



## Special Issue:

### **Robotics in STEM Education**

STEM is announced to be the next big thing in the field of education, which is usually cover educational approach that integrates Science, Technology, Engineering and Mathematics. STEM education aims to increase the number of students pursuing advanced degrees and careers in STEM fields, and more specifically, robotics.

Educational robotics can be an effective learning tool proposed as project-based learning where STEM, coding, computer thinking and engineering skills are all integrated in same project. Robotics for students presents opportunities to explore with practice how technology works in real life, all with one tool through the act of making.

This special issue is recommended for STEM teachers, and particularly engineering and robotics instructors. It emphasizes recent research specific to educational robotics, which helps educators construct new understandings and theories.

The special issue is not limited to method presentations, of successful ways to implement educational robotics, but also advises by listing important factors for successful implementation, such as the role of the teacher, the physical space and learning environment, and the didactic approaches for robot design for all students.

Potential topics include but are not limited to the following:

- Robotics in school
- International trends in educational robotics
- Project-based learning and robotics
- Didactic approaches in educational robotics
- Exemplary robotics projects in classes
- Web-based robotics and simulation
- Assessment and evaluation of robotics – enhanced class activities
- Evaluation criteria and tools for measuring the impact of robotics on students' learning
- Teacher training in educational robotics
- Methodologies for teaching robotics
- Robotics competitions/contests and their educational impact

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- Web-based robotics, simulation, remote educational robotics
  - Humanoid robots in education
  - Cognition, natural and automated.

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Papers may be published upon acceptance, regardless of the Special Issue publication date.

### **Editors**

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