The 16th edition of the **International Conference on e-Learning** (part of the IADIS Multi Conference on Computer Science and Information Systems 2022) was in Lisbon, Portugal, during **19-21 July, 2022**.

This conference was organized by the International Association for Development of the Information Society (IADIS).

Once more the e-Learning conference aimed to address the key issues of concern within the context of e-Learning. This conference tried to cover both the technical as well as the non-technical aspects of e-Learning. The main tracks for submissions were: Organizational Strategy and Management Issues; Technological Issues; e-Learning Curriculum Development Issues; Instructional Design Issues; e-Learning Delivery Issues; e-Learning Research Methods and Approaches; e-Skills and Information Literacy for Learning.

The 2022 edition received 112 submissions from more than 21 countries. Each submission was anonymously reviewed by an average of four independent reviewers, to ensure that accepted submissions were of a high standard. Consequently, only 17 full papers were approved, which meant an acceptance rate of 15%. A few more papers were accepted as short and reflection papers.

Extended versions of the best papers were selected to be published in:

the Interactive Technology and Smart Education (ITSE) journal (ISSN: 1741-5659)



the IADIS International Journal on WWW/Internet (IJWI). ISSN: 1645-7641



Besides papers' presentations, the conference also included one keynote presentation by Professor Piet Kommers, UNESCO Professor of Learning Technologies, The Netherlands. It also featured a special talk by Professors: Cathie Norris, Regents Professor, University of North Texas, USA, Elliot Soloway, Arthur F. Thurnau Professor, University of Michigan, USA, and Anne Tapp, Professor, Dept. of Teacher Education, College of Education, Saginaw Valley State University, USA, and a talk by Dr Yaping Gao, EDD, Senior Academic Director, Member Services & Partnerships Quality Matters, USA.



Keynote Presentation:

NEEDS AND TOOLS FOR ARTIFICIAL INTELLIGENCE IN 21ST CENTURY SOCIETY

Professor Piet Kommers, UNESCO Professor of Learning Technologies, The Netherlands

In general, this edition offered once again a great opportunity to all their participants to discuss with success the most significant aspects regarding the theme e-Learning. It served as a forum that gathered researchers, practitioners, students and anyone that was working or studying in the field of Education.



The e-Learning Conference 2022 was published in hard copy (ISBN: 978-989-8704-39-9) by IADIS Press.

Volume Editors: Miguel Baptista Nunes and Pedro Isaias

Computer Science and Information Systems Series Editors: Piet Kommers and Pedro Isaias

Program Committee:

e-Learning 2022 Conference Program Co-Chairs

Miguel Baptista Nunes, School of Information Management, Sun Yat-Sen University,

Guangzhou, China

Pedro Isaias, The University of New South Wales (UNSW – Sydney), Australia

MCCSIS 2022 General Conference Co-Chair

Piet Kommers, University of Twente, The Netherlands
Pedro Isaias, The University of New South Wales
(UNSW – Sydney), Australia

Conference Committee Members

Adamantios Koumpis, RWTH Aachen, Germany

Alex Voychenko, International Research and Training Center for ITS, Ukraine

Alexandru Vulpe, University Politehnica of Bucharest, Romania

Ana Barata, ISEP-GILT, Portugal

Andreas Bollin, Klagenfurt University, Austria

Andreas Papasalouros, University of the Aegean, Greece

Angélica De Antonio, Universidad Politecnica de Madrid, Spain

Ania Lian, Australian Catholic University, Australia

Antoanela Naaji, Vasile Goldis West University of Arad, Romania

Antonio Hervás-Jorge, Universidad Politécnica de Valencia, Spain

Antonio Navarro, Universidad Complutense de Madrid, Spain

Apostolos Gkamas, University Ecclesiastical Academy of Vella of Ioan, Greece

Bertil P. Marques, Instituto Superior de Engenharia do Porto (ISEP) -, Portugal

Charalampos Karagiannidis, University of Thessaly, Greece

Christos Bouras, University of Patras, Greece

Christos Troussas, University of West Attica, Greece

Claudia Steinberger, Klagenfurt University, Austria

David Guralnick, Kaleidoscope Learning, United States

Demetrios Sampson, University of Piraeus, Greece

Dessislava Vassileva, Sofia University "St. Kliment Ohridski", Bulgaria

Dimitra Pappa, National Center for Scientific Research - Demokritos, Greece

Eliza Stefanova, Sofia University, Bulgaria

Elliot Soloway, University of Michigan, USA

Erick Araya, University Austral of Chile, Chile

Esteban Vázquez Cano, Spanish National University of Distance Education, Spain

Eugenia Kovatcheva, University of Library Studies and Information Technologies, Bulgaria

Eva Jereb, University of Maribor, Slovenia

Francesca Pozzi, Instituto Tecnologie Didattiche – CNR, Italy

Gabriela Grosseck, West University of Timisoara, Romania

George Tsihrintzis, University of Piraeus, Greece

Giovanni Bonaiuti, University of Cagliari, Italy

Giuliano Vivanet, University of Cagliari, Italy

Ibrahim Ahmed, University of Bahrain, Bahrain

Isidoros Perikos, University of Patras, Greece

Jennifer-Carmen Frey, European Academy of Bozen/Bolzano, Italy

Jose Bidarra, Open University, Portugal

Juan M. Santos, University of Vigo, Spain

Katerina Kabassi, Ionian University, Greece

Kateryna Synytsya, Ukraine International Research and Training Center, Ukraine

Kostas Vassilakis, Technological Educational Institution of Crete, Greece

Luis Álvarez-González, Universidad Austral de Chile, Chile

Luis Anido-Rifón, University of Vigo, Spain

Maiga Chang, Athabasca University, Canada

Malinka Ivanova, Technical University of Sofia, Bulgaria

Manuel Caeiro-Rodríguez, University of Vigo, Spain

Maria Moundridou, School of Pedagogical and Technological Education, Greece

Marina Rui, University of Genoa, Italy

Martin Wessner, Hochschule Darmstadt, Germany

Martín Llamas-Nistal, University of Vigo, Spain

Martina Benvenuti, Italian National Research Council (CNR), Italy

Michail Kalogiannakis, University of Crete, Greece

Mizue Kayama, Shinshu University, Japan

Nicola Capuano, University of Basilicata, Italy

Patrick Blumschein, Teacher University of Freiburg, Germany

Paula Escudeiro, ISEP/GILT, Portugal

Paula Miranda, Polytechnic Institute of Setubal, Portugal

Pavel Rusakov, Riga Technical University, Latvia

Petra Poulova, University of Hradec Kralove, Czech Republic

Piedade Carvalho, ISEP/GILT, Portugal

Rafael Morales Gamboa, Universidad de Guadalajara, Mexico

Raul Antonio Aguilar Vera, Universidad Autonoma de Yucatan, Mexico

Ritesh Chugh, CQUniversity, Australia

Rosabel Roig-Vila, Universidad de Alicante, Spain

Roza Dumbraveanu, The State Pedagogical University Ion Creanga, Republic of Moldova

Stanimir Stoyanov, University of Plovdiv, Bulgaria

Telmo Zarraonandia, Universidad Carlos III de Madrid, Spain

Thomas Zarouchas, Computer Technology Institute and Press "Diophantus", Greece

Vassilis Triantafillou, University of Peloponnese, Greece

Veronika Makarova, University of Saskatchewan, Canada