Contents

Examining the Relationships between Foreign Language Anxiety and Attention during Conversation Tasks...................... 1
Hao-Cheng Chang, Wei-Chieh Fang, Bo-Han Yang, Bo-Ru Luo, Sie Wai Chew and Nian-Shing Chen

A review of using Augmented Reality in Education from 2011 to 2016......................................................... 13
Peng Chen, Xiaolin Liu, Wei Cheng and Ronghuai Huang

A New MOOCs’ Recommendation Framework based on LinkedIn Data ........................................................... 19
Kais Dai, Ana Fernández Vilas and Rebeca P. Díaz Redondo

Towards a Smart University through the Adoption of a Social e-Learning Platform to Increase Graduates’ Employability........... 23
Maria-Iuliana Dascalu, Constanta Nicoleta Bodea, Alin Moldoveanu and George Dragoi

A 3-D Educational Game for enhancing learners’ performance in A star Algorithm ................................................. 29
Mouna Denden, Fathi Essalmi and Ahmed Tlili

A 3D Learning Game for Representing Artificial Intelligence Problems .......................................................... 33
Sonia Derwich and Fathi Essalmi

Evaluation of online assignments and quizzes using Bayesian Networks .............................................................. 39
Yamna Ettarres

Mindcraft : A novel mind mapping tool under Moodle platform ...... 45
Yamna Ettarres, Hedi Akrout, Oussama Limam and Brahim Dagdoug
Assessing Learners’ Progress in a Smart Learning Environment using Bio-Inspired Clustering Mechanism ........................................ 49
Kannan Govindarajan, David Boulanger, Jérémie Seanosky, Jason Bell, Colin Pinnell, Vivekanandan Suresh Kumar and Kinshuk

Toward the selection of the appropriate e-learning personalization strategy ................................................................. 59
Refka Haddaji, Fathi Essalmi, Salem Hamzaoui and Ahmed Tlili

A Conceptual Framework for a Smart Learning Engine .................. 69
Ronghuai Huang, Jing Du, Ting-wen Chang, Michael Spector, Yan Zhang and Aofan Zhang

Investigation of Key School-related Indicators Influencing ICT in K-12 Education .................................................. 73
Huang Ronghuai and Liu Xiaolin

Towards a Reference Architecture for Smart and Personal Learning Environments .............................................. 79
Erik Isaksson, Ambjörn Naeve, Paul Lefrère and Fridolin Wild

The ALECSO Smart Learning Framework ...................................... 89
Mohamed Jemni and Mohamed Koutheair Khribe

Learning to Analyze Medical Images: A Smart Adaptive Learning Environment for an Ill-Defined Domain ................. 99
Stuart Johnson and Osmar R. Zaiane

An Architecture for Smart Lifelong Learning Design ......................... 109
Konstantinos Karoudis and George D. Magoulas

Relevant Metrics for Facial expression recognition in Intelligent Tutoring System ........................................... 117
Jihen Khalfallah and Jaleleddine Ben Hadj Slama

Toward an Adaptive Architecture for Integrating Mobile Affective Computing to Intelligent Learning Environments ........... 121
Maha Khemaja and Aroua Taamallah

Requirements Engineering for Pervasive Games Based Smart Learning Systems ......................................................... 127
Yemna Mejbri, Maha Khemaja and Kaouther Raies

MOOCs Recommender System: A Recommender System for the Massive Open Online Courses. ................... 137
Henda Chorfi Ouertani and Monerah Mohammed Alawadh
Integrating a Peer Evaluation Module in a Social Learning Platform
Elvira Popescu and Laura-Maria Petrosanu .......................... 141

The Effects of Perceived Innovation Game Attributes by Learners on Learning Performance in a Game-Based Achievement Learning System
Benazir Quadir, Jie Chi Yang, Nian-Shing Chen and Mei Jen Audrey Shih .......................... 151

Automatic Extraction of Smart Game Based Learning Design Expertise: An Approach Based on Learning Ontology
Kaouthier Raies, Maha Khemaja and Yemna Mejbri .......................... 161

A Study On Two Hint-level Policies in Conversational Intelligent Tutoring Systems
Vasile Rus, Rajendra Banjade, Nobal Niraula, Elizabeth Gire and Donald Franceschetti .......................... 171

Dialogue Act Classification In Human-to-Human Tutorial Dialogues
Vasile Rus, Nabin Maharjan and Rajendra Banjade .......................... 183

Towards Applying Keller’s ARCS Model and Learning by doing strategy in Classroom Courses
Ahmed Tlili, Fathi Essalmi, Mohamed Jemni and Kinshuk .......................... 187

English Vocabulary Learning Performance and Brainwave Differences: The Comparison Between Gesture-Based and Conventional Word-card
Guan-Ying Wu, I-Ling Cheng, Sie Wai Chew, Chun-Yu Zhu, Chia-Ning Hsu and Nian-Shing Chen .......................... 197

The Effect of Children Learning English Vocabulary through a Gesture-Based System
Chun-Yu Zhu, I-Ling Cheng, Sie Wai Chew, Guan Ying Wu, Chia-Ning Hsu and Nian-Shing Chen .......................... 207

Online Test System to Reduce Teachers’ Workload for Item and Test Preparation
Ebenezer Aggrey, Rita Kuo, Maiga Chang and Kinshuk .......................... 213

Breadth and Depth of Learning Analytics
David Boulanger, Jeremie Seanosky, Rebecca Guillot, Vivekanandan Suresh Kumar and Kinshuk .......................... 219
Educational Resource Information Communication API (ERIC API): The Case of Moodle and Online Tests System Integration .................................................. 225 Cheng-Li Chen, Maiga Chang and Hung-Yi Chang

The Academic Analytics Tool: Workflow and Use Cases ............... 231 Tamra Ross, Ting-Wen Chang, Cindy Ives, Nancy Parker, Andrew Han and Sabine Graf
Innovations in Smart Learning
2017, XIV, 237 p. 68 illus., 57 illus. in color., Hardcover
ISBN: 978-981-10-2418-4