

# EDULEARN<sup>19</sup>

**11TH INTERNATIONAL CONFERENCE  
ON EDUCATION AND NEW LEARNING  
TECHNOLOGIES**

**PALMA (SPAIN)  
1ST - 3RD OF JULY, 2019**



## CONFERENCE PROCEEDINGS



**EDULEARN<sup>19</sup>**

---

**CONFERENCE  
PROCEEDINGS**

**Published by**  
IATED Academy  
iated.org

**EDULEARN19 Proceedings**  
11th International Conference on Education and New Learning Technologies  
July 1st-3rd, 2019 — Palma, Mallorca, Spain

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

ISBN: 978-84-09-12031-4  
ISSN: 2340-1117  
Depósito Legal: V-1702-2019

Book cover designed by  
J.L. Bernat

All rights reserved. Copyright © 2019, 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.

## EDULEARN19 COMMITTEE AND ADVISORY BOARD

<i>Agustín López</i>	SPAIN	<i>Juanan Herrero</i>	SPAIN
<i>Alexander Mikroyannidis</i>	UNITED KINGDOM	<i>Keren Levy</i>	ISRAEL
<i>Amparo Girós</i>	SPAIN	<i>Linda Pospisilova</i>	CZECH REPUBLIC
<i>Ana Lucas</i>	PORTUGAL	<i>Lorena López</i>	SPAIN
<i>Ana Paula Lopes</i>	PORTUGAL	<i>Louise Robson</i>	UNITED KINGDOM
<i>Ana Tomás</i>	SPAIN	<i>Lucilla Crosta</i>	UNITED KINGDOM
<i>Anamarija Štefić</i>	CROATIA	<i>Luis Gómez Chova</i>	SPAIN
<i>Anastasios Economides</i>	GREECE	<i>M<sup>a</sup> Jesús Suesta</i>	SPAIN
<i>Andre Blondin</i>	CANADA	<i>Manuel Costa</i>	PORTUGAL
<i>Andrew Youde</i>	UNITED KINGDOM	<i>Manuel Gericota</i>	PORTUGAL
<i>Anemona Peres</i>	POLAND	<i>Marco Arrigo</i>	ITALY
<i>Anna Aurora Battaglia</i>	UNITED KINGDOM	<i>Marek Jaszczur</i>	POLAND
<i>Antonio García</i>	SPAIN	<i>Margaret Ferrara</i>	UNITED STATES
<i>Beryl Pittman</i>	UNITED STATES	<i>Maria Porcel</i>	SPAIN
<i>Bettina Fuhrmann</i>	AUSTRIA	<i>Marion Milton</i>	AUSTRALIA
<i>Boza Tasic</i>	CANADA	<i>Martina Bode</i>	UNITED STATES
<i>Charanjit Kaur</i>	AUSTRALIA	<i>Mary Benedetti</i>	UNITED STATES
<i>Chelo González</i>	SPAIN	<i>Michelle Rosser-Majors</i>	UNITED STATES
<i>Chiew Hong Ng</i>	SINGAPORE	<i>Michiko Toyama</i>	JAPAN
<i>Craig Bartle</i>	UNITED KINGDOM	<i>Miguel Peiró</i>	SPAIN
<i>Cristina Muntean</i>	IRELAND	<i>Mohamed Zarouk</i>	PORTUGAL
<i>Cristina Sin</i>	PORTUGAL	<i>Nathalie Cazaux</i>	IRELAND
<i>Crystal Bickford</i>	UNITED STATES	<i>Nello Scarabottolo</i>	ITALY
<i>Danica Vidotto</i>	CANADA	<i>Norma Barrachina</i>	SPAIN
<i>David Martí</i>	SPAIN	<i>Patricia Gamboa</i>	PORTUGAL
<i>Dorian Cojocar</i>	ROMANIA	<i>Peter Haber</i>	AUSTRIA
<i>Eladio Duque</i>	SPAIN	<i>Pietro Ragni</i>	ITALY
<i>Elena Savova</i>	BULGARIA	<i>Radel Ben-Av</i>	ISRAEL
<i>Gabriel-Miro Muntean</i>	IRELAND	<i>Rebecca Allen</i>	UNITED STATES
<i>Gemma Piercy</i>	NEW ZEALAND	<i>Riccardo Mazza</i>	SWITZERLAND
<i>Georgios Kouroupetroglou</i>	GREECE	<i>Rodica Silvia Stan</i>	ROMANIA
<i>Hanna-Riitta Kymäläinen</i>	FINLAND	<i>Sami Ammar</i>	CANADA
<i>Helen Gadegaard</i>	DENMARK	<i>Sergio Pérez</i>	SPAIN
<i>Helen Reddy</i>	UNITED KINGDOM	<i>Sofie Van Hoecke</i>	BELGIUM
<i>Ignacio Ballester</i>	SPAIN	<i>Soula Mitakidou</i>	GREECE
<i>Ignacio Candel</i>	SPAIN	<i>Stefano Menon</i>	ITALY
<i>Ilana Lavy</i>	ISRAEL	<i>Stéphanie Looser</i>	SWITZERLAND
<i>Iman Osta</i>	LEBANON	<i>Stewart Bibby</i>	UNITED KINGDOM
<i>Iván Martínez</i>	SPAIN	<i>Teemu Patala</i>	FINLAND
<i>Jana Bérešová</i>	SLOVAKIA	<i>Teresa Cardoso</i>	PORTUGAL
<i>Javier Domenech</i>	SPAIN	<i>Thomas Rachfall</i>	GERMANY
<i>Javier Martí</i>	SPAIN	<i>Trayan Iliev</i>	BULGARIA
<i>Jeroen Lievens</i>	BELGIUM	<i>Victor Fester</i>	NEW ZEALAND
<i>Joanna Lees</i>	FRANCE	<i>Wendy Gorton</i>	UNITED STATES
<i>Jose F. Cabeza</i>	SPAIN	<i>Xavier Lefranc</i>	FRANCE
<i>Jose Luis Bernat</i>	SPAIN	<i>Xema Pedrós</i>	SPAIN
<i>Josipa Matotek</i>	CROATIA	<i>Yazid Benchabane</i>	UNITED ARAB EMIRATES

## CONFERENCE SESSIONS

### ORAL SESSIONS, 1st July 2019

Massive Open Online Courses (MOOC)  
Effective Pedagogical Practices  
ICT & Digital Skills for Educators (1)  
Foreign Language Learning  
Vocational Education  
Ethical Issues in Education  
Design Thinking and Creativity  
Quality Assurance and Accreditation  
Health Sciences Education

Virtual Reality and 3D Experiences  
Flipped Learning (1)  
ICT & Digital Skills for Educators (2)  
Language Learning Technologies  
Informal Learning  
Gender Lensing in Academia  
Team Based Learning  
Internationalization in Higher Education  
Nursing Educational Experiences

Virtual Learning Experiences in Higher Education  
m-Learning & Personal Learning Environments  
Professional Development of Teachers (1)  
English for Special Purposes  
Up2U, Learning from Learners  
Sustainability in Higher Education  
Project and Problem Based Learning  
Entrepreneurship Education  
Programming and Coding Skills (1)

Learning Analytics  
Flipped Learning (2)  
Pre-service Teacher Experiences  
Language Learning Experiences  
Student Support in Higher Education  
Active Learning in Engineering Education  
Active Learning  
University-Industry Cooperation  
Programming and Coding Skills (2)

### POSTER SESSIONS, 1st July 2019

New Trends in Education and Research

Pedagogical Innovations and Educational Issues

## ORAL SESSIONS, 2nd July 2019

21st Century Skills

Serious Games & Game-Based Learning (1)

Educational Management

Student Support & Wellbeing

Intercultural Issues in Education

Secondary Education Experiences

ICT Skills and Digital Literacy

Research on Higher Education

Pedagogical Innovations in Education

Next Generation Classroom & Learning Space Design

Serious Games & Game-Based Learning (2)

Technology-Enhanced Learning (1)

Professional Development of Teachers (2)

Inclusive Education (1)

Primary Education Experiences

Digital Competences and Virtual Learning Experiences

Links between Education, Research and Innovation

Videos for Learning

Augmented and Virtual Reality

Serious Games & Game-Based Learning (3)

Technology-Enhanced Learning (2)

Professional Development of Teachers (3)

Teacher Training for Inclusive Education

Teacher Training in STEM

Digital Literacy

Curriculum Design

e-Learning Experiences (1)

e-Learning Platforms and Learning Management Systems

Gamification

Technology Enhanced Experiences in Special Education

Mathematics Education

Student Support & Inclusive Education

STEM Outreach Activities

e-Assessment

Work Based Learning

e-Learning Experiences (2)

New Trends in Learning Analytics

Blended Learning

Technology in Primary and Secondary Education

Business Education

Inclusive Education (2)

STEM Education

Assessment in Higher Education

Internships and Workplace Learning

e-Tutoring and Intelligent Tutoring Systems

## POSTER SESSIONS, 2nd July 2019

New Experiences in Education

Emerging Technologies in Education

## VIRTUAL SESSIONS

21st Century Skills  
Academic Research Projects  
Augmented Reality  
Barriers to Learning  
Blended Learning  
Collaboration Projects and Networks  
Computer Supported Collaboration  
Curriculum Design and Development  
Design Thinking and Creativity  
Distance Learning  
Diversity Issues, Women and Minorities  
E-content Management and Development  
e-Learning Projects and Experiences  
Early Childhood and Preschool Education  
Education and Globalization  
Educational Management  
Educational Software & Serious Games  
Educational Trends and Best Practice Contributions  
Emerging Technologies in Education  
Enhancing Learning and the Undergraduate Experience  
Ethical Issues in Education  
Evaluation and Assessment of Student Learning  
Flipped Learning  
Game Based Learning  
Higher and Further Education  
ICT skills and Digital literacy  
Impact of Education on Development  
Language Learning Innovations  
Leadership in Education  
Learning and Teaching Methodologies  
Learning by doing & Experiential Learning  
Learning Management Systems (LMS)  
Lifelong Learning  
Links between Education and Research  
Massive Open Online Courses (MOOCs)  
Mobile and Tablet Technologies  
Mobile Learning  
Multicultural Education  
New Experiences in Education  
New Learning/Teaching Models  
New projects and Innovations  
New Trends in Education and Research  
Organizational, Legal, Policy and Financial Issues  
Pedagogical Innovations and Educational Issues  
Pre-service and In-service Teacher Experiences  
Primary and Secondary Education  
Problem and Project-Based Learning  
Quality Assurance and Accreditation  
Research Methodologies  
Special Education & Inclusive Learning  
STEM in Education  
Student Support in Education  
Team-Based and Collaborative Learning  
Technology-Enhanced Learning  
The 2030 Agenda for Sustainable Development  
The Bologna Declaration and ECTS Experiences  
The Impact of Web Technologies on Education  
Transferring Skills and Disciplines  
Virtual Learning Environments (VLEs)  
Virtual Reality and 3D Applications  
Workplace Training and Employability Issues