CONFERENCE PROGRAM

ICETC The 15th International Conference on Education Technology and Computers

ICDLE The 14th International Conference on Distance Learning and Education

University of Barcelona, Barcelona, Spain | September 26-28, 2023

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Welcome Message

On behalf of the organizing committee, it is an honor to extend a heartfelt welcome to all attendees of the 15th International Conference on Education Technology and Computers (ICETC 2023) and the 14th International Conference on Distance Learning and Education (ICDLE 2023), both taking place in the University of Barcelona, Spain during September 26-28, 2023.

I am delighted to have you join the momentous events dedicated to exploring the intersections of education, technology, and innovation. This year's conferences are not only about sharing insights but also about envisioning a future where technology acts as a catalyst for transformative learning experiences.

I am excited to announce that ICETC 2023 and ICDLE 2023 will be held as a hybrid event, offering participants the flexibility to engage either in person or virtually. This inclusive approach ensures that the wealth of knowledge and expertise shared during the event will reach a diverse global audience.

I am also pleased to share that this year, we received an overwhelming response from researchers and educators worldwide. We received a total of 280 submissions from countries and regions around the globe, including Spain, China, the United States, Mexico, Germany, Canada, Australia, the Czech Republic, Turkey, and many others.

After a rigorous review process, I am proud to announce that 109 papers have been accepted for presentation at ICETC 2023 and ICDLE 2023. These selected contributions reflect the high-quality research and innovation that our conferences aim to foster.

Amidst the historic and captivating backdrop of Barcelona, the conferences will feature an array of enlightening sessions, including keynote speeches, invited speeches, and research paper presentations. Additionally, the events present an excellent opportunity to network with fellow educators, researchers, and practitioners who share a passion for innovation in education.

As you embark on this enriching journey, you are strongly encouraged to embrace the ideas, forge connections, and seize the opportunities that ICETC 2023 and ICDLE 2023 offer. Let us collectively shape the future of education through the lens of technology and innovation.

Once again, welcome to Barcelona, welcome to the future of education! I look forward to the vibrant discussions and transformative ideas that will emerge from our time together.

Warm Regards,

Conference Chair
Prof. Mario Barajas Frutos, University of Barcelona, Spain

ICETC 2023

The 15th International Conference on Education Technology and Computers
The 14th International Conference on Distance Learning and Education (ICDLE 2023)

September 26-28, 2023

Onsite Conference Notice

Conference Venue

Mundet Campus, University of Barcelona
Address: Pg Vall d'Hebron, 173, Montbau, Horta-Guinardó, Barcelona, Spain

Located in the privileged environment of the Collserola foothills, the Mundet Campus of the University of Barcelona includes various faculties and entities of great social importance.

The Mundet Campus, of the University of Barcelona, encompasses several faculties and important social entities. Specialized in Pedagogy, Psychology and Teacher Training, the campus also integrates the School of Hospitality and Tourism and the Institute of Educational Sciences as attached centers.

Transportation

How to reach Campus Mundet
- FROM THE AIRPORT
By taxi: A taxi from the airport to the hotel will cost you between 35 and 40 euros (depending on the hour) and will take about 25 minutes.

2

Airport Suttle BUS: Take the "Aerobus", stop in Plaza Catalunya, then pick the Metro, Line 3.

- FROM THE CITY CENTER (PLAZA DE CATALUNYA)

By METRO: Line 3 (Green colour), direction Trinitat Nova, stop MUNDET. The Metro, from Plaza Catalunya till Mundet takes 20 minutes.

How to reach the venue "Palau de les Heures" from Metro stop MUNDET

You can walk from the Metro stop (10 minutes up to the hill), or pick a shuttle bus till the last bus stop (the second).

Info on transportation:

- https://www.tmb.cat/en/home
- https://aerobusbarcelona.es/?lang=en

Hotel Recommendation

Barcelona is a very touristic place. The most convenient is to choose a Hotel around Metro Line 3 (use options in maps.google.com, or similar), although other options are possible since transportation is very good (public transportation, taxi, etc)

Hotel very near campus (5 minutes):

Hotel Alimara

http://www.alimarahotel.com/

- University dormitory very near campus, AGORA BCN RESIDENCIA

Web: agorabcn.com/en

Address: Passeig dels Castanyers, 21 08035 Barcelona

Tel: +34.93.166.90.00

email: agoraresidents@cett.cat

* AGORA DOES NOT BELONG to the University of Barcelona, and should be booked individually.

Note: The organizing committee will not provide accommodation for the delegates. You are suggested to make the room reservation in advance.

Conference Rooms Information

Room in **Palau de les Heures**	Activity	Floor
Auditorium	Keynote Speeches	Ground Floor
Room 11	Invited Speeches, Onsite Session 1 & 4	1st Floor
Room 12	Onsite Session 2 & 5	1st Floor
Room 13	Onsite Session 3 & 6	1st Floor

Name Badge

For security purposes, delegates, speakers, exhibitors and staff are required to wear their name badge to all sessions and social functions. Lending your participant card to others is not allowed. Entrance into sessions is restricted to registered delegates only. If you misplace your name badge, please ask the staff at the registration desk to arrange a replacement.

Gentle Reminder

• Please ensure that you take all items of value with you at all times when leaving a room. Do not leave bags or laptops unattended. The conference organizer does not assume any responsibility for the loss of personal belongings of the participants.
• Accommodation is not provided. Delegates are suggested make early reservation.
• Please show the badge and meal coupons when dining.

Online Conference Notice

Platform: Zoom

Download Link: https://zoom.us/download

Sign In and Join

*Join a meeting without signing in.
A Zoom account is not required if you join a meeting as a participant, but you cannot change the virtual background or edit the profile picture.
*Sign in with a Zoom account.
All the functions are available.

Time Zone

UTC+2
Central European Summer Time (CEST)
*You're suggested to set up the time on your computer in advance.

Online Rooms Information

Online Room	Meeting ID	Link	Passcode
Room A	893 3215 2596	https://us02web.zoom.us/j/89332152596	2023
Room B	889 9382 6644	https://us02web.zoom.us/j/88993826644	2023

*Please use the Passcode: 2023 to enter the meeting room.

Zoom Testing Before Online Conference

Morning, Tuesday, September 26, 2023 (UTC+2)		
07:00-12:00	Online Room A: 893 3215 2596 Passcode: 2023	Committee / Keynote / Invited Speakers
	Online Room B: 889 9382 6644 Passcode: 2023	Authors / Listeners

1. You can download the **virtual background** here.
2. Prior to the formal conference, presenter shall join the test room to make sure everything is on the right track
3. Note: Please rename your Zoom Screen Name in below format before entering meeting room.

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2023

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Role	Format
Conference Committee	Position-Name
	e.g.: Conference Chair-Prof. Mario Barajas Frutos
Keynote/ Invited Speaker	Position-Name
	e.g.: Keynote Speaker-Prof. Matthew Ohland
Author	Session Number-Paper ID-Name
	e.g.: S1-ED0001-Name
Listener	Listener-Name

Presentation Process by Zoom Meeting

Step 1
Turn on the camera
and open slides

Step 2
Brief
self-introduction

Step 3
Share screen
(Shortcut: Alt+S)

Step 4
Q&A time, unmute yourself, or
type your question in the chat box

Step 5
A best presentation will be
selected from each session
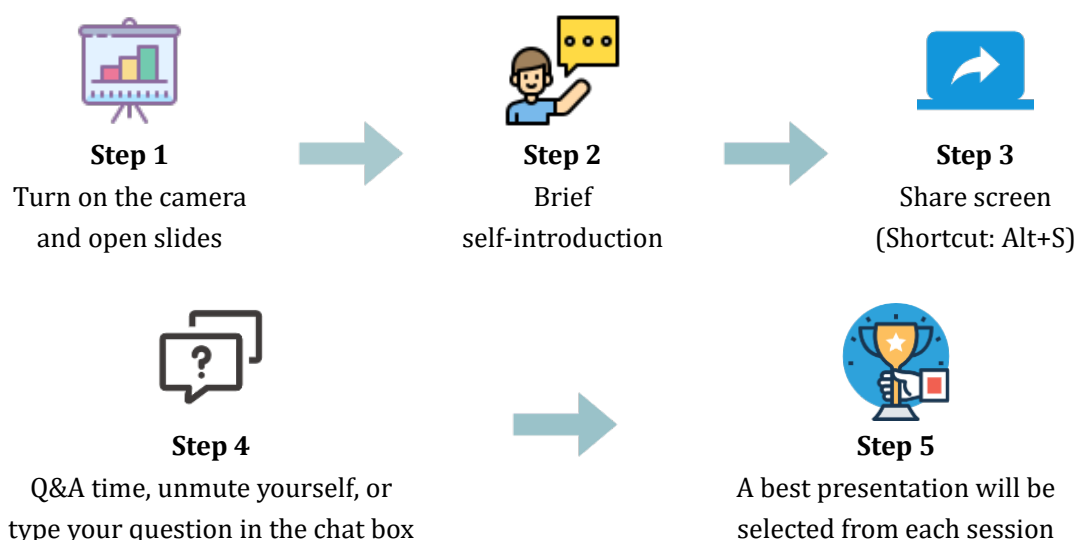
About Presentation

• Every presenter has 15 minutes, including Q & A. Each presentation should have at least TEN minutes.
• The best presentation certificate and all authors' presentation certificates will be sent after conference by email.
• It is suggested that the presenter email a copy of his / her video presentation to the conference email box as a backup in case any technical problem occurs.

Environment & Equipment Needed

• A quiet place; Stable Internet connection; Proper lighting and background
• A computer with internet and camera; Earphone

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Conference Recording

• We'll record the whole conference. If you do mind, please inform us in advance. We'll stop to record when it's your turn to do the presentation.

• The whole conference will be recorded. It is suggested that you should dress formally and we appreciate your proper behavior.

* The recording will be used for conference program and paper publication requirements. It cannot be distributed to or shared with anyone else, and it shall not be used for commercial nor illegal purpose.

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Conference Agenda

Tuesday, September 26, 2023

07:00-12:00	Zoom Testing Before Online Conference
11:00-18:00	Onsite Registration & Materials Collection Venue: Ground Floor in Palau de les Heures

Wednesday, September 27, 2023

Opening Ceremony & Keynote Speeches Onsite Room: Auditorium Online Room A: 893 3215 2596 (Passcode: 2023)		
	Chair – **Prof. Mario Barajas Frutos**, University of Barcelona, Spain	
09:00-09:05	Welcome Address – **Prof. Mario Barajas Frutos**, University of Barcelona, Spain	
09:05-09:15	Opening Remark – **Prof. Matthew Ohland**, IEEE Fellow, Purdue University, USA	
09:15-10:00	Keynote Speech	**Prof. Matthew Ohland**, IEEE Fellow, Purdue University, USA Speech Title: Exploring the Efficacy of ChatGPT in Analyzing Student Teamwork Feedback with an Existing Taxonomy
10:00-10:30	Group Photo & Coffee Break	
10:30-11:15	Keynote Speech (Online)	**Prof. Chronis Kynigos**, National and Kapodistrian University of Athens, Greece Speech Title: Constructionist Tools for Computational Thinking
11:15-12:00	Keynote Speech (Online)	**Prof. Dragan Gasevic**, Monash University, Australia Speech Title: Generative AI: Opportunities and Challenges for Education
12:00-14:00	Lunch	
Invited Speeches		
	Onsite Room: Room 11 Online Room A: 893 3215 2596 (Passcode: 2023)	Online Room B: 889 9382 6644 (Passcode: 2023)
	Chair – **Dr. Marc Fuertes**, University of Barcelona, Spain	Chair–**Assoc. Prof. Fenghua Li**, Northeastern University, China
14:00-14:25	**Dr. Vinh To**, University of Tasmania, Australia Speech Title: Pedagogical Challenges in Online Teaching Faced by Academics in Southeast Asia during COVID-19	**Assoc. Prof. Siti Hajar Halili** (Online), Universiti Malaya, Malaysia Speech Title: Embracing Open Badge Learning in Education Setting

14:25-14:50	**Dr. Nashwa Ismail**, University of Liverpool, UK Speech Title: Investigating Teachers' Online CPD And Its Impact On their Teaching Profession	**Assoc. Prof. Bo Qin** (Online), Shenyang Jianzhu University, China Speech Title: To Explore the Effects of Virtual Reality in Vocational Education and Training
14:50-15:15		**Mr. Piergiorgio Guarini** (Online), University of Foggia, Italy Speech Title: The Development of a Training to Enhance Italian Special Needs Teachers' Information and Communication Technologies (ICT) Skills and Knowledges
14:50-15:25	Coffee Break	
	Parallel Sessions	
15:25-17:25	Onsite Room 11	**Onsite Session 1** – Diverse Classroom Design and Educational Technology Innovation ED3004, ED3008-A, ED3016-A, ED1114, ED1099, ED1191, ED1094
	Onsite Room 12	**Onsite Session 2** – E-Learning System, Active Learning, and Technology-Enhanced Learning ED3007-A, ED4006-A, ED1090-A, ED1105, ED1038, ED1008, ED1174-A, ED1183
	Onsite Room 13	**Onsite Session 3** – Digital Learning Platform and Online Learning ED1032, ED1035, ED1036, ED3015-A, ED1206, ED1014, ED1037, ED1149-A
	Online Room A 893 3215 2596 (Passcode: 2023)	**Online Session 1** – Education Data Mining and Learning Analytics ED1095, ED1142, ED1026, ED1129, ED1068, ED1184, ED1093, ED4012
	Online Room B 889 9382 6644 (Passcode: 2023)	**Online Session 2** – Blended Learning, Blended Teaching, and Flipped Classroom ED2003, ED1203, ED1046, ED1033, ED1086, ED1205, ED1081, ED1043
18:00-20:00	Dinner Banquet	

Thursday, September 28, 2023

	Online Room A: 893 3215 2596 (Passcode: 2023)	Online Room B: 889 9382 6644 (Passcode: 2023)
	Online Parallel Sessions	
07:00-08:45	**Online Session 3** – Artificial Intelligence in Education and AI-Based Teaching ED1171, ED1088, ED1148, ED1193, ED1190, ED1024, ED1077	**Online Session 4** – Virtual Learning and Technology-Enhanced Learning ED2004, ED1047, ED1185, ED1085, ED2005, ED1075, ED1195
08:45-09:00	Break	
	Online Invited Speeches	
	Chair –**Prof. Jelena Jovanovic**, University of Belgrade, Serbia	Chair – **Prof. Zhong Sun**, Capital Normal University, China
09:00-09:25	**Assoc. Prof. Hui-Yu Yang**, Guangdong University of Petrochemical Technology, China Speech Title: Attention Cues on Multimedia Learning	**Assoc. Prof. Li Cheng**, Beijing University of Posts and Telecommunications, China Speech Title: Analysis of the Communication Mode of Chinese Culture and International Communication in the South Pacific Region Based on Internet Media
09:25-09:50	**Dr. Alex W. C. TSE**, The University of Hong Kong, China Speech Title: Challenges of Developing and Assessing 21st-Century Skills of High School Students: Using Critical Thinking as An Example	**Assoc. Prof. Diamantino Freitas**, University of Porto, Portugal Speech Title: Enabling Eyes-free Access, Creation and Interaction with Digital STEMA Media Content Using speech - Some Results
09:50-10:00	Break	
	Parallel Sessions	
10:00-12:15	Onsite Room 11	**Onsite Session 4** – Personalized Learning, Educational Data Mining, and Learning Analytics ED1027-A, ED1176, ED1012, ED1115, ED1051-A, ED1170
	Onsite Room 12	**Onsite Session 5** – Artificial Intelligence in Education and Human-Centered Computing ED1028, ED1159-A, ED3024-A, ED1117, ED1154, ED1143, ED1100
	Onsite Room 13	**Onsite Session 6** – STEM Education, Computer Science Education, and Education Management ED1107, ED1053, ED1156, ED1140, ED3010-A, ED1011, ED3017-A

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	Online Room A 893 3215 2596 (Passcode: 2023)	**Online Session 5** – ICT Integrated Education and Digital Teaching ED1052, ED1200, ED1172, ED1155, ED1168, ED1201, ED1194, ED1178, ED1106
	Online Room B 889 9382 6644 (Passcode: 2023)	**Online Session 6** – Online Learning and Students' Attitudes towards Online Learning ED1074, ED1082, ED1137, ED1015, ED1109, ED1050, ED1113, ED1073, ED1091
12:15-13:30	Lunch	

Online Parallel Sessions	
Online Room A: 893 3215 2596 (Passcode: 2023)	Online Room B: 889 9382 6644 (Passcode: 2023)

13:30-15:45	**Online Session 7** – Computer Science Education and Cultivation of Computational Thinking ED1056, ED1136, ED1152, ED1031, ED1042, ED1089-A, ED1211, ED1121, ED1210	**Online Session 8** – STEM Education and Education Management ED1199, ED1034, ED1128, ED1001, ED1040, ED1076, ED1118, ED1202, ED3012
15:45-16:10	Break	
16:10-16:30	Online Awards & Closing Ceremony Online Room A: 893 3215 2596 (Passcode: 2023)	

Keynote Speech

Prof. Matthew Ohland, IEEE Fellow

Purdue University, USA

Speech Time: 09:15-10:00, September 27, 2023
Onsite Room: Auditorium
Online Room A: 893 3215 2596 (Passcode: 2023)

Dr. Matthew Ohland is the Dale and Suzi Gallagher Professor and Associate Head of Engineering Education at Purdue University. He earned a Ph.D. in Civil Engineering from the University of Florida, M.S. degrees in Materials Engineering and Mechanical Engineering from Rensselaer Polytechnic Institute, and a B.S. in Engineering and a B.A. in Religion from Swarthmore College. He Co-Directs the National Effective Teaching Institute (NETI) with Susan Lord and Michael Prince. His research has been funded by over USD 20M, mostly from the United States National Science Foundation. Along with his collaborators, he has been recognized for his work on longitudinal studies of engineering students with the William Elgin Wickenden Award for the best paper published in the Journal of Engineering Education in 2008, 2011, and 2019. He has also been recognized for the best paper in IEEE Transactions on Education in 2011 and 2015, multiple conference Best Paper awards, and the Betty Vetter Award for Research from the Women in Engineering Proactive Network. The CATME Team Tools developed under Dr. Ohland's leadership and related research have been used by over 1.9 million students of more than 23,000 faculty at more than 2500 institutions in 90 countries, and were recognized with the 2009 Premier Award for Excellence in Engineering Education Courseware and the Maryellen Weimer Scholarly Work on Teaching and Learning Award in 2013. Dr. Ohland received the Chester F. Carlson Award for Innovation in Engineering Education from the American Society for Engineering Education (ASEE) for his leadership of that project. He is a Fellow of ASEE, IEEE, and AAAS. He has received teaching awards at Clemson and Purdue. Dr. Ohland is an ABET Program Evaluator and has previously served as an Associate Editor of IEEE Transactions on Education. He was the 2002–2006 President of Tau Beta Pi.

Speech Title: Exploring the Efficacy of ChatGPT in Analyzing Student Teamwork Feedback with an Existing Taxonomy

Abstract: Teamwork is a critical component of many academic and professional settings. In those contexts, feedback between team members is an important element to facilitate successful and sustainable teamwork. However, in the classroom, as the number of teams and team members and frequency of evaluation increase, the volume of comments can become overwhelming for an instructor to read and track, making it difficult to identify patterns and areas for student improvement. To address this challenge, we explored the use of generative AI models, specifically ChatGPT, to analyze student comments in team based learning contexts. Our study aimed to evaluate ChatGPT's ability to accurately identify topics in student comments based on an existing framework consisting of positive and negative comments. Our results suggest that ChatGPT can achieve over 90% accuracy in labeling student comments, providing a potentially valuable tool for analyzing feedback in team projects. This study contributes to the growing body of research on the use of AI models in educational contexts and

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highlights the potential of ChatGPT for facilitating analysis of student comments. This presentation shares the collaborative work of Andrew Katz of Virginia Polytechnic Institute and State University in Blacksburg, Virginia, and Siqing Wei, Gaurav Nanda, Chris Brinton all of Purdue University – West Lafayette, Indiana, along with the speaker. A paper by the same title has been pre-published at the arXiv repository and is being submitted for journal publication.

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Keynote Speech
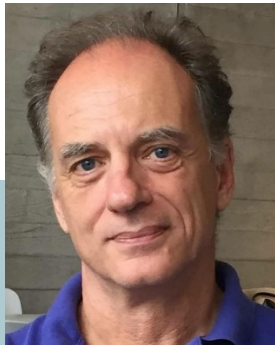
Prof. Chronis Kynigos (Online)

National and Kapodistrian University of Athens, Greece

Speech Time: 10:30-11:15, September 27, 2023
Onsite Room: Auditorium
Online Room A: 893 3215 2596 (Passcode: 2023)

Chronis directs the Educational Technology Lab at the Dept. of Educational Studies, School of Philosophy, NKUA.

His research interests involve the design and use of digital media to study engaged socio-constructionist learner activities. He has applied Design Research methods to study innovative educational practices aiming to transform schooling to cultivate citizenship rather than academic excellence. He serves as academic consultant to the Ministry of Education on TPD since 2005 and is responsible for Mathematics having reached 35% of teachers in the country. He is responsible for the design of three popular original authoring systems freely available at http://etl.eds.uoa.gr. a) Malt, a programmable modeler for animated figural objects to support computational thinking (CT) and mathematics. b) ChoiCo, a 'choices with consequences' game creator for CT and the grappling with wicked, socio-scientific issues and c) SorBET, a tetris - like game creator integrating CT with classification. He is an active member at the IDC, Constructionism and ICTMT conferences. He represents Greece at the International Congress of Mathematical Instruction. He is also visiting Professor at Linnaeus University Sweeden. Chronis has been active in the European Research and Developlent scene and is currently engaged with two HORIZON multi-oranisational projects, numbers 15 and 16 in his career, respective acronyms: ExtenDT2 and TransEET.

**Speech Title: Constructionist Tools for Computational Thinking**

Abstract: One of the first ideas on how to use digital media for learning was a kind of a wake-up call to what learning actually could be from an epistemological and a pedagogical point of view. The elements that the education community was jolted into seriously considering was that of a) meaning-making versus routine learning and b) agency and creativity versus response to controlled questions which can be objectively assessed. But this was a long time ago. Since then, technology has been used for everything under the sun spanning from conservationist to administrative to transformative approaches to what it means to educate. In the education community the interest in transformative approaches has led research to progress from adopting a misconceptions approach to learning to a meaning-making approach and the to the idea of skills and in the past decade to competences. Meanwhile new technologies are always emerging providing excitement but at the same time not much chance for educational added value to properly integrate into education systems. In my talk I will use three examples of digital expressive tools less known than MIT-scratch, but equally designed to enable engagement and to integrate computational thinking into the adoption of competences. I will take the case of mathematics education but broadly, asking 'what mathematics is good for cultivating mathematical competences' and 'what is mathematical about real life socio-scientific issues relevant to

youth today'. In my talk I will show examples of these three tools - authoring systems in fact - which are available freely for anyone to use or to design things with. The first, MaLT2, is a programmable modeller for animated 3D graphical figures, the second, ChoiCo, is a game designer for games based on the 'choices with consequences' paradigm and the third, SoRBET, is a tetris-like game designer based on the notion of classification. I will suggest some theoretical tools which have been useful to us in our 30-year long research at ETL to study learning processes and professional development.

Keynote Speech
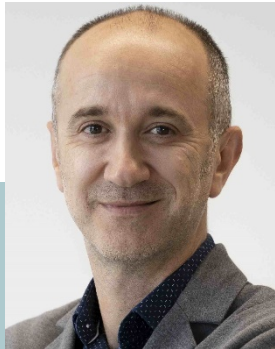
Prof. Dragan Gasevic (Online)

Monash University, Australia

Speech Time: 11:15-12:00, September 27, 2023
Onsite Room: Auditorium
Online Room A: 893 3215 2596 (Passcode: 2023)

Dragan Gašević is Professor of Learning Analytics in the Department of Data Science and Artificial Intelligence of the Faculty of Information Technology and the Director of the Centre for Learning Analytics at Monash University. Dragan's research interests in learning analytics center around the development of computational and design methods that advance understanding of self-regulated and collaborative learning. He is a founder and served as the President (2015-2017) of the Society for Learning Analytics Research (SoLAR). In 2019-2022, he was recognized as the national field leader in educational technology in The Australian's Research Magazine. In 2022, he received Lifetime Member Award as the highest distinction of SoLAR and was recognized as a Distinguished Member of the Association for Computing Machinery.

Speech Title: Generative AI: Opportunities and Challenges for Education

Abstract: This talk will discuss the promise of generative artificial intelligence (AI) in education. Existing debates about its implications often take several perspectives. Some argue that generative AI can profoundly enhance education and enable personalized learning. Others note significant disruptions to existing assessment practices and call for innovative approaches. Some even articulate great ethical concerns about the implications of using generative AI in education. This talk will address all of these perspectives. It will first discuss promising directions for the use of generative AI in education. It will then outline some major concerns associated with technology that underpins generative AI. Finally, the talk will outline directions for future research. The talk will draw upon a growing body of research knowledge and evidence derived from several empirical studies to provide insights into these important questions.

Invited Speech

Dr. Vinh To

University of Tasmania, Australia

Speech Time: 14:00-14:25, September 27, 2023
Onsite Room: Room 11
Online Room A: 893 3215 2596 (Passcode: 2023)

Dr Vinh To is a Senior Lecturer in English Curriculum and Pedagogy at the University of Tasmania, Australia. Her research interests include educational linguistics, English, literacy and languages education, and online education. Her publications appear in top quartile journals such as the Australian Journal of Linguistics, the International Journal of Early Years Education, the Australian Journal of Language and Literacy and Linguistics and the Human Sciences. She has been invited to deliver international keynotes in Vietnam and Lithuania and her research activities appear in media news across the Australian and ASEAN regions. Dr To is the Founder of the Systemic Functional Linguistics Interest Group (SFLIG) and the Convenor of SFLIG Conferences. She is the Editor of "Systemic Functional Linguistics Theory and Application in Global Contexts", and Guest Editor for Linguistics and the Human Sciences. Dr To is the chief investigator of the Australia-ASEAN Academics Forum: Online Education During Covid-19 and beyond, funded by the the Australian Government through the Australia-ASEAN Council of the Department of Foreign Affairs and Trade. She has been awarded the University of Tasmania's Deputy Vice-Chancellor's Commendation Letter, three Teaching Merit Certificates in recognition of her excellent teaching in fully online and blended courses, and a Student Teaching Appreciation Certificate. She has also been awarded a CALE Commendation for Research Innovation and Impact.

Speech Title: Pedagogical Challenges in Online Teaching Faced by Academics in Southeast Asia during COVID-19

Abstract: The sudden move to online teaching for the first time during COVID-19 caused a number of challenges to academics in higher education institutions in Southeast Asia (SEA). The results presented in this paper are part of a larger research project funded by the Australia-ASEAN (Association of Southeast Asian Nations) Council of the Department of Foreign Affairs and Trade of the Australian Government to investigate the readiness, practices, and challenges of online education in 10 ASEAN countries during COVID-19. This project surveyed 184 participants in March 2021 across 10 SEA countries, who were involved in online teaching at their universities for the first time. The survey was then followed by 10 group interviews in June 2021 and 20 individual interviews in September 2021. The participants came from a range of disciplines including education, Information and communication technology, humanities, social sciences, health, and economics. Using thematic analysis and the interpretative paradigm, many technological and pedagogical concerns were revealed, and these were experienced across both synchronous and asynchronous teaching. Pedagogical challenges for first-time online delivery included student engagement in the online environment, preparing engaging online lessons and online assessment. This research provides valuable insights into how ASEAN lecturers taught online in response to the urgent need to switch to online teaching.

Invited Speech

Dr. Nashwa Ismail
University of Liverpool, UK

Speech Time: 14:25-14:50, September 27, 2023
Onsite Room: Room 11
Online Room A: 893 3215 2596 (Passcode: 2023)

Dr. Ismail holds an MSc and PhD in Education from Southampton Education School and is a Fellow of The Higher Education Academy (FHEA). With a focus on Technology-Enhanced Learning (TEL), she has nine years of experience in teaching and research in UK Higher Education. Currently a lecturer in education technology at the University of Liverpool, she leads projects in games-based learning, CPD, and e-assessment. Dr. Ismail's leadership extends globally, with roles in research projects across countries like Indonesia, Malaysia, Middle East (Egypt, Saudi Arabia), Myanmar, Thailand, and the USA. Her current efforts include utilizing ChatGPT for teaching, investigating online CPD impact in Kenya and Sierra Leone, and leading ChatGPT workshops in the Middle East (Egypt, Iraq and Oman).

Speech Title: Investigating Teachers' Online CPD And Its Impact On their Teaching Profession

Abstract: In the wake of the COVID-19 pandemic, the landscape of Continuous Professional Development (CPD) for school teachers has witnessed significant changes. Post-Covid, hybrid CPD has emerged as a prominent format, holding immense potential in both attracting and retaining teachers in the education sector (ISC Research, 2023). This study aims to investigate the impact of provided online training on enhancing teachers' competence and supporting their growth and proficiency. Using a qualitative research approach, the author conducted semi-structured interviews with 12 school-teachers who participated in online and hybrid CPD sessions. The study examined the design and delivery of the online CPD provided, exploring challenges and merits associated with this mode of training. Teachers' perceptions of the online training were also assessed, along with their recommendations for improvement and how teachers vision the learning mode for their future CPD.

Invited Speech

Assoc. Prof. Siti Hajar Halili (Online)

Universiti Malaya, Malaysia

Speech Time: 14:00-14:25, September 27, 2023
Online Room B: 889 9382 6644 (Passcode: 2023)

Assoc. Prof. Ts. Dr. Siti Hajar Halili is the Head of the Department of Curriculum & Instructional Technology. She was formerly with the Research Division, Prime Minister Department, Malaysia. She holds a Degree in Information System Management from the University Technology MARA, a Master's in Educational Technology, and PhD. in Adult Education Technology from the University Sains Malaysia. Her works are published in ISI, SCOPUS, Malaysian and International journals. She has also published books and chapters in books. She has broad experience in teaching and training in the area of Instructional Design & Technology. She also serves as Chief Editor of Jurnal Penyelidikan Pendidikan, and article reviewer for several journals and conferences. Currently, she is active in research and publishes in Instructional Design & Technology, Open Education, Digital Curriculum & Design, Curriculum & Instruction, Educational Technology and Media (Flipped Learning, Open-Badge Learning, and Digital Learning).

Speech Title: Embracing Open Badge Learning in Education Setting

Abstract: Open Badge Learning (OBL) has emerged as a powerful tool in education, revolutionising how learning is recognized and valued. It explores the potential of OBL in transforming traditional education systems, fostering a culture of lifelong learning, and enhancing skill recognition in diverse educational environments. It also provides a flexible and adaptable framework for individuals to showcase essential skills and lifelong learning, The sharing session begins by elucidating the concept of OBL and its fundamental principles, highlighting its capacity to validate and showcase an individual's knowledge and skills beyond formal academic qualifications and challenges of OBL in the education setting. Through OBL, learners are empowered to accumulate and display their skills and competencies aligning with the dynamic demands of the modern job market.

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The 14th International Conference on Distance Learning and Education (ICDLE 2023)
September 26-28, 2023

Invited Speech

Assoc. Prof. Bo Qin (Online)

Shenyang Jianzhu University, China

Speech Time: 14:25-14:50, September 27, 2023
Online Room B: 889 9382 6644 (Passcode: 2023)

Mr Qin had received his B.S., and M.S degrees in 2002 and 2007 between Dalian Industry University in China and Southampton University in England. Since 2008, he has been with the Shenyang Jianzhu University in China. He is currently an Assoc. Prof. His current interests are in the areas of applications of AIGC (Artificial Intelligence Generate Content) in Higher education, Design Education and Virtual Reality. He also holds a position of a lecture in Shenyang Institute of technology 2021/2023. He had published several papers in EI conferences.

Speech Title: To Explore the Effects of Virtual Reality in Vocational Education and Training

Abstract: The features of Virtual Reality (VR) present a learner-centric platform, make leaning more vivid, and solve the problems that cannot complete in physical classes. It can encourage the students' motivation and improve the learning experience. However, results pertaining to the effects of VR in vocational education and training (VET) have not been explored deeply. As for the design skills, whether VR can improve the design outcomes, it is still a big question. In this paper, we chose the VR to support interior designers for designing the office space. After analyzing this instructional experiment, we investigate the effects of VR in designing office space compared with the traditional method on proportion, composition, and innovation from design outcomes. The results show that VR can enhance the design outcomes compare with paper sketching except innovation. On the other hand, the design outcomes can be impacted by different orders between paper sketch first after VR or VR first after paper sketch. As for quantitative analysis, we find the first combination is better than the second one.

Invited Speech

Mr. Piergiorgio Guarini (Online)

University of Foggia, Italy

Speech Time: 14:50-15:15, September 27, 2023
Online Room B: 889 9382 6644 (Passcode: 2023)

Piergiorgio Guarini is a Ph.D. candidate in "Neuroscience and Education" (curriculum "Innovation") at University of Foggia in Italy. His project focuses on innovative digital teaching methodologies, especially on structuring a new course to enhance pre-service teachers' digital skills using innovative digital methodologies (e.g. Digital Game-Based Learning). He works on four Erasmus+ project: two are about digital competences for teachers (Tuned, GEMMA), one is about students' digital resilience (DigiPsyRes), and the last one is about using Serious Games for medical students training (E-MEDIC). He has Master's Degree in Science of Development and International Cooperation and two Masters in "Europlanning" and "Social Critique of Contemporaneity. Globalization and Human Rights." In the last three years he was author or co-author of about 25 papers most of them indexed on Scopus. He has been chair or reviewer in more than 5 international conferences.

Speech Title: The Development of a Training to Enhance Italian Special Needs Teachers' Information and Communication Technologies (ICT) Skills and Knowledges

Abstract: In recent years, especially after the Covid-19 pandemic, the digital skills of K-12 teachers have become very important. Not only "operational" skills, such as how to use a videocall software, but also a new knowledge about the possibilities offered by the didactic digital software and tools in designing and planning a lesson or a whole study course. In Italy, K-12 teachers and school institutions digital skills and capabilities were under the average in the OECD Countries (Talis Survey 2018) and they struggled during the lockdowns due to the Covid-19 pandemic. Nowadays the emergency is over, but the Covid-19 has forever changed the way in which the didactic is provided – if not on the teachers' side, certainly on the students' side.

The University of Foggia Learning Science hub (LSh), in Italy, works on designing and planning new methodologies to teach digital skills to pre-service teachers (especially special needs teachers), in order to enhance their knowledge and use of digital skills in planning and providing interventions, lessons and courses.

To guide the designing and planning activities, we have administered the DigComp 2.2, the newest version (by March 2022) of the self-report questionnaire of the Digital Competence Framework for Citizens created by the European Commission, to approximately 800 special needs teachers training at the University of Foggia in the current Academic Year (2022/2023).

In the speech, the collected results of the survey will be presented and discussed, becoming the cornerstone of LSh research in this field: knowing the digital skills initial level of in-training teachers is essential to design and plan a course that can enhance teachers' knowledge and train them in using Information and Communication Technologies (ICT) in their everyday work. The survey has been

administered before and at the end of the specialization course to become special needs teachers, in order to be able to compare teachers' digital skills improvement after the course.

The speech will close with the proposal of the design of a new way to teach digital skills to pre-service and in-service teachers, shaped following the DigCompEdu 2.2 Framework

Invited Speech

Assoc. Prof. Hui-Yu Yang (Online)

Guangdong University of Petrochemical Technology, China

Speech Time: 09:00-09:25, September 28, 2023
Online Room A: 893 3215 2596 (Passcode: 2023)

Hui-Yu Yang is an Associate Professor of Guangdong University of Petrochemical Technology. Her research interest includes mobile learning and educational technology. Her research works have been published in CALICO journal, International Journal of Mobile and Blended Learning, International Journal of Technology and Human Interaction, Australasian Journal of Educational Technology, International Journal of Human-Computer Interaction, Technology in Society, Educational Technology and Society, and Journal of Research on Technology in Education.

Speech Title: Attention Cues on Multimedia Learning

Abstract: Due to the transience of animations, while animations are displayed, several components move simultaneously and compete for learners' limit attention. The purpose of highlighting each component in a mechanical system progressively and cumulatively throughout the animation is to reduce competition between cues and animated component for learners' attention. In this way, the learners' attention can be more equally distributed among each component rather than be unevenly distributed to the more visually salient components. The transience of animations can be solved by making animations interactive and by presenting snowball-like cues along with the progress of the animations. Interactive animations also help alleviate perceptual difficulties by allowing learners to manipulate the presentation mode and display speed that appropriately matched the learners' capability to process the information.

University of Barcelona, Barcelona, Spain

Invited Speech

Dr. Alex W. C. TSE (Online)

The University of Hong Kong, China

Speech Time: 09:25-09:50, September 28, 2023
Online Room A: 893 3215 2596 (Passcode: 2023)

Dr. Alex W. C. TSE is currently a Lecturer at Teacher Education and Learning Leadership, Faculty of Education, The University of Hong Kong, mainly responsible for teaching, research and projects of STEM education, information technology in education, critical thinking, assessment for learning, inquiry-based learning assessment and small class teaching. He has been serving as a project member of PISA 2025 (Learning in the Digital World) and a member of programme committee for Master of Science in Information Technology in Education. Dr. Tse has been serving as a reviewer of manuscripts of various academic journals and conferences. He also has been acting as a programme committee chair/member in various academic conferences in IT in Education and STEM education, serving as (permanent) Council Member (previously Secretary-General) of Chinese Society for Inquiry Learning since 2009. He has published more than 40 items, including book chapters, journal papers, research reports and double-blind peer reviewed conference papers.

Speech Title: Challenges of Developing and Assessing 21st-Century Skills of High School Students: Using Critical Thinking as An Example

Abstract: Critical thinking generally refers to the competence of making purposeful and self-regulatory judgments. It is an important learning objective in education worldwide (e.g. one of the 21st-century skills in OECD's framework of lifelong learning). Regardless of its importance and the existence of a wide variety of learning and teaching approaches to develop critical thinking, learning designs and assessment tasks which effectively and systematically develop and assess critical thinking are generally limited in high schools. This invited speech discusses various challenges of developing and assessing the critical thinking of high students and suggests possible ways of addressing these challenges in order to facilitate educators, researchers, instructional designers and school leaders to develop and assess the critical thinking of high school students more effectively and systematically.

Invited Speech

Assoc. Prof. Li Cheng (Online)

Beijing University of Posts and Telecommunications, China

Speech Time: 09:00-09:25, September 28, 2023
Online Room B: 889 9382 6644 (Passcode: 2023)

Dr. Li Cheng is an associate professor and graduate student supervisor at Beijing University of Posts and Telecommunications (BUPT). Her research interests at present are computer-assisted language learning, digital humanities, intercultural communication and Teaching English/Chinese to Speakers of Other Languages. In the past five years, Dr. Cheng presided over/participated in six research projects at the provincial and the university level. As a team member, she won the second prize of 2022 Beijing Teaching Achievement Award in Higher Education and 2021 Excellent Postgraduate Supervisor Team Award of BUPT.

Speech Title: Analysis of the Communication Mode of Chinese Culture and International Communication in the South Pacific Region Based on Internet Media

Abstract: In a report in 2016, the United Nations Development Programme identified four key main fields of collaboration between China and the South Pacific region under the South-South Cooperation framework: infrastructure construction, public health, climate change, and new energy. Taking a positive discourse analysis perspective, this paper reports a series of studies exploring the discourse ecological civilization in the cultural exchanges between China and the South Pacific based on the WeChat accounts of South Pacific research. A combination of software was used for data collection and analysis including web crawler tools, ELAN and MAXQDA. The study will provide useful reference for investigation into positive discourse analysis, international communication, and ecological civilization.

Invited Speech

Assoc. Prof. Diamantino Freitas (Online)

University of Porto, Portugal

Speech Time: 09:25-09:50, September 28, 2023
Online Room B: 889 9382 6644 (Passcode: 2023)

Diamantino Freitas is presently an Associate Professor and coordinator of the Speech Processing, Electroacoustics, Signals and Instrumentation Laboratory (LPF-ESI) in the ECE Department of the Faculty of Engineering of the University of Porto, Portugal. His areas of interest includes electronic instrumentation, electro-acoustics, audio, signal processing, technologies for rehabilitation of people with special needs and development of resources for inclusion in learning and teaching. He has participated in several national and international R&D projects with the position of national delegate in several COST actions. Since 2012, together with supervision of master's or doctoral dissertations, he has an authorship in forty-four papers at conferences, twenty papers in scientific journals, ten book chapters and two patents. He was also the recipient or co-recipient of six national and three international awards.

Speech Title: Enabling Eyes-free Access, Creation and Interaction with Digital STEMA Media Content Using speech - Some Results

Abstract: Modern digital media succeeded in coding STEMA content through text-based XML dialects, such as HTML, MATHML, SVG and others. Most of these representations are model-based and composed by objects and dynamics of quite varied nature, such as text boxes, mathematical expressions, geometric shapes, electric circuits, molecular diagrams and many others. Being primarily available in visual form, rendering of STEMA content in an eyes-free way when subjects are visually impaired persons (VIPs) is to my experience an on-going challenge. It raises several difficulties due to the medium conversion operations and their characteristics, affecting the representations' quality and cognitive process. One such medium conversion is the graphical to tactile one, as the latter is a geometrical low-resolution representation. Another conversion example is the mathematical expression into speech one. In this case, speech time-linearity most probably causes a mental overload, in case memory management and cognitive aspects are not well considered. Speech as a general-purpose medium may also be used to describe graphical contents. In this communication, I will present some medium conversion projects developed in my laboratory in the past 20 years aiming to enable a better access of VIPs to mathematics, technical drawings and museum objects.

Onsite Session 1

	Topic: Diverse Classroom Design and Educational Technology Innovation **Session Chair: Dr. Vinh To, University of Tasmania, Australia** **Time: 15:25-17:10, September 27, 2023** **Onsite Room: Room 11**
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED3004 15:25-15:40	Blended Learning, Flipped Classroom and Peer Teaching? A Classroom Design to Meet Increasing Diversity in Higher Education Annina Boehm-Fischer and Luzi Monica Beyer **Presenter: Annina Böhm-Fischer**, Alice Salomon University of Applied Science, Germany
ED3008-A 15:40-15:55	Emergency Remote Teaching and SEL: Examining Gender and Seniority Differences Nissim Avissar **Presenter: Nissim Avissar**, Kibbutzim College of Education, Israel
ED3016-A 15:55-16:10	From Passive to Active Learning: Enhancing Student Engagement in Teaching with the Classpoint App Ahmad Al janadbah **Presenter: Ahmad Al janadbah**, Zayed Uninersity, UAE
ED1114 16:10-16:25	A Systematic Analysis of Machine Learning Studies in Education Şule Taşlı Pektaş **Presenter: Şule Taşlı Pektaş**, OSTIM Technical University, Turkey
ED1099 16:25-16:40	Learning User Interface Design for Smart Learning Environment Masashi Katsumata **Presenter: Masashi Katsumata**, Nippon Institute of Technology, Japan
ED1191 16:40-16:55	Use of Virtual Reality for Education and Training of Emergency Rescue System for Crisis Situations Miroslav Bednář, Patrik Dufek, Alena Lochmannová, Michal Šimon and Marek Bureš **Presenter: Miroslav Bednář**, University of West Bohemia in Pilsen, Czech Republic
ED1094 16:55-17:10	From Paper to Pixels: An Investigation of the Feasibility and Acceptability of QR Code Attendance-Taking in A Higher Education Setting Tee Hean Tan, Shiau Foong Wong, Shalini Nagaratnam, Muhammad Naeim Mohd Aris and Wooi Keong Yong **Presenter: Tee Hean Tan**, Sunway University, Malaysia

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Onsite Session 2

	Topic: E-Learning System, Active Learning, and Technology-Enhanced Learning Session Chairs: Dr. Cristina Galvan, University of Barcelona, Spain Dr. Marc Fuertes, University of Barcelona, Spain Time: 15:25-17:25, September 27, 2023 Onsite Room: Room 12
	*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.
ED3007-A 15:25-15:40	Is Distance Learning Inferior in the Field of Caring Professions? Longitudinal Evidence from Germany's Largest State University During and after the Pandemic Benjamin Fuchs and Magdalena Kaufmann **Presenters: Benjamin Fuchs and Magdalena Kaufmann**, Alice-Salomon-Hochschule Berlin, Germany
ED4006-A 15:40-15:55	Best Practices in Choosing a Learning Management System Kelley Walters **Presenter: Kelley Walters**, Western Governors University, United States
ED1090-A 15:55-16:10	Development of e-Learning System for Chinese Front nasal and Back nasal Pronunciations Akemi Hoshino **Presenter: Akemi Hoshino**, National Institute of Technology, Toyama College, Japan
ED1105 16:10-16:25	Design and Development of a Social Micro-Learning Platform in the context of Tactile Learning Materials for Students with Visual Impairments Daniela Duh, Bernhard Göschlberger, Michael Boch, Georg Graser, Miriam Gross, Andrea Pitzschke and Eva Sengschmid **Presenter: Daniela Duh**, Research Studios Austria FG, Austria
ED1038 16:25-16:40	MVR-RCM: An Approach to Recommend Microlearning Videos in Informal Online Learning Environment Shin-Yan Chong, Fang-Fang Chua and Tek-Yong Lim **Presenter: Fang-Fang Chua**, Multimedia University, Malaysia
ED1008 16:40-16:55	Video-based SRL Program for Teachers and Students Afrah Assi and Anat Cohen **Presenter: Afrah Assi**, Tel-Aviv University, Isreal
ED1174-A 16:55-17:10	A Technical Solution for Evaluating the School as a Learning Organisation Approach in A General Education School Gunta Siliņa Jasjukevica, Inese Lūsēna-Ezera and Laura Hofmane **Presenter: Gunta Silina-Jasjukevica**, University of Latvia, Latvia
ED1183 17:10-17:25	Do Learning Analytics Promote Schools as Learning Organisations? A Case Study of Latvia Inese Lūsēna-Ezera, Gunta Siliņa-Jasjukeviča, Diāna Līduma and Oskars Kaulēns **Presenter: Inese Lūsēna-Ezera**, Liepaja University, Latvia

Onsite Session 3

	Topic: Digital Learning Platform and Online Learning Session Chair: Dr. Silvia Alcaraz, Universitat de Barcelona, Spain Time: 15:25-17:25, September 27, 2023 Onsite Room: Room 13	
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED1032 15:25-15:40	Learning Together. Can the Number of Participants Improve the Performance of a Large Group? An Experimental Anal Ysis in the Collective Learning Platform Santos Orejudo, Carmen Elboj, Javier Fernandez and Pablo Bautist **Presenter: Santos Orejudo**, University of Zaragoza, Spain
ED1035 15:40-15:55	Collective Intelligence as a Learning Method and Its Pedagogical Applications through Online Collaborative Work Platforms Pablo Bautista, Alejandro Rivero and Javier Fernandez **Presenter: Javier Fernandez**, Kampal Data Solutions, Spain
ED1036 15:55-16:10	Analysis of Emotional Responses of Students Participating in a Collective Intelligence Experiment Santos Orejudo, Raquel Lozano, Monserrat Aiger and Ana Belen Cebollero Salinas **Presenter: Raquel Lozano Blasco**, University of Zaragoza, Spain
ED3015-A 16:10-16:25	Face-To-Face, Distance, and Hybrid Education: Changing the Educational Behaviour of Poles and Adaptation Strategies of the Training Sector Barbara Worek and Wojciech Kubica **Presenters: Barbara Worek and Wojciech Kubica**, Jagiellonian University, Poland
ED1206 16:25-16:40	Design and Implementation of an Online Professional Development Course on Climate Change Education in Spain Silvia Alcaraz and Mario Barajas **Presenter: Silvia Alcaraz**, Universitat de Barcelona, Spain
ED1014 16:40-16:55	Investigation of UYCEP Edu Education Portal Caglar Cetinkaya, Evren Sezgin and Cihat Akkiraz **Presenter: Caglar Cetinkaya**, Akdeniz Universitesi, Turkey
ED1037 16:55-17:10	Project-oriented Teaching Approach of Decentralised Applications for Undergraduate Students Sandi Gec, Petar Kochovski, Vlado Stankovski and Dejan Lavbič **Presenter: Sandi Gec**, University of Ljubljana, Slovenia
ED1149-A 17:10-17:25	Team-Maker: A Tool for Team Formation and Research Matthew W. Ohland, Misty L. Loughry and David J. Woehr **Presenter: Matthew W. Ohland**, Purdue University, United States

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Onsite Session 4

Topic: Personalized Learning, Educational Data Mining, and Learning Analytics Session Chair: Dr. Nashwa Ismail, University of Liverpool, UK Time: 10:00-11:30, September 28, 2023 Onsite Room: Room 11	
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED1027-A 10:00-10:15	Unboxing the Blackbox: Learnings from the ALS Pilot Jiunn Huat Soo and Ioana Ghergulescu **Presenters: Jiunn Huat Soo and Ioana Ghergulescu**, Ministry of Education, Singapore and Adaptemy, Ireland
ED1176 10:15-10:30	Estimating Answer Strategies using Online Handwritten Data: A Study using Geometry Problems Kazuaki Okada, Masashi Kudo and Hayato Yamana **Presenter: Masashi Kudo**, Waseda University, Japan
ED1012 10:30-10:45	Research on the Characteristics of Group Cognitive Engagement in Collaborative Learning Zihan Guo, Yuxin Li, Lei Wu and Fati Wu **Presenter: Zihan Guo**, Beijing Normal University, China
ED1115 10:45-11:00	A Comparative Study on Converting Educational Materials into OER: ConvOERter vs. Manual Lubna Ali, Rene Roepke and Ulrik Schroeder **Presenter: Lubna Ali**, RWTH Aachen University, Germany
ED1051-A 11:00-11:15	Using AI to Teach Soft Skills in Virtual Learning Enviornments Kelly Poppe-Gale and Kimberly Reed **Presenters: Kelly Poppe-Gale and Kimberly Reed**, Northcentral Technial College, United States
ED1170 11:15-11:30	Virtual Reality-Based (VR-Based) STEM Curriculum Design Improving Female Participation in STEM Education Bihan Dong **Presenter: Bihan Dong**, Xi'an Jiatong-Liverpool University, China

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Onsite Session 5

Topic: Artificial Intelligence in Education and Human-Centered Computing Session Chair: Assoc. Prof. Raffaele di Fuccio, Pegaso Online University, Italy Time: 10:00-11:45, September 28, 2023 Onsite Room: Room 12	
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED1028 10:00-10:15	Once Upon a Time there was an Ozobot: Storytelling with Educational Robots Sara Hinterplattner, Eva Schmidthaler, Jakob Skogø, Sarah Leitner and Barbara Sabitzer **Presenter: Sara Hinterplattner**, Linz Institute of Technology, Austria
ED1159-A 10:15-10:30	Behavioural Change through AI-Driven Scenarios: An Electronic Narrative Experience Juan Carlos Sanchez Lozano **Presenter: Juan Carlos Sanchez Lozano**, Independent Researcher, Spain
ED3024-A 10:30-10:45	Reskilling, Upskilling and Higher Education Curriculum Development Kelley Walters **Presenter: Kelley Walters**, Western Governors University, United States
ED1117 10:45-11:00	Enabling Visually Disabled Persons to Create Technical Drawings: A Review with a Preliminary Contribution Vítor Carvalho and Diamantino Freitas **Presenter: Vítor Carvalho**, University of Porto, Portugal
ED1154 11:00-11:15	Prototyping of a walking assistance system for visually impaired people using AI and LiDAR Yasuyuki Murai, Yumiko Ota and Hisayuki Tatsumi **Presenter: Yasuyuki Murai**, Nihon Pharmaceutical University, Japan
ED1143 11:15-11:30	Impact of Dark Mode on the User Experience of Productivity-oriented Applications Robert Zebec and Karsten Huffstadt **Presenter: Robert Zebec**, Technical University of Applied Sciences Würzburg-Schweinfurt, Germany
ED1100 11:30-11:45	Automatic Classification of Interactive Texts in Design Thinking Zhaoxue Wang, Haolin Zheng and Fati Wu **Presenter: Zhaoxue Wang**, BeiJing Normal University, China

Onsite Session 6

Topic: STEM Education, Computer Science Education, and Education Management
Topic: STEM Education, Computer Science Education, and Education Management   **Session Chair: Dr. Cristina Galvan, University of Barcelona, Spain**   **Time: 10:00-11:45, September 28, 2023**   **Onsite Room: Room 13**
*Presenters are recommended to enter the meeting room 10 mins in advance.   **Presenters are recommended to stay for the whole session in case of any absence.   ***After the session, there will be a group photo for all presenters in this session.

ED1107 10:00-10:15	Problem Based Learning for Training in Statistics and Artificial Intelligence to Biomedical Engineers Beatriz López, Gloria Mateu and Yenny Leal **Presenter: Beatriz López**, University of Girona, Spain
ED1053 10:15-10:30	Trends and Challenges of Project Based Learning in Computer Science and Engineering Education Sadaqat Ur Rehman **Presenter: Sadaqat Ur Rehman**, University of Salford, UK
ED1156 10:30-10:45	The "COOL Clubs" - Supporting gifted primary school students in STEAM Michaela Schwinghammer, Daniela Milisic, Eva Schmidthaler and Barbara Sabitzer **Presenter: Michaela Schwinghammer**, Johannes Kepler University Linz, Austria
ED1140 10:45-11:00	Academic Program Simulation Tool a New Approach to Strategic Planning in Higher Education Vasileios Asteriou, Lefteris Angelis, Stavros Demetriadis, Petros Nicopolitidis, Georgios Papadimitriou, Ioannis Stamelos and Thrasyvoulos Tsiatsos **Presenter: Vasileios Asteriou**, Aristotle University of Thessaloniki, Greece
ED3010-A 11:00-11:15	Home Education in the Czech Republic from the Perspective of Mothers-Educators Veronika Klapálková and Tereza Komárková **Presenters: Veronika Klapálková and Tereza Komárková**, Charles University, Czech Republic
ED1011 11:15-11:30	Teaching-Assistant Robot Tutoring Students in the Classroom Kazuyoshi Yoshino and Shanjun Zhang **Presenter: Kazuyoshi Yoshino**, Kanagawa Institute of Technology, Japan
ED3017-A 11:30-11:45	Development and Analysis of Critical Thinking through Intellectual Standards of Richard Paul Sumaira Rashid **Presenter: Sumaira Rashid**, University of the Punjab, Pakistan

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Online Session 1

Topic: Education Data Mining and Learning Analytics Session Chair: Assoc. Prof. Diamantino Freitas, University of Porto, Portugal Time: 15:25-17:25, September 27, 2023 (UTC+2) Online Room A: 893 3215 2596 (Passcode: 2023)	
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED1095 15:25-15:40	Intelligent E-Learning and Digital Library System Based on Big Data Analysis Jing Zhang **Presenter: Jing Zhang**, Northwest University, China
ED1142 15:40-15:55	Building an Instructional Design Model for Human-AI Collaboration Grounded in Activity Theory Feiyu Tian and Shaoqing Guo **Presenter: Feiyu Tian**, Northwest Normal University, China
ED1026 15:55-16:10	Genetic Programming-Enabled Prediction for Students Academic Performance in Blended Learning Rui Chen, Fan Lai, Yanmei Li and Xuan Wang **Presenter: Xuan Wang**, Southwest University, China
ED1129 16:10-16:25	Priority Factors to Support the Adaptive Mentorship Model in Higher Education Antonio R. Ramos-Díaz, Juan J. Franklin-Uraga, Lydia Velázquez-García and Antonio Cedillo-Hernández **Presenter: Antonio R. Ramos-Díaz**, Tecnológico de Monterrey, Mexico
ED1068 16:25-16:40	Constructing Guiding Principles for the Framework of Culturally Responsive Pedagogy-guided Personal Learning Environments in Higher Education Yilin Sun, Xiaoshu Xu and Yunfeng Zhang **Presenter: Yilin Sun**, Seattle Colleges, United States
ED1184 16:40-16:55	Assessment in Virtual Higher Education in the Face of Artificial Intelligence Jesús Enrique Beltrán Virgüez, Diana Geraldine Jimenez Garcia and Sandra Patricia Parada Fonseca **Presenter: Jesús Enrique Beltrán Virgüez**, Corporación Universitaria Minuto de Dios, Colombia
ED1093 16:55-17:10	Scalable Two-Minute Feedback: Digital, Lecture-Accompanying Survey as a Continuous Feedback Instrument Armin Egetenmeier and Sven Strickroth **Presenter: Armin Egetenmeier**, LMU Munich, Germany
ED4012 17:10-17:25	Study of Case: Incidence of the Transformational Leadership style in the Knowledge Tests of Colegio Parques de Bogotá (IDE) Jesús. Mantilla, Juan. Lagos and Brayan. Agudelo **Presenter: Jesús. Mantilla**, Corporación Universitaria Minuto de Dios, Colombia

Online Session 2

Topic: Blended Learning, Blended Teaching, and Flipped Classroom Session Chair: Assoc. Prof. Bo Qin, Shenyang Jianzhu University, China Time: 15:25-17:25, September 27, 2023 (UTC+2) Online Room B: 889 9382 6644 (Passcode: 2023)	
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED2003 15:25-15:40	Corpus-based Writing Pedagogy of Quality Education Shuo Zhao and Liu Fan **Presenter: Shuo Zhao**, Communication University of China, China
ED1203 15:40-15:55	The Influence on Undergraduate Students' Critical Thinking Skills through the Integration of Outside-In Blended Learning Activities in Problem-Based Learning Environment Qingzhu Ye and Alex Wing Cheung Tse **Presenter: Qingzhu Ye**, The University of Hong Kong, China
ED1046 15:55-16:10	Knowledge Graph Analysis of Digital Teaching Evaluation Research: A Bibliometric Study Based on WoS Ruiman Xu **Presenter: Ruiman Xu**, Shaanxi University of Science and Technology, China
ED1033 16:10-16:25	An Educational Model for Teaching PLC Programming incorporating Soft Skills Israel Zamora-Hernandez, Miguel X. Rodriguez-Paz and Jorge A. González-Mendívil **Presenter: Israel Zamora-Hernandez**, Tecnologico de Monterrey, Mexico
ED1086 16:25-16:40	Teach Students to Study Using Quizzes, Study Behavior Visualization, and Reflection: A Case Study in an Introduction to Programming Course Marcia Moraes, Albert Lionelle, Sudipto Ghosh and James Folkestad **Presenter: Marcia Moraes**, Colorado State University, United States
ED1205 16:40-16:55	Authorship Identification Methods in Automation of Student Works Checking Ilya Trukhanovich **Presenter: Ilya Trukhanovich**, Belarusian State University of Informatics and Radioelectronics, Belarus
ED1081 16:55-17:10	Gamification in Higher Education: Learning Computer Science with an Escape Room Lydia Velazquez-Garcia, Antonio Cedillo-Hernandez and Eduardo A. Cendejas-Castro **Presenter: Antonio Cedillo-Hernandez**, Tecnologico de Monterrey, Mexico
ED1043 17:10-17:25	Overcoming Teaching Challenges in Online Media Production Courses Semih Bedir and Mariah Hagadone-Bedir **Presenter: Semih Bedir**, University of Dayton, USA

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Online Session 3

<table>
<tr>
<td colspan="2">
Topic: Artificial Intelligence in Education and AI-Based Teaching
Session Chair: Assoc. Prof. Heng Luo, Central China Normal University, China
Time: 07:00-08:45, September 28, 2023 (UTC+2)
Online Room A: 893 3215 2596 (Passcode: 2023)
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<td>ED1171
07:00-07:15</td>
<td>Educational Technology in the Post-Pandemic Era: Current Progress, Potential, and Challenges
Zhuojing Zhang and Sarrah Wasie
Presenter: Zhuojing Zhang, Liberty University, United States</td>
</tr>
<tr>
<td>ED1088
07:15-07:30</td>
<td>Reflection on Online Teaching and Learning – Make It Entertaining, and I will Learn!
Enosha Hettiarachchi
Presenter: Enosha Hettiarachchi, University of Colombo, Sri Lanka</td>
</tr>
<tr>
<td>ED1148
07:30-07:45</td>
<td>The Application Landscape and Research Status of Artificial Intelligence in Language Learning: A Visual Analysis
Xiaojiao Chen, Keke Zhu, Yuhui Jing and Chengliang Wang
Presenter: Xiaojiao Chen, Zhejiang University of Technology, China</td>
</tr>
<tr>
<td>ED1193
07:45-08:00</td>
<td>Research on the Construction of Intelligent Programming Platform Based on AI-generated Content
Hao Wu, Daidong Fa, Xiaoling Wu, WeiJun Tan, Xiwen Chang, Ying Gao and Jinta Weng
Presenter: Hao Wu, Guangzhou University, China</td>
</tr>
<tr>
<td>ED1190
08:00-08:15</td>
<td>Blended Teaching Construction based on Learning Circle Theory—A Case Study of Educational Information Technology Curriculum
Shuo Wang and Tianwei Xu
Presenter: Shuo Wang, Nationalities Yunnan Normal University, China</td>
</tr>
<tr>
<td>ED1024
08:15-08:30</td>
<td>Development History and Frontier Trends of Natural Language Processing Technology in Education: A Knowledge Graph-Based Visualization Analysis
Hanbing Xue
Presenter: Hanbing Xue, Shandong Normal University, China</td>
</tr>
<tr>
<td>ED1077
08:30-08:45</td>
<td>Research on the Digital Literacy Model Construction and Practice of Higher Vocational Students in the Digital Era
Shian Huang, Jing Xu, Qi Sang and Zeguo Shao
Presenter: Shian Huang, Wuxi Vocational Institute of Commerce, China</td>
</tr>
</table>

The 15th International Conference on Education Technology and Computers
The 14th International Conference on Distance Learning and Education (ICDLE 2023)
September 26-28, 2023

Online Session 4

	Topic: Virtual Learning and Technology-Enhanced Learning Session Chair: Assoc. Prof. Hui-Yu Yang, Guangdong University of Petrochemical Technology, China Time: 07:00-08:45, September 28, 2023 (UTC+2) Online Room B: 889 9382 6644 (Passcode: 2023)	
	*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED2004 07:00-07:15	Analysis of the Course Design of "Financial Analysis" Based on Big Data Technology Chunmei Bai and Ziyi Yang **Presenter: Chunmei Bai**, Modern College of Northwestern University, China	
ED1047 07:15-07:30	Design and Application of AR-based 3D Courseware for Elderly Education Jiefei Chen **Presenter: Jiefei Chen**, Jingan Branch Campus, ShangHai Open University, China	
ED1185 07:30-07:45	Characteristics and Development Trend of Learning Motivation in International Blended Learning Environment---Visual Analysis Based on Web of Science Literature from 2011 to 2021 Xuexue Gao, Na Zhu, Yu Zeng, Yuhan Dong, Wenshuang Ge and Shutian Liu **Presenter: Yuhan Dong**, Shaanxi Normal University, China	
ED1085 07:45-08:00	The Student-Centered Virtual E-Learning Community Model: A Case Study on Digital Philosophy Club Gang Li and Xiaoyue Li **Presenter: Xiaoyue Li**, Shenyang Jianzhu University, China	
ED2005 08:00-08:15	Collaboration and Orchestration in a Virtual Teaching Organization for Environmental Education Fenghua Li, Mei Wang, Chunfang Zhou, Maria Inmaculada Navarro Gonzalez, Chong Han and Yong Li **Presenter: Fenghua Li**, Northeastern University, China	
ED1075 08:15-08:30	Evaluation of Factors Affecting Actual Use of Virtual Laboratories Among Senior High School in the Near End of the COVID-19 Pandemic Ardvin Kester S. Ong, Jan Gabriel I. Garbo and Ma. Janice J. Gumasing **Presenter: Ardvin Kester S. Ong**, Mapúa University, Philippines	
ED1195 08:30-08:45	An Experimental Study of ChatGPT-Assisted Improvement of Chinese College Students' English Reading Skills: A Case Study of Dear Life Xiya Wang and Yang Feng **Presenter: Yang Feng**, Zhejiang International Studies University, China	

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The 15th International Conference on Education Technology and Computers
The 14th International Conference on Distance Learning and Education (ICDLE 2023)
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Online Session 5

<table>
<tr><td colspan="2" align="center">**Topic: ICT Integrated Education and Digital Teaching**
Session Chair: Prof. Mike Joy, University of Warwick, UK
Time: 10:00-12:15, September 28, 2023 (UTC+2)
Online Room A: 893 3215 2596 (Passcode: 2023)</td></tr>
<tr><td colspan="2">*Presenters are recommended to enter the meeting room 10 mins in advance.
**Presenters are recommended to stay for the whole session in case of any absence.
***After the session, there will be a group photo for all presenters in this session.</td></tr>
<tr><td>ED1052
10:00-10:15</td><td>Game-Based Learning to Enhance Students Logical Thinking Abilities in Primary School Mathematics
Huilin Liang and Jirarat Sitthiworachart
Presenter: Huilin Liang, King Mongkut's Institute of Technology Ladkrabang, Thailand</td></tr>
<tr><td>ED1200
10:15-10:30</td><td>Quasi-Experiment: Impact of Learning with Digital Storytelling on Grade Eight Students' Self-Efficacy in Physics in Mainland China
Jinghan Ren and Alex Wing Cheung Tse
Presenter: Jinghan Ren, The University of Hong Kong, China</td></tr>
<tr><td>ED1172
10:30-10:45</td><td>Project Driven Practical Teaching Reform Based on U+EEC - Taking the Course "Engineering Training II" as an Example
Xin Wang, Mingxing Du, Jinglei Zhang and Xiaoping He
Presenter: Xin Wang, Tianjin University of Technology, China</td></tr>
<tr><td>ED1155
10:45-11:00</td><td>Construction and Practice of Computational Thinking Structural Framework with Sternberg's Intellectual Education Theory
Wei Zhang, Lingling Song, Xujun Huang and Yi Wang
Presenter: Lingling Song, Central China Normal University, China</td></tr>
<tr><td>ED1168
11:00-11:15</td><td>Research on the Application of VR Technology into Practical Teaching Course, Taking the Artistic Human Anatomy Course of Design Specialty as an Example
Manyu Zhang
Presenter: Manyu Zhang, Tianjin Academy of Fine Arts, China</td></tr>
<tr><td>ED1201
11:15-11:30</td><td>A Teacher Action Recognition Model Based on Pre-Trained Language and Video Model
Sen Luo, Juxiang Zhou, Xiaoyu Wen and Hao Li
Presenter: Sen Luo, Yunnan Normal University, China</td></tr>
<tr><td>ED1194
11:30-11:45</td><td>Digitalized Foreign Languages Teaching Reform in Chinese Universities: An Experiment on the Application of the Multilingual Database Platform
Yang Feng and Xiya Wang
Presenter: Yang Feng, Zhejiang International Studies University, China</td></tr>
<tr><td>ED1178
11:45-12:00</td><td>Caring for Visually Impaired Children: A Novel Multi-Sensory Educational Teaching Toy
Bowen Zhang, Yue Qiu, Yuxin Tian
Presenter: Bowen Zhang, Beijing Institute of Technology, China</td></tr>
<tr><td>ED1106
12:00-12:15</td><td>Exploring the Attitudes of University Students Towards Using Flipped Classroom Strategy
Fahad AlKhezzi and Zahraa Abu Alloul
Presenter: Zahraa Abu Alloul, Kuwait University, Kuwait</td></tr>
</table>

Online Session 6

Topic: Online Learning and Students' Attitudes towards Online Learning Session Chair: Assoc. Prof. Cecilia Goria, University of Nottingham, UK Time: 10:00-12:15, September 28, 2023 (UTC+2) Online Room B: 889 9382 6644 (Passcode: 2023)	
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.	
ED1074 10:00-10:15	A Structural Equation Modeling Analysis for Online Learning Satisfaction in the Philippines Ardvin Kester S. Ong, Jan Gabriel I. Garbo and Josephine D. German **Presenter: Ardvin Kester S. Ong**, Mapúa University, Philippines
ED1082 10:15-10:30	Impact of Role Assignment and Time-Frame on Asynchronous Online Discussion: A Quasi-Experiment Mindi Wang, Yumu Li, Zhili Zhang, Panpan Duan, Xiang Li, Yanan Wang, Ling Jiang and Heng Luo **Presenter: Mindi Wang**, Central China Normal University, China
ED1137 10:30-10:45	Research on the Relationship Between Learning Engagement and Learning Performance in Online Learning Longcheng Lin and Fang Wang **Presenter: Longcheng Lin**, Nantong Health college of Jiangsu Province, China
ED1015 10:45-11:00	An Empirical Study on Student Satisfaction of Smart Classroom Use Huiling Su, Ziqi Yan, Yingying Luo, Xuerou Zhao and Lichun Liu **Presenter: Huiling Su**, Xiamen University, China
ED1109 11:00-11:15	The Influence of Creating and Sharing English Video on Social Media Platform on the Willingness to Communicate in English of Chinese Sophomore Majoring in English: A Case Study Yanwen Zheng and Alex Wing Cheung Tse **Presenter: Yanwen Zheng**, Hongkong University, China
ED1050 11:15-11:30	Language, Culture, Information and Curriculum: A Case Study of Developing Students' Information Literacy and Global Communicative Competence Li Cheng **Presenter: Li Cheng**, Beijing University of Posts and Telecommunications, China
ED1113 11:30-11:45	A Novel Two-Stage Personalized Learning Path Recommendation Approach for E-learning Yaqian Zheng, Yaping Xu, Deliang Wang, Sirui Chen, Mingze Sun, Yanyan Li and Fan Gao **Presenter: Yaqian Zheng**, Beijing Normal University, China
ED1073 11:45-12:00	Antecedent Determination of Factors Affecting Online Learning Experience Among Primary Students Using Random Forest Classifier Ardvin Kester S. Ong, Jan Gabriel I. Garbo and Alberto C. Villaluz **Presenter: Ardvin Kester S. Ong**, Mapúa University, Philippines
ED1091 12:00-12:15	Automatic Recognition and Analysis of Academic Emotions Based on Facial Expressions during Online Learning Environments Yaping Xu, Yaqian Zheng, Keru Li and Yanyan Li **Presenter: Yaping Xu**, Beijing Normal University, China

Online Session 7

<table>
<tr><td colspan="2">Topic: Computer Science Education and Cultivation of Computational Thinking
Session Chair: Assoc. Prof. Li Cheng, Beijing University of Posts and Telecommunications, China
Time: 13:30-15:45, September 28, 2023 (UTC+2)
Online Room A: 893 3215 2596 (Passcode: 2023)</td></tr>
<tr><td colspan="2">*Presenters are recommended to enter the meeting room 10 mins in advance.
**Presenters are recommended to stay for the whole session in case of any absence.
***After the session, there will be a group photo for all presenters in this session.</td></tr>
<tr><td>ED1056
13:30-13:45</td><td>Automatic Topic Terms Identification from OER
Veronica Segarra-Faggioni and Audrey Romero-Pelaez
Presenter: Veronica Segarra-Faggioni, Universidad Tecnica Particular de Loja, Ecuador</td></tr>
<tr><td>ED1136
13:45-14:00</td><td>The Effects of a Progressive Scaffolding Approach on Middle School Students' Computational Thinking Skills and Self-Efficacy
Feifei Xi, Tianyu Xiao, Xiaofei Li, Yafei Hu and Hongliang Ma
Presenter: Xiaofei Li, Shaanxi Normal University, China</td></tr>
<tr><td>ED1152
14:00-14:15</td><td>Do Current Online Coding Tutorial Systems Address Novice Programmer Difficulties?
Ohud Alasmari, Jeremy Singer and Mireilla Bikanga Ada
Presenter: Ohud Alasmari, University of Glasgow, UK</td></tr>
<tr><td>ED1031
14:15-14:30</td><td>Addressing Misconceptions in Introductory Programming: Automated Feedback in Integrated Development Environments
Björn Fischer, Fabian Birk, Eva-Maria Iwer, Sven Eric Panitz and Ralf Dörner
Presenter: Björn Fischer, RheinMain University of Applied Sciences, Germany</td></tr>
<tr><td>ED1042
14:30-14:45</td><td>E-assessment in Computer Science Higher Education
Safiah Alamr, Manuel Urrutia and Leslie Carr
Presenter: Manuel Urrutia, University of Southampton, UK</td></tr>
<tr><td>ED1089-A
14:45-15:00</td><td>Teachers' Perspectives on a Constructionist Approach to Teaching Computational Thinking
Simona Holstein and Anat Cohen
Presenter: Simona Holstein, Tel Aviv University, Israel</td></tr>
<tr><td>ED1211
15:00-15:15</td><td>Exploring the Potential of a Pronunciation Guide App to Support Non-Native Speaking Students in Higher Education
David Western
Presenter: David Western, University of the West of England, UK</td></tr>
<tr><td>ED1121
15:15-15:30</td><td>Promoting Scientific Inquiry in Physics Students through the Use of Simulators
Benjamín Maraza-Quispe, Nicolás Esleyder Caytuiro-Silva, Erick Abel Arizaca-Machaca, Diego Alonso Condori Huaracha, Fernando Pacori Aviles and Walter Cornelio Fernandez Gambarini
Presenter: Nicolás Esleyder Caytuiro Silva, Universidad Católica de Santa María de Arequipa, Perú</td></tr>
<tr><td>ED1210
15:30-15:45</td><td>Exploring Teachers' Perceived Competence in STEM Education in a National Pilot Middle School of STEM Education in Mainland China
Chunyang Liao and Alex Wing Cheung Tse
Presenter: Chunyang Liao, The University of Hong Kong, China</td></tr>
</table>

Online Session 8

	Topic: STEM Education and Education Management Session Chair: Mr. Piergiorgio Guarini, University of Foggia, Italy Time: 13:30-15:45, September 28, 2023 (UTC+2) Online Room B: 889 9382 6644 (Passcode: 2023)
*Presenters are recommended to enter the meeting room 10 mins in advance. **Presenters are recommended to stay for the whole session in case of any absence. ***After the session, there will be a group photo for all presenters in this session.
ED1199 13:30-13:45	A Survey of Pre-service and In-service Biology Teachers' Technological Pedagogical Content Knowledge (TPACK) in Implementing STEM Education Fei Chen and Alex Wing Cheung Tse **Presenter: Fei Chen**, The University of Hong Kong, China
ED1034 13:45-14:00	How Academic Training in STEM Helps to Break Gender Barriers after Graduation Israel Zamora-Hernandez, Miguel X. Rodriguez-Paz and Jorge A. González-Mendívil **Presenter: Israel Zamora-Hernandez**, Tecnologico de Monterrey, Mexico
ED1128 14:00-14:15	Visualizing the Landscape of Doctoral Education in China over a Decade: A Scientometric Analysis Using CiteSpace and VOSviewer Jie Lin and Xin Luo **Presenter: Jie Lin**, Shanghai Jiao Tong University, China
ED1001 14:15-14:30	Research on the Influencing Factors of the Precise Supply of Rural Vocational Education Under the Strategy of Rural Revitalization Bing Xiao and Xuelan Ma **Presenter: Xuelan Ma**, Guangdong Polytechnic Normal University, China
ED1040 14:30-14:45	Towards a Descriptive Language to Explicitly Define the Activities' Dependencies in Project-Based Learning Youcef Haddou, Omar Talbi, Abdelkader Ouared and Abdelhafid Chadli **Presenter: Youcef Haddou**, University of Tiaret, Algeria
ED1076 14:45-15:00	The Mediation Effect of Teacher Efficacy Between Professional Development and Teacher Stress: An Empirical Study to Investigate Their Relationship Xun Bu **Presenter: Xun Bu**, Shanghai Normal University Tianhua College, China
ED1118 15:00-15:15	Promoting Educational Innovation in Engineering Through the Design of a Student Centered and Technology Mediated Formative Proposal Carolina Parra Estrada **Presenter: Carolina Parra Estrada**, Corporación Universitaria Minuto de Dios, Colombia
ED1202 15:15-15:30	The Professional Identity of Primary Mathematics Teachers and Their Intention to Implement STEM Education in Mainland China Ruoying Xie and Alex Wing Cheung Tse **Presenter: Ruoying Xie**, The University of Hong Kong, China
ED3012 15:30-15:45	Human and Technology Mediation for Effective Blended Learning in Digital Higher Education El Hadji Yaya Koné **Presenter: El Hadji Yaya Koné**, University of Ottawa, Canada