

ICCSE 2019

The 14th International Conference on
Computer Science and Education

August 19-21, 2019



TORONTO



UNIVERSITY
OF ONTARIO
INSTITUTE OF TECHNOLOGY

Toronto, Ontario, Canada

Invited Sessions Application Form

Topic: *Technology-Inspired Smart Learning*

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Abstract

Smart learning environments are very diverse: massive open online courses with AI assistants, intelligent tutoring systems, interactive learning courseware, learning games, collaborative programming communities, community tutorial systems, personalized exercise programs, tutoring robotics are all examples, especially in off-campus scenarios. A growing number of current campus-based courses in popular fields are also involved. All share a common purpose to increase human potential, leveraging data collection, data analysis, human interaction, and varying forms of computational assessment, adaptation and guidance.

Information technologies have been proposed to the modern smart learning space, but may instead increase the digital divide if applied without reflection. So, further work is needed to understand how to leverage technologies to provide equitable education for all, and many questions remain to be answered. What are the main barriers to providing educational opportunities to underserved teachers and learners? How can AI and advanced technologies help overcome these difficulties? How can this work be done ethically? etc. In this session we gather the collective intelligence of the community to provide innovative and creative solutions, thus try to investigate “Technology-Inspired Smart Learning”.

This session solicits original research paper submissions on methodologies, case studies, analyses, tools, or technologies for smart learning, broadly construed. Four kinds of contributions will be accepted: Research Papers, Synthesis/Review Papers, Work-in-Progress

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Short Papers, and Demonstrations. Topics are included but not limited to:

- Knowledge graph for education
- Big data for learning
- Block chain supported platforms
- Tutoring robotics
- AI assistants/supports
- Interactive/personalized exercise games/systems
- Collaborative programming study tools/integrated platforms
- Information technology standards for education