

13th International Multi-Conference on Society, Cybernetics and Informatics (IMSCI 2019)

Orlando, Florida, USA
6 – 9 July 2019

Volume 1 of 2

Editors:

**Nagib Callaos
Bruce Peoples
Belkis Sanchez**

**Andres Tremante
Michael Savoie**

ISBN: 978-1-5108-9696-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2019) by International Institute of Informatics and Systemics (IIS)
All rights reserved.

Printed with permission by Curran Associates, Inc. (2020)

For permission requests, please contact International Institute of Informatics and Systemics (IIS)
at the address below.

International Institute of Informatics and Systemics (IIS)
13750 West Colonial Dr.
Suite 350-408
Winter Garden, Florida 34787
USA

Contact-us@iis.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

VOLUME I

CONTENTS

Contents	i
Case Studies and Methodologies	
Bernikova, Olga; Redkin, Oleg (Russian Federation): "Digital Humanities: The Case Study of Arabic Dialectology"	1
Briffaut, Jérémy; Deneuville, Jean-Christophe (France): "ATELYN: A Traceability and Security Case Study"	7
Corallo, Angelo; Latino, Maria Elena; Menegoli, Marta; Nuzzo, Biagio (Italy): "A Process-Based Approach to Collect Food Information to Satisfy Consumer Needs Through a Voluntary Traceability Information System, an Organic Olive Oil Case Study"	13
Lander, Howard; Alpert, Kathryn; Rajasekar, Arcot; Turner, Jessica; Wang, Lei (USA): "Data Discovery for Case Studies: The DataBridge for Neuroscience Project"	19
Nikolarea, Ekaterini (Greece): "Cognitive Problem Solving Tools in a <i>Glocalized</i> Academic Environment: Two Cases Studies in a Non-English Academic Context"	26
eCommunities	
Safieddine, Fadi *; Kadry, Seifedine **; Masri, Wassim ** (* UK, ** Lebanon): "Misinformation on Social Media: The Development of User Behavior Survey"	33
Education and Training Systems and Technologies (EISTA 2019)	
Kiaulakis, Arvydas; Vilitienė, Tatjana; Šarka, Vaidotas (Lithuania): "Public Authorities' Attitude and Perception Regarding Use of BIM for Information Management"	41
Redkin, Oleg; Bernikova, Olga (Russian Federation): "Learning Foreign Language Through Cultural Context in the Case of Arabic"	47
Educational Research, Theories, Practice and Methodologies (EISTA 2019)	
Garcia-Quesada, Alfredo (Peru): "A Proposal for Ethics in Engineering Inspired by MacIntyre's Ethics of Virtue at a Peruvian University"	52
Liu, Chih-Che (Taiwan): "Gender Differences in Occupational Stress Among Interns at One Private University in Southern Taiwan"	56
Tagarev, Nedko (Bulgaria): "Role of Case Study Analyses in Education of Cybersecurity Management"	61

eHealth

Brăileanu, Patricia I. *; Simion, Ionel *; Bou-Saïd, Benyebka **; Ianoș, Maria Gratiela *; Tayot, Olivier **; Bordet, Bertrand ** (* Romania, ** France): "F.E.A. Study of a Patient's Prosthetic Hip by Using Reverse Engineering Method" 65

Impact of Informatics and Cybernetics on Societies and Cultures

Dalko, Viktoria; Wang, Michael H. (USA): "High-Frequency Trading: Potential Order-Based Monopoly?" 71

Information Society Technologies

Orantes-Jiménez, Sandra-Dinora; Cruz-Cortés, Nareli (Mexico): "A Study of the Security and Privacy of Information in Big Data" 76

Tidwell, Craig (USA): "The Influence of Multi-Touch Interfaces on Human Collaboration: Solving Complex Problems in a Group Environment" 82

Application of Education Technologies

Rios Navarro, Dario; Acon Matamoros, Ariana (Costa Rica): "Proposal for the Implementation of a Massive Open Online Course (MOOC) with the Open eDX Platform for the Computer Engineering Career of the UNED, Costa Rica" 88

Integrating Research, Education, and Problem Solving: IREPS 2019

Ilunga, Masengo (South Africa): "Using Osmosis Pressure Merlot Multimedia to Enhance On-Line Learning in Wastewater Treatment Technology IV Module Offered by the University of South Africa" 93

Ilunga, Masengo (South Africa): "Using an Online Learning Object for pH Determination in Wastewater Treatment Technology IV Module Taught by the University of South Africa" 99

Rumão, Valdenice; Maciel, Flaviana; Acioly, Mariana; Souza Leão, Caio; Martins, Carolina (Brazil): "Basic Care to Patients with Spinal Cord Injury: A Virtual Course for Patients, Caregivers and Health Professionals" 104

Authors Index

111

13th International Multi-Conference on Society, Cybernetics and Informatics (IMSCI 2019)

Orlando, Florida, USA
6 – 9 July 2019

Volume 2 of 2

Editors:

**Nagib Callaos
Bruce Peoples
Belkis Sanchez**

**Andres Tremante
Michael Savoie**

ISBN: 978-1-5108-9696-3

VOLUME II

CONTENTS

Contents	i
 Applications of Information and Communication Technologies in Education and Training	
Kubicek, Amadeus; Al Qaisi, Lamees; Brooks, Michelle; DelGrosso, Bill (United Arab Emirates): "Integrating E-Learning and Classroom Learning in the Gulf Cooperation Council (GCC) States: A Conceptual Framework of the Relationship Between Expatriate Teachers, ICT Orientation, Cultural Intelligence (CQ) and Role Stressors"	N/A
McDowell, Andrew; Cutting, David; Sage, Paul; Allen, Angela; McGowan, Aidan (UK): "Backchannel in Large Learner Cohorts – Does Anonymity Matter? A Comparative Study."	5
Papadopoulou, Melpomeni (France): "Flip the Flipped Classroom. Experiential Reason and New Technologies in Adults' Education."	9
Rezaev, Andrey V.; Yablonskiy, Piotr K. (Russian Federation): "Artificial Intelligence in Medicine: Preparing for the Confirmed Inevitable. Theoretical and Methodological Considerations"	15
 Education and Training Systems and Technologies	
Acioly, Mariana; Santos, Thalita; Souza Leão, Caio; Aguiar, Luiz; Valença, Marcelo; Martins, Carolina (Brazil): "Use of a Hybrid Image Archiving and Communication System in a Tertiary Cardio-Neuro Health Unit"	19
Ilyas, Mohammad (USA): "Evolution of Higher Education in USA and Role of Information and Communication Technologies"	24
Miah, Muhammed (USA): "Providing Hands-On Experience Using RapidMiner in Undergraduate Data Mining Class: Lessons Learned"	29
Santos, Thalita; Souza, Maria Fernanda; Maciel, Flaviana; Acioly, Mariana; Rumão, Valdenice; Martins, Carolina (Brazil): "Best Practices in the Prevention and Management of Phlebitis: A Virtual Course for Health Professionals"	34
 Education in Science, Technology, Engineering and Mathematics	
Behnke, Craig; Budnik, Mark M. (USA): "A Multidisciplinary Module to Improve Students' Brainstorming Sessions and Teach Students How to Better Lead the Brainstorming Process"	40
Budnik, Mark (USA): "A Staggered-Start Model for Undergraduate Engineering Laboratory Sessions"	43

Cutting, David; McDowell, Andrew; Allen, Angela; Anderson, Neil; Collins, Matthew; Sage, Paul; McGowan, Aidan (UK): "Early Student Access to Automated Summative Marking Tools for Self Learning"	45
Montoya, Jorge (Colombia): "The Role of Representations in an Inductive Deductive Inductive Approach in Engineering: Perspective from Mechanics of Materials"	50
Educational Research, Theories, Practice and Methodologies	
Al Chibani, Wessam (Lebanon): "Investigating the Efficiency of Implementing Active Learning Strategies in Higher Education Courses in Lebanon: A Multiple Case Study"	56
Das, Dillip Kumar; Woyessa, Yali E. (South Africa): "Exploring the Relevance of Problem Based Learning in the Universities of Technology in South Africa"	62
Galvis, Rosa I.; Ávila, Claudia; Sánchez, Sonia L. (Colombia): "The Evaluation of Learning, an Exercise in Reflection and Accompaniment"	68
Greiner, Christian; Peisl, Tom (Germany): "Design Thinking in Entrepreneurship Textbooks – Entrepreneurial Education Issues between Requirements and Reality"	74
Hendel, Russell Jay (USA): "Several Interdisciplinary Applications to UDL"	80
Hwang, Yunhan (South Korea): "Goals for Elementary Schooling Perceived by Prospective, Newly Appointed and Veteran Elementary Teachers"	N/A
Ji, Fu-Jun (China): "Study on the Learning Effect of Channel Effect in Multimedia Design"	92
Pacholík, Viktor (Czech Republic): "Institutional Education of Children under Three Years - View of Czech Parents and Teachers"	98
Sage, Paul; Stewart, Darryl; Hanna, Philip; Allen, Angela; McDowell, Andrew; Cutting, David (UK): "Early Intervention in Programming Education: Unlocking Potential through Peer-Mentoring and Reflective Practice"	104
Sharonova, Svetlana; Avdeeva, Elena (Russian Federation): "Transformation of Educational Landscape in the Era of Smart Society"	110
Education and Training Systems and Technologies	
Nigim, Khaled; Nantais, Lois (Canada): "Student Engagement in Capstone Projects Through Integration of Technologies, Project Assessment and Academic Integrity"	116
Education in Science, Technology, Engineering and Mathematics	
Bonora, Laura; Martelli, Francesca; Marchi, Valentina; Vagnoli, Carolina (Italy): "Gamification as Educational Strategy for STEM Learning: DIGITgame Project a Collaborative Experience Between Italy and Turkey High Schools Around the Smartcity Concept"	N/A
Authors Index	129