

Preface

International conference Information Technology and Nanotechnology (ITNT-2016) held in Samara at the Samara State Aerospace University.

Languages of the ITNT-2016 Conference: Russian and English.

The goals of the ITNT-2016 Conference are:

- to discuss problems of fundamental and applied researches, computer modeling, development and implementation of information telecommunication systems with leading scientists from Russia, USA, UK, Germany, Pakistan, and India;
- to promote academic and research activities in that direction and to share experiences in teaching IT professionals using innovative educational technology and facilities.

The ITNT-2016 Conference covers a variety of topics related to applications of information technology to aeronautics and astronautics and other branches of high-technology industry.

The major topics of the ITNT-2016 Conference include the following:

- Computer Optics and Nanophotonics (Nanotechnologies, MEMS/NEMS and Microfluidics)
- Image Processing, Geoinformatics and Information Security
- Mathematical Modeling
- High Performance Computing
- Data Science

The ITNT-2016 Conference has been focused on the educational problems providing opportunities to students and young scientists to become familiar with unique scientific equipment and laboratory facilities in order to achieve scientific results in theory, practice and innovation management according to the major topics of the ITNT-2016 Conference.

About 300 people took part in the ITNT-2016 Conference. Over 200 reports have been presented.

Proceedings include scientific papers selected by editors on the base of recommendation of Program Committee. The editors accepted 108 articles for publication after the review of the Conference papers.

Official website of the ITNT-2016 Conference: <http://agora.guru.ru/itnt-2016>.

Organisation

Organizers

Samara Region Government (<http://www.samregion.ru>)

Samara State Aerospace University (<http://www.ssau.ru>)

Image Processing Systems Institute, Russian Academy of Sciences
(<http://www.ipsi.smr.ru/>)

Organizing Committee

Shakhmatov E.V. (Chairman) Samara State Aerospace University, Samara, Russia

Co-Chairpersons

Bogatyrev V.D. Samara State Aerospace University, Samara, Russia

Kazanskiy N.L. Image Processing Systems Institute, Russian Academy of Sciences,
Samara, Russia

Kolomiets E.I. Samara State Aerospace University, Samara, Russia

Executive secretary

Savelyev D.A. Samara State Aerospace University, Samara, Russia

Organizing Committee (Samara State Aerospace University)

Kazarin S.V.

Skidanov R.V.

Kudryashov D.V.

Sobolev V.A.

Kupriyanov A.V.

Fursov V.A.

Popov S.B.

Shepakina E.A.

Sergeev V.V.

Program Committee

Soifer V.A. (Chairman) Samara State Aerospace University, Samara, Russia

Anshakov G.P. State Research and Production Space Rocket Center “TsSKB-
Progress”, Samara, Russia

Budzko V.I. Institute of Informatics Problems of the Russian Academy of Sciences,
Moscow, Russia

Boldyrev Y.I. St.Petersburg Polytechnic University, St. Petersburg, Russia

Vasin Yu.G. Lobachevsky State University of Nizhni Novgorod, Nizhny Novgorod,
Russia

Vizilter Yu.V. FGUP “GosNIIAS”, Moscow, Russia

Gergel V.P. Lobachevsky State University of Nizhni Novgorod, Nizhny Novgorod,
Russia

Kazanskiy N.L. Image Processing Systems Institute, Russian Academy of Sciences,
Samara, Russia

Konov V.I. Natural Sciences Center, Prokhorov General Physics Institute of RAS,
Moscow, Russia

Kupriyanov A.V. Samara State Aerospace University, Samara, Russia

Labunets V.G. Ural Federal University, Ekaterinburg, Russia

Popov S.B. Samara State Aerospace University, Samara, Russia

Paveliev V.S. Samara State Aerospace University, Samara, Russia

Ryazhskih V.I. Voronezh State Technical University, Voronezh, Russia

Sergeev V.V. Samara State Aerospace University, Samara, Russia

Skidanov R.V. Samara State Aerospace University, Samara, Russia

Sobolev V.A. Samara State Aerospace University, Samara, Russia

Fursov V.A. Samara State Aerospace University, Samara, Russia

Jin Guofan Tsinghua University, Beijing, China

Sazhin Sergei University of Brighton, Brighton, United Kingdom

O'Faolain Liam University of St. Andrews, United Kingdom

Michael W. Sobolewski Polish-Japanese Institute of IT, Poland

Editor release

Kudryashov D.V.

Table of Contents

Computer Optics and Nanophotonics

1. E.S. Kozlova.....1-7
Formation of plasmonic nanojets by silver nano-strip
DOI: 10.18287/1613-0073-2016-1638-1-7
2. V.A. Blank, R.V. Skidanov.....8-15
Experimental study of the optical transfer function (OTF) and
spectral accuracy of the imaging hyperspectrometer based
on the Offner scheme
DOI: 10.18287/1613-0073-2016-1638-8-15
3. M.A. Butt, E.S. Kozlova, S.N. Khonina, R.V. Skidanov.....16-23
Optical planar waveguide sensor based on (Yb,Nb):RTP/RTP(001)
system for the estimation of metal coated cells
DOI: 10.18287/1613-0073-2016-1638-16-23
4. S.V. Ganchevskaya, R.V. Skidanov.....24-31
The microturbine rotation by not circular light beam formed by
vortex axicon
DOI: 10.18287/1613-0073-2016-1638-24-31
5. N.V. Golovastikov, D.A. Bykov, L.L. Doskolovich.....32-38
3D pulse diffraction on a phase-shifted Bragg grating
DOI: 10.18287/1613-0073-2016-1638-32-38
6. N.Yu. Ilyasova, D.A. Abulkhanov, A.V. Kupriyanov,
A.V. Karsakov.....39-48
Evaluation of aberrations in the optical system of the human eye
based on the spatial spectrum of a diagnostic image
DOI: 10.18287/1613-0073-2016-1638-39-48
7. E.A. Kadomina, E.A. Bezus, L.L. Doskolovich.....49-54
Diffraction-grating-based Bloch surface wave refractive index sensors
DOI: 10.18287/1613-0073-2016-1638-49-54
8. M.S. Kirilenko, S.N. Khonina.....55-65
Simulation of optical signals propagation in a random media
DOI: 10.18287/1613-0073-2016-1638-55-65
9. M.S. Kirilenko, P.A. Khorin, A.P. Porfirev.....66-75
Wavefront analysis based on Zernike polynomials
DOI: 10.18287/1613-0073-2016-1638-66-75

10. O.A. Mossoulina, N.V. Kalinin, M.S. Kirilenko.....76-82
Calculation of laser radiation diffraction on crystal structures based
on 3d Fourier transform
DOI: 10.18287/1613-0073-2016-1638-76-82
11. S.P. Murzin, E.E. Kostriukov, V.A. Glushchenkov, S.A. Afanasiev,
M.V. Blokhin.....83-88
Influence of initial surface condition on intensity of porous structure
formation in a metallic material during laser action
DOI: 10.18287/1613-0073-2016-1638-83-88
12. S.P. Murzin, A.I. Safin, A.A. Shimanov, M.V. Blokhin,
S.A. Afanasiev.....89- 94
Determination of conditions for nanoporous structure formation
in a metallic material by pulse-periodic laser action
DOI: 10.18287/1613-0073-2016-1638-89-94
13. V.D. Pararin, S.V. Karpeev.....95-102
Amplitude – phase diffraction gratings based on thin layer of
indium tin oxide
DOI: 10.18287/1613-0073-2016-1638-95-102
14. V.V. Podlipnov, A.P. Porfirev, S.A. Degtyarev, S.N. Khonina.....103-110
Diffractive axicons to increase the efficiency of solar cells
DOI: 10.18287/1613-0073-2016-1638-103-110
15. A.P. Porfirev, A.S. Shipilov.....111-116
Laser trapping based on photophoretic forces using a spatial
light modulator
DOI: 10.18287/1613-0073-2016-1638-111-116
16. D.A. Savelyev.....117-124
Diffraction of the Gaussian beam on layered lens and similar a
conical and diffraction axicons
DOI: 10.18287/1613-0073-2016-1638-117-124
17. S.S. Stafeev, M.V. Kotlyar, L. O’Faolain, A.G. Nalimov,
V.V. Kotlyar.....125-131
Subwavelength gratings for generating azimuthally polarized
beams
DOI: 10.18287/1613-0073-2016-1638-125-131
18. V.V. Salmin, S.V. Karpeev, K.V. Peresytkin, A.S. Chetverikov,
I.S. Tkachenko.....132-148
Feasibility study and modeling of components for an in
formational space system based on a large diffractive membrane
DOI: 10.18287/1613-0073-2016-1638-132-148

19. Payal Verma, K. Zaman Khan, S.A. Fomchenkov, R. Gopal.....149- 158
SU-8 based UV-LIGA fabrication process for realization of
nickel based MEMS inertial sensor
DOI: 10.18287/1613-0073-2016-1638-149-158
20. Perna Balyan, Deepika Saini, Supriyo Das, Payal Verma,
Ajay Agarwal.....159-165
Fabrication and characterization of passive micropump for
microfluidics based devices
DOI: 10.18287/1613-0073-2016-1638-159-165
21. A.D. Golovin, A.V. Demin.....166-172
Hyperspectral gas analyzer for monitoring of oil and gas pipelines
DOI: 10.18287/1613-0073-2016-1638-166-172
22. S.R. Abulkhanov, D.S. Goryainov.....173-184
Innovative applications of acoustic waves focusators
DOI: 10.18287/1613-0073-2016-1638-173-184
23. D.V. Kudryashov.....185-193
The scientific advancement and promotion of the journal
"Computer Optics" in 2014-2015
DOI: 10.18287/1613-0073-2016-1638-185-193
24. E.I. Kolomiets.....194-203
For the anniversary of professor S.N. Khonina
DOI: 10.18287/1613-0073-2016-1638-194-203
25. E.I. Kolomiets.....204-212
Professor S.V. Karpeev is 60 years old
DOI: 10.18287/1613-0073-2016-1638-204-212
26. E.I. Kolomiets.....213-222
For the anniversary of professor L.L. Doskolovich
DOI: 10.18287/1613-0073-2016-1638-213-222
27. V.A. Danilov, N.I. Petrov.....223-235
20 years without Iosif Norairovich Sissakian
DOI: 10.18287/1613-0073-2016-1638-223-235
28. V.O. Sokolov.....236-248
Contribution Samara scientists in the development of the
journal "Computer Optics"
DOI: 10.18287/1613-0073-2016-1638-236-248

Image Processing, Information Technology and Information Security

29. I. Abdulganiev, A. Agafonov.....249-255
Automatic checking of road network models
DOI: 10.18287/1613-0073-2016-1638-249-255
30. A.M. Belov, V.V. Myasnikov.....256-262
Research of the atmospheric correction method based on
approximate solution of modtran transmittance equation
DOI: 10.18287/1613-0073-2016-1638-256-262
31. E. Biryukova, R. Paringer, A.V. Kupriyanov.....263-269
Development of the effective set of features construction
technology for texture image classes discrimination
DOI: 10.18287/1613-0073-2016-1638-263-269
32. M.S. Boori, K. Choudhary, A.V. Kupriyanov, A. Sugimoto,
R. Paringer.....270-283
Land use/cover change detection and vulnerability assessment in
Indigirka river basin, eastern Siberia, Russia
DOI: 10.18287/1613-0073-2016-1638-270-283
33. K.I. Budnikov, A.V. Kurochkin, A.A. Lubkov, A.V. Yakovlev.....284-289
Regulation of access to web-resource based on post-analysis of
http-requests
DOI: 10.18287/1613-0073-2016-1638-284-289
34. A.Y. Denisova, V.V. Sergeyev.....290-295
Impulse response identification by energy spectrum method
using geoinformation data in case of remote sensing images
DOI: 10.18287/1613-0073-2016-1638-290-295
35. A.Y. Denisova, V.V. Sergeyev.....296-303
Using GIS Data to identify linear observation model on remote
sensing images in case of spatial mismatch of input image and
vector map
DOI: 10.18287/1613-0073-2016-1638-296-303
36. N.I. Evdokimova, A.V. Kuznetsov.....304-312
Copy-move detection algorithm based on local derivative patterns
DOI: 10.18287/1613-0073-2016-1638-304-312
37. A.V. Gaidel.....313-319
Adjusted polynomial features for analysis of lung CT images
DOI: 10.18287/1613-0073-2016-1638-313-319

38. M.V. Gashnikov.....	320-326
Differential image compression based on adaptive prediction	
DOI: 10.18287/1613-0073-2016-1638-320-326	
39. M.V. Gashnikov.....	327-333
Interpolation for hyperspectral images compression	
DOI: 10.18287/1613-0073-2016-1638-327-333	
40. N.I. Glumov, M.V. Gashnikov.....	334-339
Hyperspectral image compression for transmission over communication channel	
DOI: 10.18287/1613-0073-2016-1638-334-339	
41. Ye.V. Goshin, G.E. Loshkareva.....	340-347
Segmentation of stereo images with the use of the 3d hough transform	
DOI: 10.18287/1613-0073-2016-1638-340-347	
42. A.N. Korabelnikov, A.V. Kolsanov, S.S. Chaplygin, P.M. Zelter, K.V. Bychenkov, A.V. Nikonov.....	348-356
Liver tumor segmentation CT data based on Alexnet-like convolution neural nets	
DOI: 10.18287/1613-0073-2016-1638-348-356	
43. N. Kravtsova, R. Paringer, A.V. Kupriyanov.....	357-363
Development of methods for crystallograms images classification based on technique of detection informative areas in the spectral space	
DOI: 10.18287/1613-0073-2016-1638-357-363	
44. A.A Kuleshova.....	364-372
Generic frame in problems for signal reconstruction without phase	
DOI: 10.18287/1613-0073-2016-1638-364-372	
45. A. Kuznetsov, E. Myasnikov.....	373-378
Copy-move detection algorithm efficiency increase using binary space partitioning trees	
DOI: 10.18287/1613-0073-2016-1638-373-378	
46. E. Minaev, V. Fursov.....	379-385
Support subspaces method for fractal images recognition	
DOI: 10.18287/1613-0073-2016-1638-379-385	
47. V.A. Pechenin, M.A. Bolotov, E.R. Stepanova.....	386-392
Determination of the bilateral filter's parameters for the analysis of surface geometry deviations	
DOI: 10.18287/1613-0073-2016-1638-386-392	

48. A.S. Shirokanev, D.V. Kirsh, A.V. Kupriyanov.....393-400
Application of gradient steepest descent method to the problem of
crystal lattice parametric identification
DOI: 10.18287/1613-0073-2016-1638-393-400
49. N.A. Smelkina, A.V. Kolsanov, S.S. Chaplygin, P.M. Zelter,
A.G. Khramov, A.V. Nikonorov.....401-410
Injured lung volume estimation on CT data using linear metrics
DOI: 10.18287/1613-0073-2016-1638-401-410
50. V.P. Tsvetov.....411-418
On a moment problem for sets of points in the complex plane
DOI: 10.18287/1613-0073-2016-1638-411-418
51. N.S. Vorobiova.....419-427
Crops identification by using satellite images and algorithm for
calculating estimates
DOI: 10.18287/1613-0073-2016-1638-419-427
52. N.S. Vorobiova, A.V. Chernov.....428-436
NDVI time series modeling in the problem of crop identification
by satellite images
DOI: 10.18287/1613-0073-2016-1638-428-436
53. A.S. Yumaganov, V.V. Myasnikov.....437-443
Similarity search over program code sequences using
featureless pattern recognition techniques
DOI: 10.18287/1613-0073-2016-1638-437-443

High-Performance Computing

54. D.L. Golovashkin, L.V. Yablokova, E.V. Belova.....444-450
Application of the method of pyramid for synthesis of parallel
algorithm for difference solution of the two-dimensional partial
differentials equation
DOI: 10.18287/1613-0073-2016-1638-444-450
55. D.V. Kirsh, A.V. Kupriyanov.....451-459
Parallel implementations of parametric identification algorithms
for three-dimensional crystal lattices
DOI: 10.18287/1613-0073-2016-1638-451-459
56. S.V. Vostokin.....460-468
Templet: a markup language for concurrent actor-oriented
programming
DOI: 10.18287/1613-0073-2016-1638-460-468

57. L.V. Yablokova, D.L. Golovashkin.....469-476
Implementation of difference solutions of Maxwell's equations
on the GPU by method of pyramid
DOI: 10.18287/1613-0073-2016-1638-469-476
58. P.Y. Yakimov.....477-483
Real-time road signs recognition using mobile GPU
DOI: 10.18287/1613-0073-2016-1638-477-483

Mathematical Modeling

59. A.Zh. Agataeva, E.A. Shchepakina.....484-492
Critical conditions of ignition of fuel spray containing liquid
fuel droplets
DOI: 10.18287/1613-0073-2016-1638-484-492
60. N.K. Aksenova, V.A. Sobolev.....493-497
Control of a one rigid-link manipulator in the case of
nonsmooth trajectory
DOI: 10.18287/1613-0073-2016-1638-493-497
61. M.A. Mendez Soto, D.P. Porfiriev.....498-507
Numerical study of the aerodynamic performance of NACA 0012
in the presence of an unsteady heat source
DOI: 10.18287/1613-0073-2016-1638-498-507
62. A. Archibasov.....508-514
Reduction in initial boundary value problem for HIV evolution model
DOI: 10.18287/1613-0073-2016-1638-508-514
63. I.A. Blatov, E.V. Kitaeva, A.I. Zadorin.....515-520
On interpolation of functions with a boundary layer by cubic splines
DOI: 10.18287/1613-0073-2016-1638-515-520
64. V.G. Burmistrova, A.A Butov, A.V. Zharkov, Yu.V. Pchelkina.....521-526
Assessing hazard probability factors related to forecasted weather
conditions
DOI: 10.18287/1613-0073-2016-1638-521-526
65. A.N. Danilenko.....527-535
Intelligent psycho-diagnostic forecasting system
DOI: 10.18287/1613-0073-2016-1638-527-535
66. Inderjeet Singh Dhindsa, Ravinder Agarwal,
Hardeep Singh Ryait.....536-541
A novel algorithm to predict knee angle from EMG signals for
controlling a lower limb exoskeleton
DOI: 10.18287/1613-0073-2016-1638-536-541

67. M.I. Geraskin.....542-551
Transferable utility distribution algorithm for multicriteria control
in strongly coupled system with priorities
DOI: 10.18287/1613-0073-2016-1638-542-551
68. M.I. Geraskin, V.V. Egorova.....552-568
The algorithm for dynamic optimization of the production cycle
in bearing industry
DOI: 10.18287/1613-0073-2016-1638-552-568
69. F.V. Grechnikov, Ya.A. Erisov, S.E. Alexandrov.....569-577
Effect of anisotropic yield criterion on springback in plane strain
pure bending
DOI: 10.18287/1613-0073-2016-1638-569-577
70. I.M. Gubaidullin, E.E. Peskova, O.A. Stadnichenko.....578-587
Mathematical modeling of ethane pyrolysis using ENO schemes
DOI: 10.18287/1613-0073-2016-1638-578-587
71. A.A. Khvostov, V.I. Ryazhskih, I.A. Kazmin, N.A. Degtyarev,
A.V. Ivanov.....588-592
Vibrodiagnostics of compressor valves via music pseudo-spectra
DOI: 10.18287/1613-0073-2016-1638-588-592
72. A.P. Kotenko, D.A. Pshenina.....593-599
Multi-criteria optimization based on the regression equation
systems identification
DOI: 10.18287/1613-0073-2016-1638-593-599
73. M.A. Lapshova, E.A. Shchepakina.....600-609
Study of the dynamical model of HIV
DOI: 10.18287/1613-0073-2016-1638-600-609
74. V.V. Lyubimov, E.V. Kurkina.....610-621
Simulation of the dynamics of non-resonant motion in a
controlled descent of an asymmetric spacecraft in the
low-density atmosphere
DOI: 10.18287/1613-0073-2016-1638-610-621
75. J. Mau.....622-635
On reverse engineering of human body system
DOI: 10.18287/1613-0073-2016-1638-622-635
76. Ju.G. Nekhozhina, V.A. Sobolev.....636-641
Andronov-hopf's bifurcation in a dynamic model of cell
population
DOI: 10.18287/1613-0073-2016-1638-636-641

77. V.N. Nesterov.....642-649
 Mathematical modeling of complex multicomponent
 movements and optical method of measurement
 DOI: 10.18287/1613-0073-2016-1638-642-649
78. M.E. Semenov, A.M. Solovyev.....650-657
 Stabilization of elastic inverted pendulum with hysteresis
 DOI: 10.18287/1613-0073-2016-1638-650-657
79. G.R. Shamsutdinova, S.V. Viktorov.....658-663
 Solution of the inverse problem for cylindrical inclusion
 fragment form definition
 DOI: 10.18287/1613-0073-2016-1638-658-663
80. E.A. Shchepakina.....664-673
 Three scenarios for changing of stability in the dynamic
 model of nerve conduction
 DOI: 10.18287/1613-0073-2016-1638-664-673
81. M.F. Stepanov, A.M. Stepanov, M.A. Pakhomov, A.R. Salikhova,
 L.S. Mikhaylova.....674-680
 Development tools of the intellectual self-organized systems
 of automatic control
 DOI: 10.18287/1613-0073-2016-1638-674-680
82. O.S. Sushkova, A.A. Morozov, A.V. Gabova.....681-690
 Development of a method of analysis of EEG wave packets
 in early stages of Parkinson's disease
 DOI: 10.18287/1613-0073-2016-1638-681-690
83. S.I. Tkachenko, V.V. Salmin, I.S. Tkachenko, S.L. Safronov,
 I.V. Kaurov, M.D. Korovin, M.A. Ivanushkin, S.S. Volgin.....691-699
 Improving ground thermal vacuum testing for small satellites
 of the "Aist" family
 DOI: 10.18287/1613-0073-2016-1638-691-699
84. Payal Verma, S.A. Fomchenkov.....700-708
 Analytical modeling of discrimination scheme for detection
 of angular rate and acceleration for a 4-dof mems
 gyro-accelerometer
 DOI: 10.18287/1613-0073-2016-1638-700-708
85. S.A. Yudaev, D.I. Rachinskii.....709-716
 Asymptotic solution for simple biped walker model
 DOI: 10.18287/1613-0073-2016-1638-709-716

86. D. Shchepakina, M. Kavanaugh, L. Kalachev.....717-730
Modeling of ambient glutamate concentration measurement
in the mammalian nervous system
DOI: 10.18287/1613-0073-2016-1638-717-730
87. N. Firstova, E.A. Shchepakina.....731-741
Study of oscillatory processes in the one model of electrochemical
reactor
DOI: 10.18287/1613-0073-2016-1638-731-741
88. V.A. Sobolev.....742-753
Critical cases in slow/fast control problems
DOI: 10.18287/1613-0073-2016-1638-742-753
89. O.V. Vidilina, N.V. Voropaeva.....754-762
The construction of the observers for dynamic systems with
fast and slow variables
DOI: 10.18287/1613-0073-2016-1638-754-762

Data Science

90. S.Ya. Shatskikh, L.E. Melkumova.....763-768
Normality assumption in statistical data analysis
DOI: 10.18287/1613-0073-2016-1638-763-768
91. S. Ya. Shatskikh L. E. Melkumova.....769-781
Reducing the sample size when estimating conditional quantiles
DOI: 10.18287/1613-0073-2016-1638-769-781
92. V.I. Protsenko, P.G. Serafimovich, S.B. Popov, N.L. Kazanskiy.....782-787
Software and hardware infrastructure for data stream processing
DOI: 10.18287/1613-0073-2016-1638-782-787
93. N.Yu. Ilyasova, R.A. Paringer, A.V. Kupriyanov, N.S. Ushakova.....788-795
The effective features formation for the identification of regions
of interest in a fundus images
DOI: 10.18287/1613-0073-2016-1638-788-795
94. V.A. Semenova, S.V. Smirnov.....796-805
Intelligent analysis of incomplete data for building formal ontologies
DOI: 10.18287/1613-0073-2016-1638-796-805
95. D.E. Samoilov, S.V. Smirnov.....806-812
Data formation and processing in formal concept analysis:
subjective aspects
DOI: 10.18287/1613-0073-2016-1638-806-812

96. A.N. Kovartsev, D.A. Popova-Kovartseva.....	813-819
Method to assess reliability of complex software functioning	
DOI: 10.18287/1613-0073-2016-1638-813-819	
97. A.N. Kovartsev, D.A. Popova-Kovartseva, E.E. Gorshkova.....	820-827
Ternary trees usage for computational experiment data storage	
DOI: 10.18287/1613-0073-2016-1638-820-827	
98. D.E. Yablokov, V.A. Saleev.....	828-837
Universal data model for solving research problems	
DOI: 10.18287/1613-0073-2016-1638-828-837	
99. E.F. Sayfullina.....	838-842
A heuristic approach to the verification of isomorphic graphs	
DOI: 10.18287/1613-0073-2016-1638-838-842	
100.M.I. Khotilin, A.V. Blagov.....	843-850
Visualization and cluster analysis of social networks	
DOI: 10.18287/1613-0073-2016-1638-843-850	
101.I.A. Rytsarev, A.V. Blagov.....	851-856
Classification of text data from the social network Twitter	
DOI: 10.18287/1613-0073-2016-1638-851-856	
102.A.V. Yurasov, O.A. Degtiareva.....	857-863
Automated system for evaluation of texts naturalness	
DOI: 10.18287/1613-0073-2016-1638-857-863	
103.V.M. Ramzaev, I.N. Khaimovich, V.G. Chumak.....	864-872
Use of Big Data technology in public and municipal management	
DOI: 10.18287/1613-0073-2016-1638-864-872	
104.V.A. Komarov, S.A. Piyavskiy.....	873-881
Intellectual data analysis in aircraft design	
DOI: 10.18287/1613-0073-2016-1638-873-881	
105.S.D. Poletayev, S.G. Volotovskiy.....	882-887
The efficiency of optical microstructures formed on molybdenum films	
DOI: 10.18287/1613-0073-2016-1638-882-887	
106.E.I. Kolomiets.....	888-894
On the 50th birthday of Pavel G. Serafimovich	
DOI: 10.18287/1613-0073-2016-1638-888-894	
107.M.E. Burlakov, M.N. Osipov.....	895-901
Research the behavior of elements in artificial immune system for intrusion detection systems in information networks	
DOI: 10.18287/1613-0073-2016-1638-895-901	

108.V.V. Kutikova, A.V. Gaidel, A.G. Khramov.....902-908
Feature selection in the effectiveness research of a training
program for patients with the atrial fibrillation
DOI: 10.18287/1613-0073-2016-1638-902-908