Preface

This book contains a selection of papers accepted for presentation and discussion at the Europe, Middle East and North Africa Conference on Technology and Security to Support Learning 2016 (EMENA-TSSL'16). This conference had the support of the University Mohamed First Oujda, Morocco, AISTI (Iberian Association for Information Systems and Technologies/Associação Ibérica de Sistemas e Tecnologias de Informação), and School of Engineering Polytechnic of Porto, Portugal. It took place at in city of Saïdia, Oujda, Morocco during October 3–5, 2016.

EMENA-TSSL'16 conference has two aims; first it provides the ideal opportunity to bring together professors, researchers and high education students of different disciplines, discuss new issues, and discover the most recent developments, researches and trends on information and communication technologies, emerging technologies and security to support in learning. The second goal is focusing on to boost future collaboration and cooperation between researchers and academicians from Europe Middle East and North Africa universities (EMENA).

The Program Committee of EMENA-TSSL'16 was composed of a multidisciplinary group of experts and those who are intimately concerned with information and communication, e-learning, and security. They have had the responsibility for evaluating, in a 'blind-review' process, the papers received for each of the main themes proposed for the conference: (A) Online Education; (B) Emerging Technologies in Education; (C) Artificial Intelligence in Education; (D) Gamification and Serious games; (E) Network & Web Technologies Applications; (F) Online experimentation and Virtual Laboratories; (G) Multimedia Systems and Applications; (H) Security and Privacy; (I) Multimedia, Computer Vision and Image Processing; (J) Cloud, Big Data Analytics and Applications; (K) Human-Computer Interaction; (L) Software Systems, Architectures, Applications and Tools; (M) Online Languages and Natural Language Processing (N) E-content Development, Assessment and Plagiarism; (O) Secure E-Learning Development and Auditing; (P) Internet of Things and Wireless Sensor Networks.

EMENA-TSSL'16 received contributions from 37 countries around the world. The papers accepted for presentation and discussion at the conference are published by Springer (this book) and by EMENA-TSSL'16 (another e-book) and will be

submitted for indexing by ISI, EI-Compendex, SCOPUS, DBLP and/or Scholar Google, among others. Extended versions of selected best papers will be published in relevant journals, including SCI/SSCI and Scopus indexed journals.

We acknowledge all who contributed to the staging of EMENA-TSSL'16 (authors, committees, and sponsors); their involvement and support is very much appreciated.

Saïdia, Oujda   Álvaro Rocha
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