

**Published by**  
IATED Academy  
iated.org

**INTED2017 Proceedings**  
11th International Technology, Education and Development Conference  
March 6th-8th, 2017 — Valencia, Spain

**Edited by**  
L. Gómez Chova, A. López Martínez, I. Candel Torres  
IATED Academy

**ISBN: 978-84-617-8491-2**  
**ISSN: 2340-1079**  
**Depósito Legal: V-369-2017**

Book cover designed by  
J.L. Bernat

All rights reserved. Copyright © 2017, IATED

The papers published in these proceedings reflect the views only of the authors. The publisher cannot be held responsible for the validity or use of the information therein contained.

**INTED2017 COMMITTEE AND ADVISORY BOARD**

Adam Myers	UNITED STATES	Jose F. Cabeza	SPAIN
Agustín López	SPAIN	Jose Luis Bernat	SPAIN
Ali Ibrahim	UNITED ARAB EMIRATES	José Luis Solleiro Rebolledo	MEXICO
Altynbek Sharipbay	KAZAKHSTAN	Josephine Butler	UNITED ARAB EMIRATES
Amparo Girós	SPAIN	Kari Haavaag Voldsund	NORWAY
Ana Neves	PORTUGAL	Keith Buckley	UNITED STATES
Ana Tomás	SPAIN	Kenneth Spiegel	UNITED STATES
Anja Docter	NETHERLANDS	Khondkar Islam	UNITED STATES
Antonio García	SPAIN	Lenka Klimplová	SWEDEN
Asli Sungur Ergenoglu	TURKEY	Li Jin	UNITED KINGDOM
Brigit Kolen	NETHERLANDS	Lorena López	SPAIN
Ceyhan Cigdemoglu	TURKEY	Luis Gómez Chova	SPAIN
Chelo González	SPAIN	M <sup>a</sup> Jesús Suesta	SPAIN
Claire Fox	UNITED KINGDOM	Mangala Tawde	UNITED STATES
Cláudia França	BRAZIL	Margarida Romero	CANADA
Cristina Lozano	SPAIN	Maria Porcel	SPAIN
Danielle Morin	CANADA	Marian Stoltz-Loike	UNITED STATES
David Martí	SPAIN	Mark Sarvary	UNITED STATES
Diana Dias	PORTUGAL	Maurice Danaher	UNITED ARAB EMIRATES
Diane Powles	UNITED KINGDOM	Mauro Figueiredo	PORTUGAL
Diogo Casanova	UNITED KINGDOM	Mónica Fernández	SPAIN
Dirk Verbeek	NETHERLANDS	Nathalie Gettliffe	FRANCE
Edita Butrime	LITHUANIA	Norma Barrachina	SPAIN
Eduardo Olguin	CHILE	Olga Teruel	SPAIN
Eduardo Penalosa	MEXICO	Panagiotis Fotaris	UNITED KINGDOM
Eladio Duque	SPAIN	Patrick Fargier	FRANCE
Elena Ors	SPAIN	Patti Simone	UNITED STATES
Elizabeth Romero	UNITED STATES	Paul Smith	UNITED KINGDOM
Emmanuel Varouchas	GREECE	Paulino Silva	PORTUGAL
Eric Kuo-Hao Tang	TAIWAN	Pavel Nastase	ROMANIA
Fabiana Biasini	ITALY	Peter Haber	AUSTRIA
Gabriela Kugler	GERMANY	Ruth Kerr	ITALY
Giovanni Torrissi	BELGIUM	Selma Koc	UNITED STATES
Helen Boulton	UNITED KINGDOM	Serena St. Clair	UNITED STATES
Iain Weir	UNITED KINGDOM	Sergio Pérez	SPAIN
Ignacio Ballester	SPAIN	Simon Cross	UNITED KINGDOM
Ignacio Candel	SPAIN	Sirkku Männikkö Barbutiu	SWEDEN
Iván Martínez	SPAIN	Staffan Karp	SWEDEN
James Sobredo	UNITED STATES	Stuart Shaw	UNITED KINGDOM
James Sunney Quaicoe	ESTONIA	Sune Weile	DENMARK
Javier Domenech	SPAIN	Valentina Terzieva	BULGARIA
Javier Martí	SPAIN	Valérie Lavergne Boudier	FRANCE
Jim Playfoot	UNITED KINGDOM	Victor Fester	NEW ZEALAND
Jin Feng	UNITED STATES	Wendy Gorton	UNITED STATES
Joanna Lees	FRANCE	Xavier Lefranc	FRANCE

## CONFERENCE SESSIONS

### ORAL SESSIONS, 6th March 2017

Educational Software Experiences  
Social Media in Education (1)  
Collaborative and Problem Based Learning (1)  
Teachers Development: Online & Blended Learning  
Experiences in Math Education  
Digital Competence for Lifelong Learning  
ICT in Special Needs Education  
Technology in Engineering Education

Videos for Learning  
Blended Learning (1)  
Collaborative and Problem Based Learning (2)  
ICT Skills and Competencies among Teachers (1)  
Technology in STEM Education  
Quality Assurance & Accreditation  
Challenges of an Inclusive Classroom  
Experiences in Engineering Education (1)  
Preparing Pre-Service Teacher-Librarians for a Technological Environment

Learning Analytics and Adaptive Learning  
e-Assessment  
The other side of the Flipped Classroom  
ICT Skills and Competencies among Teachers (2)  
Experiences in STEM Education  
International Experiences in Higher Education  
New Trends in Humanities Education  
Experiences in Architecture and Civil Engineering

Technology Enhanced Education to Adults and Seniors  
Assessment of Student Learning  
Student Support & Tutoring  
Pre-service Teacher Experiences  
Teachers Experiences in STEM (1)  
Work Integrated Learning & Internship Programs  
ICT Enhanced Language Learning  
Experiences in Computer Science Education

### POSTER SESSIONS, 6th March 2017

Emerging Technologies in Education

Pedagogical Innovations and New Educational Trends

**ORAL SESSIONS, 7th March 2017**

Quality Assurance in e-Learning  
Learning Management Systems & Virtual Learning Environments  
Serious and Educational Games  
Competence Evaluation  
Education and Globalization  
Enhancing Learning and Academic Performance  
Experiences in Primary & Early Education  
Pedagogical & Didactical Innovations (1)  
Experiences in Engineering Education (2)

e-Learning Experiences  
MOOCs: Massive Open Online Courses  
Virtual and International Collaboration  
New Trends in Higher Education  
Leadership & University Management  
University-Industry Collaboration  
Teachers Experiences in STEM (2)  
Pedagogical & Didactical Innovations (2)

Flipped Learning (1)  
Social Media in Education (2)  
Learning Coding and its Applications  
New Trends and Experiences in Lifelong Learning  
Experiences in Multicultural Education  
Entrepreneurship Education  
Pedagogical Innovations in Foreign Languages  
Experiences in Health Sciences Education

Flipped Learning (2)  
Technological Issues in Education (1)  
Games and Simulations Experiences  
Lifelong and Adult Learning  
Intercultural and Diversity Issues in Education  
New Challenges for the Higher Education Area  
Language Learning Innovations  
Technology in Health Sciences Education

Blended Learning (2)  
New Trends in MOOCs and Distance Learning  
Technological Issues in Education (2)  
Generic Skills and their Development  
Experiences in Education for Disadvantaged Students  
Employability Issues and Trends  
New Challenges in Language Learning  
Experiences in Business Education

**POSTER SESSIONS, 7th March 2017**

Experiences in Education

Global Issues in Education and Research

**VIRTUAL SESSIONS**

Apps for education  
Augmented Reality  
Barriers to Learning  
Blended Learning  
Collaborative and Problem-based Learning  
Competence Evaluation  
Computer Supported Collaborative Work  
Curriculum Design and Innovation  
Digital divide and acces to internet  
Diversity issues and women and minorities  
E-content Management and Development  
e-Learning  
Education and Globalization  
Education in a multicultural society  
Educational Research Experiences  
Educational Software and Serious Games  
Enhancing learning and the undergraduate experience  
Ethical issues in Education  
Evaluation and Assessment of Student Learning  
Experiences in STEM Education  
Flipped Learning  
Impact of Crisis on Education  
Impact of Education on Development  
Inclusive Learning  
International Projects  
Language Learning Innovations  
Learning and Teaching Methodologies  
Learning Experiences in Primary and Secondary School  
Lifelong Learning  
Links between Education and Research  
Mobile learning  
New projects and innovations  
New Trends in the Higher Education Area  
Organizational, legal and financial issues  
Pedagogical & Didactical Innovations  
Pre-service teacher experiences  
Quality assurance in Education  
Research Methodologies  
Research on Technology in Education  
Student Support in Education  
Technological Issues in Education  
Technology-Enhanced Learning  
Tutoring and Coaching  
University-Industry Collaboration  
Virtual Universities  
Vocational Training