



# PROCEEDINGS OF ICIEI 2019

The 4th International Conference  
on Information and Education Innovations

July 10-12, 2019  
Durham, United Kingdom



The Association for Computing Machinery  
2 Penn Plaza, Suite 701  
New York New York 10121-0701

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**ACM ISBN:** 978-1-4503-7169-8

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## Preface

The organising committee and I are pleased to present to our readers the ACM proceedings of the 4<sup>th</sup> International Conference on Information and Education Innovations (ICIEI 2019), which took place during July 10-12, 2019, at Durham University, UK.

Following the trends of current educational research, we had motivational keynote talks on 'Optimisation Techniques and Applications' (Prof. Xin-She Yang, Middlesex University, UK), on 'Learning Analytics: the State of the Art' (Prof. Alexandra I. Cristea, Durham University, UK).

We wish to thank our Programme Committee for their care in selecting the accepted papers. Their hard work ensured that we had a great selection of speakers, ranging from well-known, established researchers up to very young researchers, which is very commendable, and a proof of the viability of this overall research area for the future. Selected papers ranged across continents, from Europe, North America, South America, Asia. Countries of speakers included China, Thailand, United Kingdom, Indonesia, United States, Costa Rica, Germany, Italy, Russia and Saudi Arabia. Innovations in Education were proposed starting from or targeted at various stakeholders, looking not only at learners, but also teachers, as well as families, and further towards leadership in education, including country-wide perspectives. In terms of learners, the range was also great, including school children, university students, as well as learners in MOOCs. Learning models studied included Inquiry Learning, Blended Learning, Active Learning, Multimodal Learning, Explanatory Learning. Moreover, in terms of medium of learning or teaching, this included the traditional classroom, extra-curricular activity encounters, e-coaching, learning apps, MOOCs, amongst others. The target of the research was also varied, ranging from students' problem-solving skills, key success indicators, mathematics learning, cross-country comparisons of teacher internship, EFL, Multimodal Literacy, Childish Leadership, effectiveness, ESL, explanatory analysis, communication skills, thinking and problem solving skills and teamwork skills, academic performance, mathematics curriculum, students' problems, clinical guidelines, prediction, learners' demographic characteristics, to sustainable development. The conference boasted excellent speakers with great conviction and aplomb, as well as good discussions for each paper. We especially wish to congratulate Tahani Aljohani, who received the Best Presentation Award for the ICIEI'19 conference.

Looking forward, we are hoping to expand our inclusion of continents and countries, as well as groups of speakers, and attract an even wider range of good quality papers for our next conference in the series.

With warmest regards,

Professor Alexandra I. Cristea

Durham University, UK

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