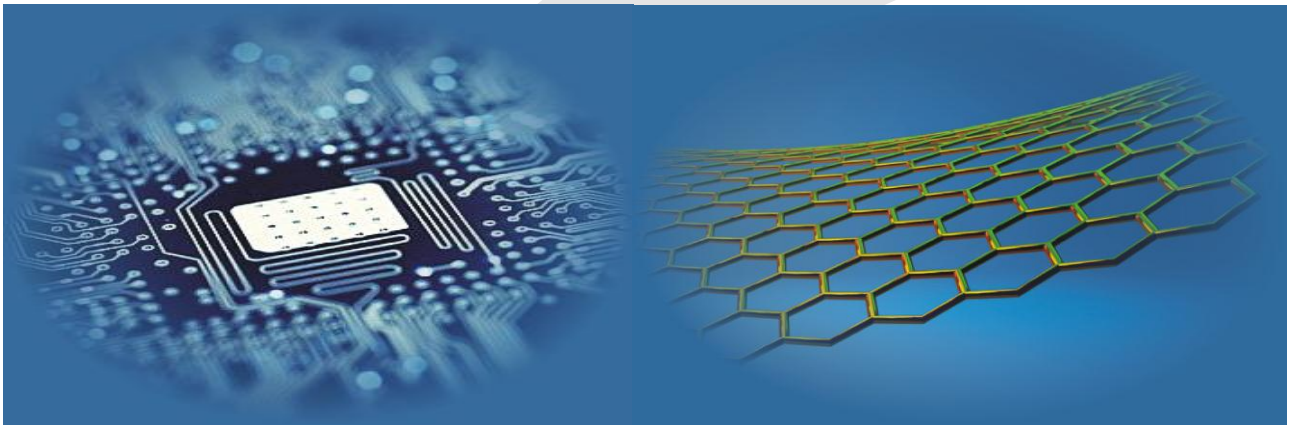
Transport and Telecommunication Institute
and
Latvian Transport Development and Education Association

Computer Modelling and New Technologies

2014 Volume 18 No 4

ISSN 1407-5806, ISSN 1407-5814 *(On-line: www.tsi.lv)*



Riga – 2014

EDITORIAL BOARD

Prof. Igor Kabashkin	**Chairman of the Board,** *Transport & Telecommunication Institute, Latvia*
Prof. Yuri Shunin	**Editor-in-Chief,** *Information Systems Management Institute, Latvia*
Prof. Adolfas Baublys	*Vilnius Gediminas Technical University, Lithuania*
Dr. Brent Bowen	*Embry-Riddle Aeronautical University, United States of America*
Prof. Olgierd Dumbrajs	*University of Latvia, Solid State Physics Institute, Latvia*
Prof. Sergey Maksimenko	*Institute for Nuclear Problem, Belarus State University, Belarus*
Prof. Vladimir Litovchenko	*V. Lashkaryov Institute of Semiconductor Physics of National Academy of Science of Ukraine, Ukraine*
Prof. Pavel D'yachkov	*Kurnakov Institute for General and Inorganic Chemistry, Russian Academy of Sciences, Russian Federation*
Prof. Stefano Bellucci	*Frascati National Laboratories – National Institute of Nuclear Physics, Italy*
Prof. Arnold Kiv	*Ben-Gurion University of the Negev, Israel*
Prof. Alytis Gruodis	*Vilnius University, Lithuania*
Prof. Michael Schenk	*Fraunhofer Institute for Factory Operation and Automation IFF, Germany*
Prof. Dietmar Fink	*University of Mexico, United Mexican States*
Prof. Ravil Muhamedyev	*International IT University , Kazakhstan*
Prof. Eugene Kopytov	*Transport & Telecommunication Institute, Latvia*
Prof. Kurt Schwartz	*Gesellschaft für Schwerionenforschung mbH, Darmstadt, Germany*
Prof. Eva Rysiakiewicz-Pasek	*Institute of Physics, Wroclaw University of Technology, Poland*
Contributing Editor	Prof. Victor Gopeyenko, *Information Systems Management Institute, Latvia*
Literary Editor	Prof. Tamara Lobanova-Shunina, *Riga Technical University, Latvia*
Technical Editor, secretary of Editorial Board	MSc Comp Nataly Burluckaya, *Information Systems Management Institute, Latvia*

Journal topics:	**Host Organization**	**Supporting Organizations**
mathematical and computer modelling computer and information technologies natural and engineering sciences operation research and decision making nanoscience and nanotechnologies innovative education	Transport and Telecommunication Institute	Latvian Transport Development and Education Association Latvian Academy of Sciences Latvian Operations Research Society

Articles should be submitted in **English**. All articles are reviewed.

EDITORIAL CORRESPONDENCE

Transport and Telecommunication Institute
1 Lomonosova, **Bld 4,** LV-1019, Riga, **Latvia**
Phone: (+371) 67100594
Fax: (+371) 67100535
E-mail: cm&nt@tsi.lv
www.tsi.lv

COMPUTER MODELLING AND NEW TECHNOLOGIES, 2014, Vol. 18, No.4
ISSN 1407-5806, ISSN 1407-5814 (on-line: www.tsi.lv)

Scientific and research journal
The journal is being published since 1996

The papers published in Journal 'Computer Modelling and New Technologies' are included in:
INSPEC (since 2010), www.theiet.org/resources/inspec/
VINITI (since 2011), http://www2.viniti.ru/
CAS Database http://www.cas.org/
EI Compendex

Copyright © Transport and Telecommunication Institute, 2014