



8th IEEE International
Conference >



**APPLICATION
of INFORMATION
and COMMUNICATION
TECHNOLOGIES - AICT 2014**

8th International Conference on

**APPLICATION of INFORMATION and
COMMUNICATION TECHNOLOGIES**

CONFERENCE PROGRAM

15-17 October, Astana, Kazakhstan

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15 October 2014

Location: NAZARBAYEV UNIVERSITY

08:30 – 17:30	Events at the Nazarbayev University
08:30 – 10:00	Registration
10:00 – 10:30	Welcoming and Opening Ceremony
10:30 – 11:30	Keynote Session
11:30 – 12:00	Coffee Break
12:00 – 13:00	Keynote Session (continue)
13:00 – 13:10	Group photo of all participants (location: Atrium stairs)
13:10 – 14:00	Lunch
14:30 – 16:00	Tutorial Session
16:00 – 16:20	Coffee Break
16:20 – 17:20	Tutorial Session
17:30	Transportation to hotels

16 October 2014

Location: NAZARBAYEV UNIVERSITY

09:30 – 10:00	Registration
10:00 – 11:30	Tutorial and Mini Session Session
11:30 – 12:00	Coffee Break
12:00 – 13:00	Technical Sessions
13:00 – 14:00	Lunch
14:00 – 15:30	Concurrent Technical Sessions
15:30 – 16:00	Coffee Break
16:00 – 17:30	Concurrent Technical Sessions
17:30 – 20:00	City Sightseeing Tour (invitation will be provided during registration)
20:00	Banquet Dinner (invitation will be provided during registration)

17 October 2014

Location: GUMILYOV EURASIAN NATIONAL UNIVERSITY

10:00 – 10:30	Welcome Speech
10:30 – 10:50	Coffee Break
11:00 – 13:30	Concurrent Technical Sessions
13:30 – 14:30	Lunch
14:30 – 15:30	Closing Ceremony

AICT2014 International Conference



OCTOBER, 2014

Locations:
NAZARBAYEV UNIVERSITY

15 October 2014

Location: NAZARBAYEV UNIVERSITY

10:00–10:30
Hall: Main

WELCOMING AND OPENING CEREMONY

Professor Aslan Sarinzhypov,

Minister of Education and Science of the Republic of Kazakhstan

Assoc.Prof. Abzетdin Adamov,

AICT2014 General Chair, Azerbaijan

Professor Shigeo Katsu,

President of Nazarbayev University, Kazakhstan

Professor Yerlan Sydykov,

Gumilyov Eurasian National University Rector, Kazakhstan

Professor Ahmet Sanich,

Qafqaz University Rector, Azerbaijan

Akzhunus Urazalina,

Director of Center for training of information security specialists, Prime Minister Office, Kazakhstan

Nurlan Isin,

President of Association of IT Companies of Kazakhstan

Mehmet Haseki,

Representative of Institute of Electrical and Electronics Engineers (IEEE), Turkey

Leila Aitmukhanova,

Chevron Corporation

Philip Purnell,

Thomson Reuters, United Arab Emirates

Dr. Gennady Smorodin,

EMC Corporation, Russia

10:30–11:30
Hall: Main

KEYNOTE SESSION

Speaker: Assoc. Prof. Arnur G Tokhtabayev

Founder and CEO of T&T Security, Kazakhstan

Title: Next Generation User Oriented Cyber-attacks and Emerging Solutions.

Speaker: Professor Vladislav Sherstyuk

Advisers to the Secretary of the Security Council of the Russian Federation. Director of Information Security Institute of Moscow State University, Russia

Title: Actual problems of international information security.

11:30–12:00 Coffee Break

12:00–13:00 | **Keynote Session (continue):**

Speaker: **Ms. Bikesh Kurmangaliyeva**
*Deputy Chairperson of the Board, "Zerde" National
ICT Holding, Kazakhstan*

Title: TBD

Speaker: **Professor Mehmet Ufuk Caglayan**
*Department of Computer Engineering, Bogazici
University, Turkey*

Title: Why Formal Specification and Verification in
Computer Security?

Speaker: **Professor Petr Sosnin**
Ulyanovsk State Technical University, Russia

Title: Ontological Maintenance of Conceptual
Experimenting in Design of Software Intensive
Systems

13:00–14:00 | **Group photo (location: Atrium stairs)**

13:10–14:00 | **Lunch**

AFTERNOON – 15 October 2014

Location: NAZARBAYEV UNIVERSITY

14:30–16:00 | **TUTORIAL SESSION**
Hall: Main

Speaker: **Philip Purnell**
Customer Education Manager, Thomson Reuters, UK

Title: Modern Trends in Research Evaluation

16:00–16:20 | **Coffee Break**

16:20–17:20 | **TUTORIAL SESSION**
Hall: Main

Speaker: **Dr. Gennady Smorodin**
*EMC Corporation (EMC St Petersburg Development
Center LLC), Russia*

Title: Transfer yourself - join to EMC Academic community

AICT2014 International Conference



OCTOBER, 2014

Locations:

**NAZARBAYEV UNIVERSITY /
GUMILYOV EURASIAN NATIONAL UNIVERSITY**

16 October 2014

Location: NAZARBAYEV UNIVERSITY

**INTERNATIONAL INFORMATION SECURITY RESEARCH
CONSORTIA (IISRC) CONFERENCE /
EURASIAN PKI-FORUM KAZAKHSTAN 2014**

Location: GUMILYOV EURASIAN NATIONAL UNIVERSITY

09:30 – 10:00	Registration
10:00 – 11:00	Welcome Addresses
11:00 – 11:20	Coffee Break
11:20 – 13:00	Session 1 - Adaptation of International Law Norms to Cyber Conflicts
13:00 – 14:00	Lunch
14:00 – 15:30	Session 2 - Threats of ICT use for intervention into internal affairs of sovereign states
15:30 – 15:50	Coffee Break
15:50 – 16:30	Session 3 - Information Security of Critical Infrastructure / IISRC organizational procedures

10:00–11:30

TUTORIAL and MINI SESSION

- Hall A** *Speaker: Prof. Valery Sklyarov, Iouliia Skliarova*
University of Aveiro, IEETA, Portugal
Title: Programmable Systems-on-Chip for Information
Processing.
- Hall B** *Moderator: Leila Aitmukhanova*
Chevron Corporation, Kazakhstan
Title: Mini Session on: ICT in Energy Efficiency

11:30–12:00

Coffee Break

12:00–13:00
Hall: A

TUTORIAL

- Speaker: Vitaly Bugaev**
*CIO, Head of Support, “Doctor Web – Central Asia”
LLC, Kazakhstan*
Title: “The vulnerability of Protection” (or Why do despite
the funds, professionals and the desire to protect the
systems, new viruses appear in the network?).

13:00–14:00 Lunch

14:00–17:30 CONCURRENT TECHNICAL SESSIONS

SESSION 1 CYBER SECURITY ISSUES

Session Co-Chairs:

Time: 14:00–17:30

Hall: A

15:30–16:00 Coffee Break

1. A New Robust Binary Image Embedding Algorithm in Discrete Wavelet Domain

by Ahmed Mohammed, Al-Hadba University, Mosul, Iraq; Hakan Hadi Maraş, Çankaya University, Ankara, Turkey; Ersin Elbasi, The Scientific and Technological, Research Council of Turkey, Ankara, Turkey.

2. Combined side-channel attacks on COMP128

by Alla Levina, Mikhail Korovkin, Daria Sleptsova, ITMO University, St. Petersburg, Russia.

3. Towards Integration of Risk-Driven and Evidence Driven Information Security Measurement

by Reijo M. Savola, VTT Technical Research Centre of Finland, Oulu, Finland.

4. Cryptanalysis of secret sharing schemes based on spherical spaces

by Chervyakov N.I., Babenko M.G., Deryabin M.A., Nazarov A.S., North Caucasian Federal University – NCFU, Stavropol, Russia.

5. The geometry of fuzzy sets in the systems of information security

by Lukina O., Majewski D., Kulagina E., Omsk State Institute of Service, Omsk, Russia.

6. Algorithm of Multithreshold Decoding for Non-Binary Self-Orthogonal Concatenated Codes

by Valery Zolotarev, Institute of Space Researches, Russian Academy of Sciences, Moscow, Russian Federation; Gennady Ovechkin, Ryazan State Radio engineering University, Ryazan, Russian Federation; Yerzhan Seitkulov, The Institute of Information Security and Cryptology, L.N. Gumilyov Eurasian National University, Astana, Republic of Kazakhstan; Dina Satybalдина, Nurlan Tashatov, Vitaly Mishin, L.N. Gumilyov Eurasian National University, Astana, Republic of Kazakhstan.

7. Securing Swarm Intellect Robots with a Police Office Model

by I. A. Zikratov, I. S. Lebedev, E. V. Kuzmich, *ITMO University, Saint-Petersburg, Russian Federation*; A. V. Gurtov, *Helsinki Institute of Information Technology, Finland*.

8. Robust Security Network Association Adjusted Hybrid Authentication Schema

by Viktors Gopejenko, *Sergejs Bobrovskis, ISMA University of Applied Sciences, Riga, Latvia*.

9. Software Implementation of the Nonpositional Cryptography Algorithms

by Rustem Biyashev, *Nursulu Kapalova, Rinat Khakimov, Saule Nyssanbayeva, Ministry of Education and Science, Institute of Information and Computational Technologies, Almaty, Kazakhstan*.

10. Polyalphabetic Euclidean Ciphers

by Vladimir D. Ten, *Kazakh-British Technical University, Almaty, Kazakhstan*; Aizhan B. Dyussenbina, *Kazakh-British Technical University, Almaty, Kazakhstan*..

11. Development Of A Hybrid Web Application Firewall To Prevent Web Based Attacks

by Adem Tekerek, *Gazi University, Ankara, Turkey*; Cemal Gemci, *Cymsoft Bilişim Teknolojileri, Ankara, Turkey*; Ömer Faruk Bay, *Gazi University, Ankara, Turkey*.

12. Analysis of Security Vulnerabilities and Threat Assessment in Cognitive Radio (CR) Networks

by Syed Rizvi, *John Mitchell, Nathan Showan, Pennsylvania State University, Altoona-PA, USA*.

13. Scalable Protocol for Remote Integrity Attestation of Cloud Based Distributed Services

by Siamak Azadiabad, *Hossein Pedram, Amirkabir University of Technology, Tehran, Iran*; Mohammad Reza Abbasy, *Advanced Informatics School, University Technology Malaysia, KL, Malaysia*.

14. tBox: A System to Protect a “Bad” User from Targeted and User-Oriented Attacks

by Arnur G. Tokhtabayev, *Batyrlan Aymyshev, Yerzhan Seitkulov, T&T Security, Kazakhstan*; L.N. Gumilyov *Eurasian National University, Kazakhstan*.

SESSION 2.1
LATEST TRENDS IN ICT APPLICATION

Session Co-Chairs:

Time: 14:00–17:30

Hall: B

15:30–16:00 Coffee Break

1. Perceptual MVDR-based Unsupervised Built-in Speaker Normalization for Kazakh Speech Recognition

by Zhandos Yessenbayev, Nazarbayev University Research and Innovation System, Kazakhstan; Umit Yapanel, Yapanel Speech Technologies Sunnyvale, USA.

2. The integrated life cycle model of configurable information system

by Sergey Kucherov, Julia Lipko, Oksana Schevchenko, Engineering and technology academy, Southern federal university, Taganrog, Russia.

3. Solving the bi-dimensional two-way number partitioning problem with heuristic algorithms

by Mehmet Hacibeyoglu, Vahit Tongur, Necmettin Erbakan University, Konya, Turkey; Kemal Alaykiran, Necmettin Erbakan University, Konya, Turkey.

4. Control System for technical objects with automatic backlash compensation

by Gulyaev S.V., Pashchenko F.F., Pashchenko A.F, Institute of Control Sciences, RAS, Moscow, Russia.

5. The information environment for the integrated life cycle model of configurable information system

by Yuri Rogozov, Alexander Sviridov, Alexey Degtyarev, Engineering and technology academy, Southern federal university, Taganrog, Russia.

6. The control in the structure of configurable information system

by Yuri Rogozov, Julia Lipko, Oksana Schevchenko, Engineering and technology academy, Southern federal university, Taganrog, Russia.

7. Actuation Design Methodology for Haptic Interfaces and Rehabilitation Systems

by Michele Folgheraiter, Nazarbayev University, School of Science and Technology, Astana, Kazakhstan.

8. Methodical Approaches for Qualitative Analysis of Dynamical Systems in Interactive Learning of Applied Mathematics

by S.T.Huseynov, Ganja State University (GSU), Ganja city, Azerbaijan Republic.

9. Contaminant and Foreign Fiber Detection in Cotton Using Gaussian Mixture Model

by Kadir A. Peker, Gökhan Özsarı, Melikşah University, Kayseri, Turkey.

10. The integrated model of representation model of representation oriented knowledge in information systems

by V. V. Bova, V. V. Kureichik, A. A. Lezhebokov, Southern federal university, Russia.

11. Development of the Complex of Software Applications to Control the State of Total Thermal Energy of an Elastic Rod

by Kanat Amirtayev, Akzhan Ibadullayeva, Zhazira Shermentayeva, A.Yesevi International Turkish-Kazakh University, Turkestan, Kazakhstan; Lyazat Naizabayeva, Institute of Information and Computing Technologies, Almaty, Kazakhstan.

12. The Concept of Methodological Information Systems Development

by Yury Rogozov, Alexander Sviridov, Institute of Computer Technology and Information Security, Southern Federal University, Taganrog, Russia.

13. Mathematical model for optimal designing of reliable information systems

by Seilkhan Boranbayev, Sanzhar Altayev, Askar Nurbekov, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan; Askar Boranbayev, Nazarbayev University, Astana, Kazakhstan.

SESSION 3.1
BIG DATA, DATA MINING AND DATA ENGINEERING

Session Co-Chairs:

Time: 14:00–17:30

Hall: C

15:30–16:00 Coffee Break

- 1. Methodologies of Internet portals users' short messages texts authorship identification based on the methods of mathematical linguistics**

by Sukhoparov Milhail, Lebedev Ilya, SPb NRU ITMO, Saint-Petersburg, Russia.

- 2. Integration of results from Recognition Algorithms and its realization at the Uranium Production Process**

by Gritsenko P., Iskakov S., Muhamediyev R., Yakinin K. , IITU , Kazakhstan.

- 3. Structure-independent databases modelling**

by Yuri Rogozov, Segrey Kuchero, Elena Borisova, Engineering and technology academy, Southern federal university, Taganrog, Russia.

- 4. Cognitive Analysis of Relations between Concepts of the Problem Area(the Example of a Small Enterprise)**

by O.N. Luchko, Omsk State Institute of Service OGIS Omsk 644099, Russian Federation; V.A. Marenko, Sobolev Institute of Mathematics, Siberian Branch of the Russian Academy of Sciences IM SBRAS Novosibirsk 63090, Russian Federation.

- 5. Performance estimation of selecting and inserting procedures in the structure-independent database**

by Alexander Sviridov, Andrey Grishchenko, Svetlana Belousova, Southern Federal University, Taganrog, Russia.

- 6. Preprocessing of Experimental Seismic Data**

by Naila Allakhverdiyeva, Baku Higher Oil School - BHOS, Azerbaijan.

- 7. The Implementation of a Knowledge Management System Model**

by Zhomartkyzy Gulnaz, Balova Tatiana, D. Serikbayev East Kazakhstan State Technical University, Ust-Kamenogorsk, Kazakhstan.

- 8. Data Mining and Analysis in Depth. Case Study of Qafqaz University HTTP Server Log Analysis**

by Abzetdin Adamov, Qafqaz University, Azerbaijan.

- 9. Recognition of traffic signs**

by Sagandykova Aigerim, Zhaparov Meirambek, Zhakenov Askar, Amirgaliyev Yedilkhan, Suleyman Demirel University, Kaskelen, Kazakhstan.

10. An Application Framework for Scheduling Optimization Problems

by Oğuzhan Kocatepe, Ataşehir Adıgüzel University, Istanbul, Türkiye.

11. TOFI technology capabilities for data processing and visualization

by M. Gabbasov, Factor Company of System Research LLP, Astana, Kazakhstan.

12. Organization of standard cubes and algorithms in TOFI technology

by Kuanov T.Zh., Turganbayev N.S., Abilkayeva Zh.N., Ismagulova F.E., Factor Company of System Research LLP, Astana, Kazakhstan.

13. Development technology OR3 for software program and information system

by B. Berentayev, O. Denisenko, N.Issin, Tamur Company LLP, Astana, Kazakhstan.

SESSION 4.
COMMUNICATION, NETWORK AND HARDWARE

Session Co-Chairs:

Time: 14:00–17:30

Hall: D

15:30–16:00 Coffee Break

1. Dimensioning traffic performance in IMS network

by BA Alassane, Laboratory of Computer, Network and Telecommunications, Cheikh Anta Diop University of Dakar, Senegal; Boudal NIANG, Multinational High School of Telecommunications ESMT Dakar, Senegal.

2. A Review Of Protocols Related To Enhancement Of TCP Performance In Wireless And WLAN Networks

by Ahad Mammadov, Babak Abbasov, Qafqaz University, Baku, Azerbaijan.

3. Design and construction a model of remote control software mobile robot for MAS

by Abu A. Kuandykov, International IT University, Almaty, Kazakhstan; Dinara K. Kozhamzharova, K.I. Satpaev Kazakh National Technical University, Almaty, Kazakhstan; Olimzhon A. Baimuratov, Suleyman Demirel University, Almaty, Kazakhstan; Nurlan B. Karimzhan, International IT University, Almaty, Kazakhstan.

4. Rationale for the Method of Formation of the Combined Speech Masking Signals

by Yerzhan Seitkulov, Seilkhan Boranbayev, Banu Yergaliyeva, Institute of Information Security & Cryptology, Gumilyov Eurasian National University, Astana, Kazakhstan; Gennady Davydov, Alexander Patapoviche, Belarusian state University of Informatics and Radioelectronics, Minsk, Belarus.

5. Programmable Systems-on-Chip for Information Processing

by Valery Sklyarov, University of Aveiro, Portugal; Iouliia Skliarova, University of Aveiro, Portugal.

6. The advantages of creating an application to archive data from a mobile device in LabVIEW environment

by Štefan Koprda, Zoltán Balogh, Milan Turčáni, Constantine the Philosopher University in Nitra, Nitra, Slovakia.

7. Evaluation of digital broadcasting and the mobile communication

by Yelena Chaiko, Riga Technical University (RTU), Riga, Latvia; Muratbek Dzhamanshalov, Kazakh National University (KazNTU), Almaty, Kazakhstan.

8. Independent subsets search in a directed graph

by V. Kureychik, A. Kazharov, Southern Federal University, Russia.

9. QoE-based Network-Centric Resource Allocation for On-demand Uplink Adaptive HTTP Streaming over LTE Network

by Farhan Pervez, COMSATS Institute of Information Technology, Lahore, Pakistan; Muhammad Salman Raheel, University of Wollongong, New South Wales, Australia.

10. Localization of computer acoustic signal source

by A. Spivak, A. Andreev, D. Sleptsova, ITMO University, St. Petersburg, Russia.

11. Methodology of Building Intelligent Systems on Parallel Processor

by Yerzhan Seitkulov, Arnur Tokhtabayev, Sabyrzhan Atanov, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan; Nikolai L. Verenik, Alexey I. Girel, Mikhail M. Tatur, Belarusian State University of Informatics and Radioelectronics, Minsk, Belarus

12. A Fuzzy Logic Based Scheduling Approach to Improve Fairness in Opportunistic Wireless Networks

by Hakkı Soy, Necmettin Erbakan University, Konya, Turkey; Ozgur Ozdemir, Fatih University, Istanbul, Turkey.

13. Channel Estimation for SM Systems over Time-Varying Rayleigh Fading Channels

by Yusuf Acar, Istanbul Kultur University, Turkey; Hakan Dogan, Istanbul University, Turkey; Erdal Panayircı, Kadir Has University, Turkey.

14. Word Implementation of Intellectual Immune Network Technology Controlling the Complex Objects

by Samigulina G.A., Institute of Information and Computing Technologies, Almaty, Kazakhstan; Samiguline Z.I., Kazakh National Technical University after K.I. Satpaev, Almaty, Kazakhstan.

SESSION 5.
ICT IN GOVERNANCE, BUSINESS ADMINISTRATION,
FINANCE AND ECONOMY

Session Co-Chairs:

Time: 14:00–17:30

Hall: E

15:30–16:00 Coffee Break

1. Sales Company Working Capital Adjustment on bases of Fuzzy Logic Model

by Dmitrii Nazarov, Institute of information technologies, Ural state university of economics, Yekaterinburg, Russia; Gennady Smorodin, St Petersburg Center of Excellence, EMC Corporation, St. Petersburg, Russia.

2. Analysis of financial risk in the stock market Pricing modeling of Kazakhmys shares(2007-2014)

by Kurenkeyeva Dariyash, Nussipbekova Gulmira, International Information Technologies University, Almaty, Kazakhstan; Amangaliyeva Shnara, International Information Technologies University, Kazakhstan Stock Exchange Joint-Stock Company, Almaty, Kazakhstan; Nussipbekov Abay, Al-Farabi Kazakh National University, Almaty, Kazakhstan.

3. Developing high resolution remote sensing technology into an advanced knowledge management system to monitor and assess water resources

by Kaskina, D., Bradshaw, R.A., James, A., Kho, Y.H., Kabiyeva, M., Nazarbayev University, Astana, Kazakhstan.

4. Flexible database for configurable information systems The relational approach.

by Sergey Kuchеров, Alexey Samoylov, Andrei Grishchenko, Engineering and technology academy, Southern federal university, Taganrog, Russia.

5. Development of information support systems for management of innovative structures.

by Rasim M.Algulyiyev, Institute of Information Technology of ANAS, Baku, Azerbaijan; Shafa T.Aliyev, Sumgait State University, Sumgait, Azerbaijan; Alovzat G.Aliyev, Institute of Information, Technology of ANAS, Baku, Azerbaijan; Roza O. Shahverdiyeva, Institute of Information, Technology of ANAS, Baku, Azerbaijan.

6. Approach to automatized formation of workplaces structure in configurable information systems

by Alexander Sviridov, Julia Lipko, Alexander Belikov, Engineering and technology academy, Southern federal university, Taganrog, Russia .

- 7. The method of formal business processes representation for configurable information systems The metacomputation approach**
by Yuri Rogozov, Alexander Sviridov, Vladimir Lebedev, *Engineering and technology academy, Southern federal university, Taganrog, Russia.*
- 8. Optimization of intelligent fuzzy controllers for industrial facilities**
by Y.I. Kudinov, A.Y. Kelina, *Lipetsk State Technical University, Russia;* A.F. Pashchenko, F.F. Pashchenko, *Institute of Control Sciences RAS, Russia.*
- 9. Barriers Facing the Diffusion of Innovation in ICT Sector in Sudan**
by Nader Nada, *Fatih University, Istanbul, Turkey;* Nadir Ahmed Gaylani, *Abusfian Elgelany, Sudan University of Science Technology, Khartoum, Sudan;*
- 10. Premises for the creation of renewable energy sources GIS monitoring**
by Ravel I. Muhamedyev, Andrey D. Giyenko, Victor T. Pyagai, *International IT University, Almaty 050040, Kazakhstan;* Kairat Bostanbekov, *KazNTU, Almaty, Kazakhstan.*
- 11. Multi-factorial predictive modelling of drug addiction for large urban areas**
by Sergey A. Mityagin, Sergey V. Ivanov, Alexander V. Boukhanovsky, *ITMO University, Saint-Petersburg, Russia.*
- 12. Evaluation of spatial brucellosis distribution using the Geographic Information System Towards Building a High Performance Spatial Epidemiology System for Supervision on Zoonotic Infections**
by Andrey N. Kuznetsov, Marat S. Syzdykov, *Brucellosis laboratory, Kazakh Scientific Center of Quarantine and Zoonotic Diseases, City of Almaty, Kazakhstan.*
- 13. Using a knowledge base in developing modification for MS Dynamics AX**
by Viktor Mokerov, D. Serikbayev *East Kazakhstan state technical university. Ust-Kamenogorsk, Kazakhstan.*
- 14. e-Government Services Vulnerability**
by Dr. Ali Shahintash, Dr. Yashar Hajiyeve, *Qafqaz University, Baku, Azerbaijan.*
- 15. Computer Simulation of Conformational Behaviour of Human and Rat/Mouse Hemokinin-1 Molecules**
by U.T.Agaeva, G.A. Agaeva, *Baku State University, Baku, Azerbaijan;* N.M.Godjaev, *Qafqaz University, Baku State University, Baku, Azerbaijan.*

SESSION 6.1
ICT IN EDUCATION, HUMANITIES, SOCIAL SCIENCES AND
RESEARCH

Session Co-Chairs:

Time: 14:00–17:30

Hall: F

15:30–16:00 Coffee Break

- 1. ICT Supported Vocational Training in the Motor-Car Repair Area**
by Alena Hašková, Constantine the Philosopher University in Nitra, Slovak Republic; Martin Zatkalik, Secondary Vocational School in Senec, Slovak Republic.

- 2. An automatic evaluation of machine translation and Slavic languages**
by Dasa Munkova, Michal Munk, Constantine the Philosopher University in Nitra, Slovakia.

- 3. Effective Educational Augmented Reality Applications: Points to Consider**
by Sevda Kucuk, Istanbul University, Istanbul, Turkey; Rabia M. Yilmaz, Yuksel Goktas, Ataturk University, Erzurum, Turkey.

- 4. Research output and performance in Central Asia A Bibliometric Study**
by Philip J Purnell, Thomson Reuters, Dubai Media City, United Arab Emirates.

- 5. System for Sign Language Modeling and Learning**
by Iu.V.Krak, M.P.Lisnyak, Taras Shevchenko National University, Kyiv, Ukraine; G.N. Ermagambetova, S.A.Kudubayeva, Akhmet Baytursynov Kostanay State University, Kostanay, Kazakhstan.

- 6. Fast-FMI: non-reference image fusion metric**
by Mohammad Haghghat, University of Miami, USA; Masoud Amirkabiri Razian, University of Tabriz, Iran.

- 7. E-learning Assisted Teaching of Technical Subjects**
by Gabriel Báñez, Alena Hašková, Constantine the Philosopher University in Nitra, Nitra, Slovak Republic.

- 8. Interactive Auditorium Response and Student Progress Evaluation System**
by Yashar Hajiyev, Qafqaz University, Baku, Azerbaijan; Khatira Salimova, International Education and Innovation Centre IEIC, Baku, Azerbaijan.

9. New Proposals about Evaluation of Complete e-Learning Course Digestion

by Evgeny A. Eremin, Perm State Pedagogical University, Perm, Russian Federation.

10. A Personal Ontology of an Individual Occupational Experience

by Petr Sosnin, Ulyanovsk State Technical University, Ulyanovsk, Russia.

11. Software Module “Virtual Physics Laboratory” in Higher Education

by Yevgeniya Daineko, International IT University, Institute of Applied Sciences and Information Technologies, Almaty, Kazakhstan; Viktor Dmitriyev, International University of Informational Technologies, Almaty, Kazakhstan.

12. Using Computational Models for Development of the Three-Dimensional Visualization in Molecular Biology

by Ravil I. Muhamedyev, Y. Daineko, D. Bari, International IT University, Almaty, Kazakhstan; Alma T. Mansharipova, Kazakh-Russian Medical University, Almaty, Kazakhstan.

AICT2014 International Conference



OCTOBER, 2014

Locations:

GUMILYOV EURASIAN NATIONAL UNIVERSITY

17 October 2014

Location: GUMILYOV EURASIAN NATIONAL UNIVERSITY

10:00–13:00

CONCURRENT TECHNICAL SESSIONS

**SESSION 2.2
LATEST TRENDS IN ICT APPLICATION**

Session Co-Chairs:

Time: 10:00–13:00

Hall: A

11:30–11:50 Coffee Break

- 1. The Concept of Methodological Information Systems Development**
by Viktor Shved, The FSTEC of Russia, Saint-Petersburg, Russia; Pavel Kuzmich, Viktoria Korzhuk, ITMO University, Saint-Petersburg, Russia.

- 2. Estimation of Transactional Reliability of Object-Oriented Software of Information and Control Systems**
by Roman Yu. Tsarev, Siberian Federal University, Krasnoyarsk, Russia; Renat V. Younousov, Siberian Federal University, Krasnoyarsk, Russia.

- 3. Augmented reality based on Kazakh instrument "Dombyra"**
by Zhaparov M. K., Assanov U., Suleyman Demirel University, Kaskelen, Kazakhstan.

- 4. Theory of Bioinspired Search for Optimal Solutions and its Application for the Processing of Problem-Oriented Knowledge**
by Sergey Rodzin, Lada Rodzina, Southern Federal University, Taganrog, Russia.

- 5. Design of Embedded Gesture Recognition System for Robotic Applications**
by Ainur Begalinova, Almas Shintemirov, Nazarbayev University, Astana, Kazakhstan.

- 6. Cloud Computing: State Of The Art Research Issues**
by Babak Abbasov, Qafqaz University, Baku, Azerbaijan.

- 7. Majority voting approach and fuzzy logic rules in license plate recognition process**

by Dana Kassymkhanova, Dmitriy Kurochkin, Natalya Denissova, Saule Kumargazhanova, Aizhan Tebaldinova, D. Serikbayev EKSTU, Oskemen, Kazakhstan.

8. Traffic Speed Sign Recognition with RFID Support

by Bekircan Yavas, Metin Mete Özbilen, Yasemin Yilmaz, Meliksah University, Kayseri, Turkey.

9. Automated Design and Research of the Thin Film Electroluminescent Indicating Devices

by Evsevichev, D.; Maksimova, O.; Samokhvalov, M., The Ulyanovsk State Technical University, Ulyanovsk, Russia.

10. Proverbs as a Model of Real-Life Situations

by A.I.Mehdialiyev, Academy of Public Administration under the President of the Republic of Azerbaijan, Baku, Azerbaijan Republic.

11. Co-evolutional genetic algorithm for workflow scheduling in heterogeneous distributed environment

by Nikolay Butakov, Denis Nasonov, ITMO University, Saint-Petersburg, Russia.

12. Mapping of Software Configuration Management Issues with the Area of Responsibility

by Shukor Sanim Mohd Fauzi, Universiti Teknologi Mara, Malaysia.

SESSION 3.2
BIG DATA, DATA MINING AND DATA ENGINEERING

Session Co-Chairs:

Time: 10:00–13:00

Hall: B

11:30–11:50 Coffee Break

1. A Survey on Comparison of Face Recognition Algorithms

by Ahmet Özdil, Abdullah Gul University, Kayseri, Turkiye; Metin Mete Özbilen, Meliksah University, Kayseri, Turkiye.

2. An Application of Data Mining and Knowledge Discovery Process in The Field of Natural Gas Exploration

by Mehmet Akif Acar, Çankaya University, Ankara, Turkey; Mehmet R.Tolun, Aksaray University, Aksaray, Turkey; Ersin Elbaşı, Tubitak, Ankara, Turkey .

3. Knowledge management based on multi-agent simulation in informational systems

by Yu. A. Kravchenko, V.V. Kureichik, Computer Technology and Information Security Institute, Southern Federal University, Taganrog, Russia.

4. A Pilot Study on Automatic Inference Rule Discovery from Turkish Text

by Gözde Gül İşgüder - Şahin, Eşref Adalı, Istanbul Technical University, Istanbul, Turkey.

5. Big Data: Big Promises for Information Security

by Rasim Alguliyev, Yadiğar Imamverdiyev, Institute of Information Technology, Azerbaijan National Academy of Sciences, Azerbaijan.

6. Evolutionary Data Reorganization For Efficient Workload Processing

by Andrew Razumovskiy, Denis Nasonov, Anton Spivak, Alexander Boukhanovsky, ITMO University, Saint-Petersburg, Russia.

7. Data Mining and Analysis in Depth. Case Study of Qafqaz University HTTP Server Log Analysis

by Abzətdin Adamov, Chair, Computer Engineering Department, Qafqaz University, Baku, Azerbaijan.

8. Application of diversity method for reliability of cloud computing

by Seilkhan Boranbayev, Sanzhar Altayev, Askar Boranbayev, Yerzhan Seitkulov, L.N. Gumilyov Eurasian National University, Astana, Kazakhstan.

9. On Certain Aspects of Kazakh Part-of-Speech Tagging

by Aibek Makazhanov, Zhandos Yessenbayev, Islam Sabyrgaliyev, Anuar Sharafudinov, Nazarbayev University Research and Innovation System, Astana, Kazakhstan; Olzhas Makhambetov, National Information Technologies, Astana, Kazakhstan.

10. Measurement of Edge Detection Algorithms in Clean and Noisy Environment

by Alaa Mohammed MAHMOOD, Hadi Hakan MARAŞ, Computer Engineering Department, Çankaya University IPEK University; Ersin ELBAŞI, Department of Digital Game Design, IPEK University, Ankara, Turkey.

11. Effective Algorithms and Methods for Automatic Number Plate Recognition

by Amirgaliyev Beibut, Kairanbay Magzhan, Kenshimov Chingiz, ABY Applied Systems, Almaty, Kazakhstan.

SESSION 6.2
ICT IN EDUCATION, HUMANITIES, SOCIAL SCIENCES AND RESEARCH

Session Co-Chairs:

Time: 10:00–13:00

Hall: C

11:30–11:50 Coffee Break

**1. Does Your University Have an Instructional Technology Strategy?
Knowing where you are going**

by Dina Vyorkina, Nazarbayev University, Astana, Republic of Kazakhstan.

2. 3D Virtual Environment for Project-Based Learning

by Andrey Karsakov, Anna Bilyatdinova, A.G. Hoekstra, ITMO University, Saint Petersburg, Russia; A.G. Hoekstra, University of Amsterdam, Amsterdam, The Netherlands.

**3. Selecting an Effective Information and Communication Technology
Architecture for an Education System based on Non-functional
Requirements**

by Mujtaba B Ila, Hasan Kitapci, Meliksah University, Kayseri, Turkey.

**4. Evaluation of education in the field of database systems and
technologies within the study programs of economic and managerial
focus**

by Ján Záhorec, Marcela Hallová, Roderik Virágh, Slovak University of Agriculture in Nitra, Slovak Republic; Adriana Nagyová, Comenius University in Bratislava, Bratislava, Slovak Republic.

5. Support system for QR-code-based educational processes

by A.A. Lezhebokov, Yu. A. Kravchenko, V. V. Bova, Computer Technology and Information Security Institute, Southern Federal University, Taganrog, Russia.

6. Parallel Merge Sort with Double Merging

by Ahmet Uyar, Meliksah University, Kayseri, Turkey.

**7. A Study of Certain Morphological Structures of Kazakh and Their
Impact on the Machine Translation Quality**

by Eldar Bekbulatov, Amandyk Kartbayev, Laboratory of Intelligent Information Systems, al-Farabi Kazakh National University, Almaty, Kazakhstan.

8. Distance Education Application Architecture and Cloud Computing

by Muammer Akcay, Dumlupinar University, Kutahya, Turkey; Hasan Armutlu, Karahalli Vocational School, Computer Technologies, Usak University, Usak, Turkey.

9. e-Learning Course Design Based on the Virtual Simulation Objects Concept

by Alexey Dukhanov, Pavel Smirnov, Maria Karpova, Sergey Kovalchuk, eScience Research Institute, ITMO University, St. Petersburg, Russian Federation.

10. Strategic planning of e-learning innovation: interplay between national and institutional levels

by Ulkar Bayramova, Peeter Normak, Mart Laanpere, Institute of Informatics, Tallinn University – TLU, Tallinn, Estonia.

11. Mobile Technologies in Russian Higher Education: Global Trends and Regional Practices

by Anatoly L. Gavrikov, Tamara A. Lisitsyna, Yaroslav-the-Wise Novgorod State University, Velikiy Novgorod, Russian Federation.

12. Development of decision support system to control the quality of education

by Indira Uvalieva, Saule Smailova, D. Serikbaev East Kazakhstan state technical university, Ust-Kamenogorsk, Republic of Kazakhstan.

13. Hydrodynamic of the Dust Storm of the Aral Sea On the base of Remote Sensing Data

by S.K. Kunakov, Y. Daineko, International IT University, Almaty, Kazakhstan; B.N. Alipova, International IT University, Almaty, Kazakhstan.

13:00–14:00 Lunch

**14:00–15:00
Hall: A**

CLOSING CEREMONY