

ISSN 1998-6939  
EISSN 2306-1707  
DOI 10.14308/ite

**MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
KHERSON STATE UNIVERSITY**

**NATIONAL ACADEMY OF SCIENCES OF UKRAINE  
INSTITUTE OF INFORMATIONAL TECHNOLOGIES AND TEACHING AIDS OF  
EDUCATION**

# **Informational Technologies in Education**

**SCIENTIFIC JOURNAL**

**Head Editor: Professor Spivakovsky O.V.**

**Scientific journal was founded in May 2007**

**21<sup>th</sup> Issue**

**Kherson – 2015**

Printed by decision of Academic Council  
of Kherson State University  
(protocol № 9 from 21.05.07)

It is ratified to print by Academic Council  
of Kherson State University  
(protocol № 2 from 22.12.14)

**Registration by SAC of Ukraine:  
Decision of the Presidium of the HAC of Ukraine of 14.04.10 p. №1-05/03**

**Editor-in-Chief**

Aleksander Spivakovsky – Kherson State University, Ukraine

**Associate Editors**

Andrey Gurzhij – National Academy of Pedagogical Sciences, Ukraine  
Vadim Ermolayev – Zaporozhye National University, Ukraine

**Editorial Assistants**

Hennadiy Kravtsov – Kherson State University, Ukraine  
Maksim Vinnik – Kherson State University, Ukraine

**Editorial stuff:**

Boris Andrievskiy – Kherson State University, Ukraine  
Valeriy Bykov – Institute of Information Technology and Means of Teaching, National  
Academy of Pedagogical Sciences, Ukraine  
Vagan Terziyan – University of Jyväskylä, Finland  
Vangalur Alagar – Concordia University, Canada  
Gary L. Pratt – Eastern Washington University, United States  
Heinrich C. Mayr – Alpen-Adria-Universität Klagenfurt, Austria  
David Camacho – Universidad Autónoma de Madrid, Spain  
Dumitru Dan Burdescu – University of Craiova, Romania  
Alexander Letichevsky – Glushkov Institute of Cybernetics, Ukraine  
Leo Van Moergestel – Utrecht University of Applied Sciences, Netherlands  
Michael Lvov – Kherson State University, Ukraine  
Natalia Morze – Borys Grinchenko Kiev University, Ukraine  
Mykola Nikitchenko – Taras Shevchenko National University of Kyiv, Ukraine  
Valentine Odintsov – Kherson State University, Ukraine  
Liubov Petukhova – Kherson State University, Ukraine  
Sergey Rakov – National Pedagogical Dragomanov University, Ukraine  
Yelena Sagan – Kherson State University, Ukraine  
Oleg Spirin – Institute of Information technologies and Teaching Aids National Academy  
of Pedagogical Sciences, Ukraine  
Stavros Demetriadis – Aristotle University of Thessaloniki, Greece  
Yuriy Trius – Cherkasy State Technological University, Ukraine  
Philipp Lahire – University of Nice Sophia-Antipolis, France  
Valentina Sharko – Kherson State University, Ukraine

Informacion technologies in education: Scientific journal. Issue 21. – Kherson: KSU, 2015. – 120 p.

Editorial board can edit and reduce articles. Authors opinions cannot always agreed with editorial board's point of view. Authors are responsible for authenticity of facts, quotations, names, places, and other information.

The certificate of state registration of printed mass media Serial number KB № 18045-6895ПП.

The link of digest <http://ite.kspu.edu>

Збірник зареєстровано та представлено у бібліометричних БД та системах: Ulrich's Periodicals Directory, WorldCat, CrossRef, ПІНЦ, Index Copernicus International S.A., Реферативна база даних "Україніка наукова", Universal Impact Factor, CiteFactor, Directory Of Research Journal Indexing, Google Scholar, Advanced Sciences Index (ASI), Scientific Journal Impact Factor (SJIF)

Address of editorial stuff: Kherson State University  
40 rokiiv Zhovtnya Street, 27, Kherson, Ukraine, 73000.