman, Nikolay Kartashev*. Automated Processing of EEG Recorded during Dichotic Listening Session: Problems of Single Response Recognition. (Saint Petersburg Institute for Informatics and Automation of Russian Academy of Sciences, Russia)

- 2.27. *Shabnam Abiyeva*. On the Search System for Selection of Plants According to Environment Conditions. (Institute of Cybernetics, Azerbaijan)

14 September (Friday)

Morning session, 9.30 - 13.00

Chairman – Prof. **Ramin Rzayev**

Secretary – Dr. **Samir Rustamov**

- 2.28. *Firudin Mamedov, Tamella Ahmedova*. Provision of Throw-over Manipulator and Step Conveyer with Sensor Controls. (Sumgait State University, Azerbaijan)
- 2.29. *Yahar Ghasemi Habashi*. Application of Neural Networks to Diagnostics of Pumping-Rod Units. (Institute of Applied Mathematics, Baku State University, Azerbaijan)
- 2.30. *Samir Rustamov*. An Application of Neuro-Fuzzy Model for Text and Speech Understanding Systems. (Institute of Cybernetics of ANAS, Azerbaijan)
- 2.31. *Marina Lukashevich, Rauf Sadykhov*. Texture Analysis. Algorithm for Texture Features Computation. (BSUIR, Belarus)
- 2.32. *Igor Frolov, Rauf Sadykhov*. Pyramidal Algorithm for SVM-classification. (BSUIR, Belarus)
- 2.33. *Yegana Pashayeva*. Processing of Electrocardiogram File in Mobile Phones on Symbian Operating System. (Cybernetics Institute of ANAS, Azerbaijan)
- 2.34. *Rauf Nabiyeu*. Results Analysis of Experimental Studies of Correcting Filters. (Cybernetics Institute of ANAS, Azerbaijan)
- 2.35. *Evgenit Krasnov, Dmitry Bagaev*. Conceptual Analysis of Fire Fighting Robots' Control Systems. (Kovrov State Academy of Technology, Russia)
- 2.36. *Fikrat Feyziyev, Lidiya Ramazanova, Mehrdad Arablu Babavand Aslan*. The Description of Encoding and Decoding of Binary Cyclic Codes in a Class Sequential Machines. (Sumgait State University, Azerbaijan)

Section #3

(Baku, B.Vahabzadeh str.9, **Institute of Cybernetics of ANAS**,
III floor, Large Conference hall)

SEISMIC DEVICES, SYSTEMS AND TECHNOLOGY

Chairman of the Section – Prof. **Mammadkarim Guliyev**

12 September (Wednesday)

Evening Session (15.00 – 18.00)

Chairman – Prof. **Konstantin Kislov**

Secretary – **Ulkar Sattarova**

- 3.1. *Ioannis Baskoutas, George Papadopoulos, Panos Karvelis*. Qualitative Precursory Seismicity Pattern in Greece: Practical Tool for an Impending Strong Assessment. (Institute of Geodynamics, Greece)
- 3.2. *Konstantin Kislov, Fedor Vinberg, Aleksandr Kushnir, Valentin Gravirov*. Early Warning System and Man-Made Noise. (Institute of Earthquake Prediction Theory and Mathematical Geophysics, Russia)
- 3.3. *Alemdar Bayraktar, Barish Sevim, Ahmet Can Altunishuk, Temel Turker*. Seismic Assessment of Existing Engineering Structures Using Ambient Vibrations. (Karadeniz Technical University, Turkey)
- 3.4. *Lutfulla Hamidov*. Local Seismicity of Reservoir Areas Based on Digital Seismometric Observations. (Institute of Seismology of ASU, Uzbekistan)
- 3.5. *Ali Abbasov, Telman Aliev, Gambar Guluyev, Fahrhad Pashayev*. Technology and System of Robust Noise Monitoring of Anomalous Seismic Processes. (Azerbaijan National Academy of Sciences, Azerbaijan)
- 3.6. *Telman Aliev, Ali Abbasov, Gambar Guluyev, Fahrhad Pashayev, Adalat Pashayev, Elkhan Sabziev, Ulkar Sattarova*. Technology for Determining

- Time of Origin and Coordinates of Anomalous Seismic Processes. (Cybernetics Institute of ANAS, Azerbaijan)
- 3.7. *Orhan Polat, Elcin Gok, Ulubey Ceken, Mehmet Kuruoglu*. Seismic Studies from Small Aperture Accelerometric Network in Izmir Metropolitan City, Turkey. (Dokuz Eylul University, Turkey)
 - 3.8. *Vladimir Dovgan*. Seismometric Monitoring of Toktogul Hydroelectric Power Station. (Kyrgyz-Russian Slavyansk University, Kyrgyzstan)
 - 3.9. *Mehmet Kuruoğlu, Tuğba Eskişar*. Dynamic Properties of Soils in the Northern Coast of Izmir Bay Area. (Dokuz Eylül University, Turkey)
 - 3.10. *Gambar Guluyev, Fahrhad Pashayev, Majid Pakdel, Ulkar Sattarova*. Prediction of Signal Characteristics Using Autoregressive Moving Average Method. (Cybernetics Institute of ANAS, Azerbaijan)
 - 3.11. *Vasiliy Makarov, Tahir Alizada, Lyubov Ebert*. Integral Model of Monitoring the Oil-Trunk Pipelines in Earthquake-Prone Regions. (Technical Institute Branch of Yakut State University, Russia)

13 September (Thursday)

Morning Session (09.30 - 13.00)

Chairman – Prof. **Alemdar Bayraktar**

Secretary – **Narmin Rzayeva**

- 3.12. *Oleksandr Kendzera*. Seismicity, seismological network and seismic protection in Ukraine. (Institute of Geophysics of NAS of Ukraine, Ukraine)
- 3.13. *Gurban Yetirmishli, Sabina Kazimova, Rugiya Kerimova, Saida Ismaylova*. Experience and Prediction of Seismic Studies in Azerbaijan. (Republican Seismological Survey Center of National Academy of Sciences of Azerbaijan, Azerbaijan)
- 3.14. *Baylar Aslanov*. Effect of "Supermoon" on Earth Seismotectonics. (Research Institute "Oil and Gas" of SOCAR, Azerbaijan)
- 3.15. *Naila Musaeva, Gulchohra Mammadova, Elchin Aliyev, Ulkar Sattarova*. Methods, Technologies and Means of Control of Seismic Stability of Complexes of Construction Structures in Operation. (Azerbaijan Architecture and Construction University, Azerbaijan)

- 3.16. *Naila Musaeva, Elchin Aliyev, Ulkar Sattarova, Rauf Gadimov.* Technology and Algorithms for Monitoring of the Technical Condition of High-Rise Buildings, Construction and Strategic Objects in Seismically Active Regions by Means of Sets of Informative Attributes. (Azerbaijan Architecture and Construction University, Azerbaijan)
- 3.17. *Naila Musaeva, Elchin Aliyev, Ulkar Sattarova, Narmin Rzayeva.* Correlation Matrices in Problems of Identification of Seismic Stability and Technical Condition of High-Rise Buildings and Building Structures. (Azerbaijan Architecture and Construction University, Azerbaijan)
- 3.18. *Rauf Mayilov, Elmira Khanmammadova.* Registration System of Sea Seismic Geophysics Data with Correction Channels. (Azerbaijan State Oil Academy, Azerbaijan)
- 3.19. *Fakhraddin Kadirov, Gulam Babayev, Azer Gadirov.* Analysis of Horizontal to Vertical Spectra of Microseisms for Baku City. (Institute of Geology of ANAS, Azerbaijan)
- 3.20. *Azer Kasimzade, Sertac Tuhta.* The Eigensensitivity–Based Finite Element Model Updating for Structural Parameter Identification. (Ondokuz Mayıs University, Turkey)
- 3.21. *Telman Aliev, Tofiq Babayev, Tahir Alizada, Ulkar Sattarova.* Technologies of Robust Noise Monitoring of the Latent Period of Change in Seismic Stability of Offshore Stationary Platforms and Piers. (Cybernetics Institute of ANAS, Azerbaijan)

Section #4

(Baku, B.Vahabzadeh str.9, **Institute of Information Technology of ANAS**,
II floor, Small Conference hall)

MODELING AND IDENTIFICATION

Chairman of the Section – Prof. **Kamil Aida-zade**

12 September (Wednesday)

Evening session (15.00 - 17.30)

Chairman – Prof. **Abbas Rzayev**

Secretary – Dr. **Samir Guliyev**

- 4.1. *Ali Nagiev, Fazil Alekperli, Jabir Mamedov.* Concept of Fractals in Mathematical Modeling on Management of Adsorption Processes. (Sumgait State University, Azerbaijan)
- 4.2. *Ali Nagiev, Zakir Maharramov, Matlab Salmanov.* Simulation of Animals' Heat Balance. (Sumgait State University, Azerbaijan)
- 4.3. *Telman Aliev, Abbas Rzayev, Gambar Guluyev.* Rang Correlation of Spirmen that Uses for Determining Oil Well Interaction. (Institute of Cybernetics of ANAS, Azerbaijan)
- 4.4. *Telman Aliev, Abbas Rzayev, Gambar Guluyev, Iltizam Yusifov.* To the Problem of Mathematical Modeling of the Oil Deposit Processes. (Institute of Cybernetics of ANAS, Azerbaijan)
- 4.5. *Abbas Rzayev, Gambar Guluyev, Abdurrachmanova Asude.* Indirect Method Measuring Oil Well Debit. (Institute of Cybernetics of ANAS, Azerbaijan)
- 4.6. *Gambar Guluyev, Adalat Pashayev, Farkhad Pashayev, Asaf Rzayev, Elkhan Sabziev.* Building the Dynamometer Card of Sucker Rod Pump Using Power Consumption of the Eclectic Motor of Pumping Unit. (Institute of Cybernetics of ANAS, Azerbaijan)

- 4.7. *Khanlar Hamzayev, Ahmet Babaev, Sevil Huseynzade*. Method of Numeral Modeling of Elastic Water Drive Mode of Development of Layer. (Institute of Cybernetics of ANAS, Azerbaijan)
- 4.8. *Allahverdi Hasanov, Nabi Kurbanov, Nigar Mikhailova*. Investigation Of Free Vibrations Of Viscoelastic Bodies. (Cybernetics Institute of ANAS, Azerbaijan)
- 4.9. *Allahverdi Hasanov*. Application of Viscoelastic Model for Investigating Nanocomposites. (Cybernetics Institute of ANAS, Azerbaijan)
- 4.10. *Ali Kursat Erumit, Vasif Nabiyev, Ayca Cebi*. Modeling of Motion Problems Based on Graph Theory in Maths. (Karadeniz Technical University, Turkey)

13 September (Thursday)

Morning session (10.00 - 13.00)

Chairman – Prof. **Kamil Aida-zade**

Secretary – Dr. **Vagif Abdullayev**

- 4.11. *Igor Gurevich*. About Physical Informatics. (The Institute of Informatics Problems of the Russian Academy of Sciences, Hetnet Consulting Corp., Russia)
- 4.12. *Igor Gurevich*. Informatics Laws Restrict and Define Physical Laws. (The Institute of Informatics Problems of the Russian Academy of Sciences, Hetnet Consulting Corp., Russia)
- 4.13. *Agadadash Aliyev, Fakhraddin Yusubov, Rauf Babayev, Afaq Guliyeva*. Modeling and Optimization of Adsorption Processes. (Institute of Chemical Problems of ANAS, Azerbaijan)
- 4.14. *Yakup Haci*. On Identification of Nonlinear Binary Dynamic Systems. (Canakkale Onsekiz Mart University, Turkey)
- 4.15. *Besarion Shanshiashvili, Givi Bolkvadzame*. Identification and Modeling of the Nonlinear Dynamic Open Loop Systems. (Georgian Technical University, Georgia)
- 4.16. *Vladimirr Mikhailov*. Simulation of Animals' Heat Balance. (Saint Petersburg institute for informatics and automation RAS, Russia)

- 4.17. *Volkan Sözeri, Urfat Nuriyev*. Graph Representation of Locked Numbers and Sequences. (Department of Mathematics, Faculty of Science, Izmir)
- 4.18. *Michjael Dymkov, Siarhei Dymkou*. Repetitive and 2-D Systems Theory Approach for Modeling in Gas Networks. (Department of Mathematics, Belarus State Economic University, Belarus)
- 4.19. *Otar Labadze*. Inter-Inductive Primary Converters. (I. Javakhishvili Tbilisi state University, Georgia)
- 4.20. *Aliakbar Mohammadi*. Detection of Hopf Bifurcation Using Eigenvalue Identification. (Department of Electrical Engineering, Marvdasht Branch, Islamic Azad University, Iran.)
- 4.21. *Rahima Jalilova*. Investigation of the Process of Localization of Disturbances in Unlinear Equations. (Institute of Cybernetics of ANAS, Azerbaijan)

Evening session (14.30 - 17.30)

Chairman – Prof. **Allahverdi Hasanov**

Secretary – Dr. **Yegana Ashrafova**

- 4.22. *Yusif Rzayev, Etibar Ismayilov*. Hydrodynamic Model of De-emulsification Processes of Layer' Fluids Flow. (Science Technical center "SHARG", Azerbaijan)
- 4.23. *Goshgar Aliyev, Chingiz Ibrahimov, Eldar Mammadov*. Identification of Parameters of Mathematical Model Non-isothermal Processes of Adsorption Surface-active Substances in a Porous Medium Oil-Bearing Rock. (Institute of Chemical Problems named after M.F.Nagiyev ANAS, Azerbaijan)
- 4.24. *Khasay Feyzullayev, Mubariz Khalilov*. Identification of Heterogeneous Stratum Parameters in Gas-condensate Mixture Filtration. (Geology Institute of Azerbaijan National Academy of Sciences, Azerbaijan)
- 4.25. *Aminaga Sadigov*. Modeling of Appearance of Instability of Complex Systems.(Cybernetics Institute of ANAS, Azerbaijan)
- 4.26. *Kamil Aida-zade, Vagif Abdullayev*. On a Class of Inverse Problems for Loaded Equations with Nonlocal Conditions. (Azerbaijan State Oil Academy, Azerbaijan)
- 4.27. *Kamil Aida-zade, Anar Rahimov*. Numerical Method of Parametrical Identification for Nonlocal Parabolic Problems.(Cybernetics Institute of ANAS, Azerbaijan)

4.28. *Rahima Jalilova*. Modeling and Technology of Management with Processors of Separation Oil and Liquid on the Oil-trades. (Institute of Cybernetics of ANAS, Azerbaijan)

POSTER PAPERS

- *Irina Chkheidze, Lali Tokadze, Sophio Okromtchedlishvili*. Modeling of a Generalized Brownian Motion Based on Wavelet – Computer. (Georgian Technical University, Georgia)
- *Samira Hasanova*. About Information Model of Soil Classification. (Cybernetics Institute of ANAS, Azerbaijan)

Section #5

(Baku, Z.Khalilov str.23, New Training Building of Baku State University,
VII floor, room #709)

NUMERICAL METHODS AND COMPUTATIONAL TECHNOLOGY

Chairman of the Section – Prof. Galina Mehdiyeva

13 September (Thursday)

Morning session (10.30 - 13.00)

Chairman – Prof. **Aydin Aliyev**

Secretary – Dr. **Fariz Imranov**

- 5.1. Galina Mehdiyeva, Vagif Ibrahimov, Mehriban Imanova. On One Investigation of Numerical Solution of Integro-Differential Equations of Volterra Type. (Baku State University, Azerbaijan)
- 5.2. Galina Mehdiyeva, Vagif Ibrahimov, Mehriban Imanova. On an Application of Hybrid Method to the Solution of Volterra Nonlinear Integro-Differential Equation.(Baku State University, Azerbaijan)
- 5.3. Galina Mehdiyeva, Aydin Aliyev. Numerical Solution One Nonlocal Problem.(Baku State University, Azerbaijan)
- 5.4. Ali Nagiev, Fariz Imranov, Hasan Nagiev. On the Separability of the Parameter Space of Dynamical Systems in Terms of Types of Phase Portraits. (Sumqait State University, Azerbaijan)
- 5.5. Kamal Mammadov. Computational Aspects of the Method of Bilateral Narrowing of the Boundaries of the Optimum and the Variables in the Mixed-integer Knapsack Problem. (Ministry of Communications and Information Technologies, Azerbaijan)

Evening Session (14.30 - 17.30)

Chairman – Prof. **Vagif Ibrahimov**

Secretary – Dr. **Mehriban Imanova**

- 5.6. *Akaki Girgvliani*. Numerical Modeling of Annual Mean Hydrophysical Fields in the Caspian Sea. (Akaki Tsereteli State University, Georgia)
- 5.7. *Iman Askerbeyli, Ilyas Hashimoglu*. Numerical Study of Vortex Nucleation in Two-Band Superconductors. (Ankara University, Turkey)
- 5.8. *Mirzayan Kamilov, Mirzaakbar Hudayberdiev, Alisher Khamroev*. Methods of Computing Epsilon Thresholds in the Estimates' Calculation's Algorithms. (Centre for the development of software and hardware-program complexes, Uzbekistan)
- 5.9. *Arif Guliyev, Bunyad Kazimov*. Numerical Modeling of Development of Oil Deposit with System of Wells Taking into Account the Relaxation of Deformation of Rocks. (Geology Institute of Azerbaijan National Academy of Sciences, Azerbaijan)
- 5.10. *Memmedaga Memmedli, Munevvere Yildiz*. Comparison Study on Smoothing Parameter and Sample Size in Nonparametric Fuzzy Local Polynomial Regression Models. (Department of Statistics, Faculty of Science, Anadolu University, Turkey)

Section #6

(Baku, Z.Khalilov str.23, New Training Building of Baku State University,
III floor, Korean Centre)

APPLIED STOCHASTIC ANALYSIS

Chairman of the Section – Prof. **Asaf Hajiyev**

12 September (Wednesday)

Evening Session (15.00 - 17.30)

Chairman – Prof. **Asaf Hajiyev**

Secretary – **Hilala Jafarova**

- 6.1. *Nozer Singpurwalla*. Resource Exploration and its Transportation Risks. (The George Washington University, USA)
- 6.2. *Agassi Melikov, Turan Jafar-zade*. Numerical Approach to Analysis of Queuing Models with Priority Jumps. (Cybernetics Institute of ANAS, Azerbaijan)
- 6.3. *Alexander Moiseev, Anatoly Nazarov*. Investigation of High Intensive General Flow. (Tomsk State University, Russia)
- 6.4. *Elizbar Nadaraya, Petre Babilua, Grigol Sokhadze*. One Nonparametric Estimation of the Bernoulli Regression. (Faculty of Exact and Natural Sciences, I. Javakhishvili Tbilisi State University, Georgia)
- 6.5. *Ekaterina Moiseeva, Anatoly Nazarov*. Asymptotic Analysis of RQ-Systems $M|M|1$ on Heavy Load Condition. (Tomsk State University, Russia)
- 6.6. *Irina Sinyakova, Svetlana Moiseeva*. Investigation of Output Flows in the System with Parallel Service of Multiple Requests. (National Research Tomsk State University, Russia)
- 6.7. *Omar Glonti, Zaza Khechinashvili*. One Model of Risky Asset Price Evolution Described by Gaussian Martingale. (I.Javakhishvili Tbilisi State University, Georgia)

13 September (Thursday)

Morning session (10.00 - 13.00)

Chairman – Dr. Soltan Aliyev

Secretary – Dr. Mirvari Hasratova

- 6.8. *Vasyl Gorbachuk, Aydin Gasanov*. Regression Analysis of Time Series vs Cross Section Data. (Glushkov Cybernetics Institute, National Academy of Sciences of Ukraine, Ukraine)
- 6.9. *Omar Purtukhia, Vakhtang Jaoshvili*. Sobolev-Poincare Type Inequalities for Poisson Functionals. (Ivane Javakhishvili Tbilisi State University, A. Razmadze Mathematical Institute, Georgia)
- 6.10. *Olimjon Sharipov, Akmal Qushmuradov*. Strong Laws of Large Numbers for Hilbert Space-valued Dependent Random Fields. (Institute of Mathematics, National University of Uzbekistan, Uzbekistan)
- 6.11. *Charkaz Aghayeva, Qurban Abushov*. Stochastic Maximum Principle for Switching Systems. (Statistics Department of Yasar University, Turkey)
- 6.12. *Jakhongir Azimov*. Asymptotic Properties of the Branching Processes with State – Dependent Immigrations. (Institute of Mathematics, National University of Uzbekistan, Uzbekistan)
- 6.13. *Rahila Sadigova*. Definition of the Probability Characteristic of the System from Given Region for Case $(2+, 1-)$. (Cybernetics Institute of ANAS, Azerbaijan)
- 6.14. *Sevinj Mustafayeva*. Anomalous Diffuzion Influence On Chaotic Sistems By Observation. (Azerbaijan State Oil Academy, Azerbaijan)
- 6.15. *Elshan Ibayev, Tarana Aliyeva, Tofiq Aliyev*. Evident Form of the Laplace Transformation of the Distribution of the First Moment Reaching the Positive Delaying Screen with the Semi-Markovian Process. (Cybernetics Institute of ANAS, Azerbaijan)

POSTER PAPERS

- *Vasily Makarov, Tahir Alizada*. Stable Distributions Conforming to Kinetic Equations. (Technical Institute Branch of Yakut State University Neryungri, Russia)
- *Zurab Zerakidze, Malkhaz Mumladze, Laura Eliauri, Lela Aleksidze*. Consistent Criteria in Metric Space. (Gori univetsity, Georgia)

- *Anar Rustamov*. Measurement of QoS in Wireless Sensor Networks with Single Multimedia Traffic-Class. (Cybernetics Institute of ANAS, Azerbaijan)
- *Bayram Ibrahimov, Faxri Huseynov*. Research of Efficiency Functioning Common Channel Signaling Systems. (Cybernetics Institute of ANAS, Azerbaijan)
- *Famil Mammadov, Milana Orudjeva*. Probabilistic – Timing Performances of a Wireless Local Network with a Controlled Access Protocol. (Azerbaijan Technical University, Azerbaijan)
- *Petre Babilua, Besarion Dochviri, Omar Purtukhia*. On the Convergence of Payoffs. (I. Javakhishvili Tbilisi State University, Georgia)
- *Adalat Kerimov, Sadagat Abdul-zade, Maleyka Azadova, Tarana Aliyeva, Rena Huseynova, Ulviyya Rzayeva, Jeyran Khalilova*. About One Forecast Model of Stochastic Programming Based on Time Series and Genetic Algorithms. (Azerbaijan State Economic University, Azerbaijan)

Section #7

(Baku, Z.Khalilov str.23, **Baku State University, Research Institute of Applied Mathematics**, II floor)

CONTROL AND OPTIMIZATION

Chairman of the Section – Prof. **Fikret Aliev**

12 September (Wednesday)

Evening Session (15.00 - 17.30)

Chairman – Prof. **Fikret Aliev**

Secretary – Dr. **Mutallim Mutallimov**

- 7.1. *Daria Lemtyuzhnikova, Aleksandr Sviridenko, Oleg Shcherbina*. On Local Elimination Algorithms for Sparse Discrete Optimization Problems. (Tavrian National University, Ukraine)
- 7.2. *Salahaddin Yusifov, Elchin Allahverdiyev*. Indirect Indexes of the Operational Regimes of Gaslift Wells. (Azerbaijan State Oil Academy, Azerbaijan)
- 7.3. *Fidan Nuriyeva, Gozde Kizilates, Murat Ersen Berberler*. Experimental Analysis of New Heuristics for the TSP. (Ege University, Turkey)
- 7.4. *Tofiq Rzayev*. The Information Approach To The Analysis Of Chaotic And Stochastic Processes In Nonlinear Control Systems. (Azerbaijan Technical University Azerbaijan)
- 7.5. *Tofiq Rzayev, Aygun Iskenderova*. Problem of Corporate Service in Communication Systems in Non-Stationary Conditions. (Azerbaijan Technical University, Azerbaijan)
- 7.6. *Onur Ugurlu*. A New Heuristic Algorithm for Unweighted Minimum Vertex Cover. (Ege University, Turkey)
- 7.7. *Nesir Huseyin, Anar Huseyin, Khalik Guseinov*. Existence of the Optimal Trajectories of the Controllable System Described by an Affine Integral Equation (Anadolu University, Department of Mathematics, Turkey)
- 7.8. *Mehriban Nasiyati*. Linearized and Quadratic Necessary Optimality Conditions in one 2-D Discrete Optimal Control Problem Involving Functional Constraints of Inequality Type.. (Cybernetics Institute of ANAS, Azerbaijan)

- 7.9. *Ketevan Kutkhashvili, Liana Karalashvili*. Multicriterion Problem of the Control of Large Systems under the Limited Resources. (University of Georgia, Georgia)
- 7.10. *Ozer Ozdemir, Memmedaga Memmedli*. Optimization of Interval Length for Neural Network Based Fuzzy Time Series. (Department of Statistics, Faculty of Science, Anadolu University, Turkey)
- 7.11. *Rufan Akbarov, Shahlar Meherrem, Yesim Cingillioglu*. Switching Discrete Control Problem. (Cologne University, Germany)
- 7.12. *Tina Beseri Sevim, Hakan Kutucu, Murat Ersen Berberler*. A New Mathematical Model for Finding Minimum Vertex Cut Set. (Izmir Institute of Technology, Turkey)
- 7.13. *Fikret Aliev, Said Ebadi*. Ranking Efficient DMUs by Bootstrapping Method. (Department of Mathematics, Ardabil Branch, Islamic Azad University, Iran)
- 7.14. *Fikret Aliev, Mutallim Mutallimov, Naila Velieva*. Algorithms for Solving the Optimal Stabilization Problem in Gaslift Process. (Institute of Applied Mathematics, Baku State University, Azerbaijan)

13 September (Thursday)

Morning Session (09.30 - 13.00)

Chairman – Prof. Kamil Aida-zade

Secretary – Dr. Nargiz Safarova

- 7.15. *Fazil Ismailov, Zakir Zabidov, Chingiz Abdurahmanov*. On the Rational Placing of Land Remote Sensing Network of Urban Air Baku. (Institute of Ecology ANAS, Azerbaijan)
- 7.16. *Gazanfar Rustamov*. Invariant Control Systems of Second Order. (Azerbaijan Technical University, Azerbaijan)
- 7.17. *Aida-zade Kamil, Guliyev Samir*. Some Approaches to Solve Feedback Control Problems for Nonlinear Dynamic Systems. (Azerbaijan State Oil Academy, Azerbaijan)
- 7.18. *Onur Ugurlu, Murat Ersen Berberler, Gözde Kızılates, Mehmet Kurt*. New Algorithm for Finding Minimum Vertex Cut Set. (Ege University, Turkey)
- 7.19. *Yegana Ashrafova*. A Problem of Optimal Control of the Processes with Unknown Initial Conditions. (Cybernetics Institute of ANAS, Azerbaijan)

- 7.20. *Kamil Aida-zade, Yegana Ashrafova*. A Problem of Determination of Leakages in Oil Pipeline Networks. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.21. *Saftar Huseynov, Seving Karimova*. Numerical Solution to Optimal Control Problem for a Quasi-Nonlinear Parabolic Equation. (Azerbaijan State Oil Academy, Azerbaijan)
- 7.22. *Jamila Asadova*. Optimization of the Transients in Oil Pipelines on a Class of Piecewise Constant Functions. (Institute of Cybernetics of ANAS, Azerbaijan).
- 7.23. *Nikolay Filimonov*. Polyhedral Methodology of Optimization of Control Processes. (Lomonosov Moscow State University, Russian)
- 7.24 *Givi Bolkvadze, Besarion Shanshiashvili*. Mathematical and Computer Modelling of Adaptive Systems Identification and Control with Power Objects on the Basis of Wiener-Hammerstein Model. (Georgian Technical University, Georgia).
- 7.25. *Kamil Aida-zade, Samir Guliyev*. Numerical Solution to an Inverse Problem for Quasilinear Parabolic Equation. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.26. *Aghaddin Niftiyev , Gamar Mammadova , Reyhan Shikhlinskaya*. The Existence of Solution of Fuzzy Differential Equation. (Institute of Applied Mathematics, Baku State University, Azerbaijan)
- 7.27. *Can Atilgan, Urfat Nuriyev*. A Hybrid Heuristic Algorithm for the Multidimensional Knapsack Problem. (Ege University, Turkey).

Evening Session (14.30 - 17.30)

Chairman – Prof. Hamlet Guliyev

Secretary – Dr. Naila Veliyeva

- 7.28. *Kamil Mansimov, Saadat Aliyeva*. Necessary Optimality Conditions of Second Order in a Discrete Problem on Control of Fornazini-Markezini Systems. (Baku State University, Azerbaijan)
- 7.29. *Marina Khoroshko*. Interactive System for Solving Vector Optimization Problems and its Applications. (Institute of Cybernetics of Azerbaijan National Academy of Sciences, Azerbaijan)
- 7.30. *Ali Ramazanov*. Stability Gradient Algorithm on Jordan-Dedekind Structures. (Baku State University, Azerbaijan)

- 7.31. *Kamil Mansimov*. Necessary Optimality Conditions of the First and Second Orders in the Problem of Control of Processes Described by Difference Analogy of Volterra Equation Under Equality and Inequality Type Functional Constraints. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.32. *Zhale Ahmadova, Sevinj Qadirova, Kamil Mansimov*. Necessary Optimality Conditions of First and Second Orders in the Problem of Control of Difference Analogy of Barbashin Type Integro-differential Equation. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.33. *Ilaha Nagiyeva*. Investigation of Singular Controls in Moiseev's Control Problem. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.34. *Rasmiya Amirova*. On one Non-Smooth Optimal Control Problem Described by Volterra Type of Two-Dimensional Difference Equation. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.35. *Hashim Shimiye*v. Main Principles of Decision Making in Conflict Theory. (Baku State University, Azerbaijan)
- 7.36. *Knyaz Mamedov, Sevinj Nagiyeva, Hasan Veliyev*. Methods of Constructing Suboptimal Solution of Multiple Mixed-Boolean Programming Problems. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.37. *Misir Mardanov, Kamil Mansimov*. Investigation of Quasi-singular Controls in Optimal Control Problem Described by Volterra Type Integro-differential Equations.. (Baku State University, Azerbaijan)
- 7.38. *Reshad Mastaliyev*. Necessary Optimality Conditions in one Discrete Problem of Optimal Control Involving Inequality Type Functional Constraints on the Right end of the Trajectory. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.39 *Vera Nazarova*. Control problem of elastic rod oscillations. (Baku State University, Azerbaijan)
- 7.40. *Rashad Mammadov, Gasim Gasimov*. Control of Loaded Parabolic System with Minimal Energy. (Azerbaijan State Oil Academy, Azerbaijan)

14 September (Friday)

Morning Session (09.30 - 13.00)

Chairman – **Prof. Kamil Mansimov**

Secretary – **Dr. Ilgar Mamedov**

- 7.41. *Knyaz Mammedov, Nazim Mammedov.* An Algorithm for Finding Guaranteed Solution in Knapsack Problem. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.42. *Yagub Sharifov, Nazakat Mammadova.* Optimal Control Problem for Impulsive Systems with Integral Boundary Conditions. (Institute of Cybernetics of ANAS, Azerbaijan)
- 7.43. *Rafiq Teymurov.* The Problem of Optimal Control Of Moving Sources for Systems with Distributed Parameters. (Sumgait branch of Azerbaijan Teachers Institute, Azerbaijan)
- 7.44. *Aziz Huseynov.* Control of Powdery Superphosphate Granulation Process (The Azerbaijan Technical University, Azerbaijan)
- 7.45. *Aziz Huseynov.* Adaptive Control and Identification of Powdery Materials Granulation Process. (The Azerbaijan Technical University, Azerbaijan)
- 7.46. *Almaz Aliyeva, Nargiz Rasulova.* Regulation of Water Reservoir Resources Using Alternative Sensors. (Institute of Information Technology of ANAS, Azerbaijan)
- 7.47. *Misraddin Sadygov.* About Extremum Problems with Constraints in a Metric Space. (Baku State University, Azerbaijan)
- 7.48. *Sanan Jafarov, Rauf Nabiyev.* An Automatic Control System of Discrete Dosage Process. (Azerbaijan State Oil Academy, Azerbaijan)
- 7.49. *Nureli Mahmudov.* An Optimal Control for Schrodinger's Equation with Pure Imaginary Coefficient in the Nonlinear Part of the Equation. (Nakhchivan State University, Azerbaijan)
- 7.50. *Vuqar Salmanov, Nureli Mahmudov.* Existence of the Solution of a Discrete Optimal Control Problem for Linear Concentrated Systems with Lions Special Quality Test. (Nakhchivan State University, Azerbaijan)
- 7.51. *Parvana Ibadova, Javid Garayev.* About one Task of Optimal Location of Service Centers of Municipal Transport by Fuzzy Graphs. (The University "Odlar Yurdu", Azerbaijan)

- 7.52. *Ilgar Mamedov*. Neumann Problem in the Non-classical Treatment for a Fourth Order Pseudoparabolic Equation. (Cybernetics Institute of ANAS, Azerbaijan)
- 7.53. *Ilgar Mamedov*. Nonlocal Problem with Bitsadze-Samarsky and Samarsky-Ionkin Type Conditions for a System of Pseudoparabolic Equations. (Cybernetics Institute of ANAS, Azerbaijan)

Section #8

(Baku, B.Vahabzadeh str.9, Institute of Cybernetics of ANAS,
I floor, room #102)

DECISION MAKING FOR SOCIAL- ECONOMIC SYSTEMS

Chairman of the section – Prof. Gorkhmaz Imanov

12 September (Wednesday)

Evening Session (15.00 - 17.30)

Chairman – Prof. Anna Maria Lafuente

Secretary – Dr. Malahat Murtuzayeva

- 8.1. *Nana Akhalaia, David Jalagonia, Nino Liparteliani.* Teaching Some Issues of Problem Solving and Decision Making in the Social Science. (Gori University, Georgia.)
- 8.2. *Adalat Pashayev, Elkhan Sabziev, Zamin Husseynov.* Evaluation of a Regional Investment Projects. (Institute of Cybernetics of ANAS, Azerbaijan)
- 8.3. *Khatuna Bardavelidze, Avtandil Bardavelidze.* Imitation Model of Optimal Tax Rate for Company. (Georgian Technical University, Georgia)
- 8.4. *Masuma Mamedova, Zarifa Jabrailova, Sabina Nobari.* Application of TOPSIS Method in Decision-Making Support of Personnel Management Problems. (Institute of Information Technologies ANAS, Azerbaijan)
- 8.5. *Masuma Mammadova, Faig Mammadzadeh.* Formation of Supply and Demand for IT Specialists on the Base of Competency Model (Institute of Information Technologies ANAS, Azerbaijan)
- 8.6. *Daria Semenova, Natalia Lukyanova.* Random Set Decomposition of Discrete-Continuous Random Variables (Institute of mathematics Siberian Federal University, Russia)
- 8.7. *Vladimir Emelichev, Vladimir Korotkov.* Investigation in Stability of Markowitz's Multicriterial Portfolio Optimization Problem with Wald's Maximin Criteria in Euclidean Metric (Belarusian State University, Belarus)

- 8.8. *Alovsat Aliyev, Roza Shahverdiyeva*. About the Development of the Algorithm to Evaluate the Efficiency of ICT Techno Parks (Institute of Information Technologies ANAS, Azerbaijan)

13 September (Thursday)

Morning Session (09.30 - 13.00)

Chairman – Dr. **Malahat Murtuzayeva**

Secretary – Dr. **Nargiz Safarova**

- 8.9. *Alovsat Aliyev, Roza Shahverdiyeva*. Commercialization Issues of ICT-directed Innovative Processes (Institute of Information Technology ANAS, Azerbaijan)
- 8.10. *Samir Pur Riza, Malahat Murtuzayeva*. Application Saaty Pair Comparisons Method to the Investments Distribution in Parameters of Ecological Sustainability. (Cybernetic Institute of ANAS, Azerbaijan)
- 8.11. *Victor Semenov*. Gradient Methods to Solve Integer Vector Optimization Problems. (V.M.Glushkov Institute of Cybernetics of NAS Ukraine, Ukraine)
- 8.12. *Valdemar Vitlinsky, Yuriy Kolyada, Vitalii Tukalo*. The Research of Synergetic Models of Non-Linear Economy. (V. Getman Kyiv National Economic University, Ukraine)
- 8.13. *Petro Bidiuk, Aydin Gasanov, Olga Kozhukhivska*. Actuarial Risk Modeling Using Bayesian Approach. (Institute for Applied System Analysis KTUU “Kiev Polytechnic Institute”, Ukraine)
- 8.14. *Gorkhmaz Imanov, Malahat Murtuzayeva, Rovshan Akperov*. Fuzzy Approach to Analysis and Forecast of Social Mobility. (Cybernetic Institute of ANAS, Azerbaijan)
- 8.15. *Anna Maria Gil Lafuente, Anna Klimova, Korkmaz Imanov*. Forgotten Effects in the Comparative Economic Analysis for Spain and Russia in Conditions of Globalization. (University of Barcelona, Spain)

POSTER PAPERS

- *Aygun Huseynova*. Innovations in Industrial Manufacture of Azerbaijan. (Cybernetics Institute of ANAS, Azerbaijan)