

## Editorial

Artificial Intelligence (AI) is present in many aspects of our lives and Education is not an exception. The educational field is changing by continuously developing new theories and methodologies in the learning process, as well as adopting technology to provide personalized learning environments for each student.

Artificial intelligence is part of many computer systems used to teach several topics and the learning environments are moving on providing personalized support to help each student in the learning process, considering previous knowledge, learning styles, emotions and affective states, among other characteristics of students.

Researchers have shown that applying artificial intelligence techniques to educational programs, makes possible to provide software systems that students can use to gain knowledge and learn at their own pace in different virtual or digital environments.

In this volume, we present fifteen research works that apply AI techniques to education in several fields of intelligent learning systems.

At least three members of the Technical Committee reviewed each work to select the chapters presented in this volume. The reviewers took into account the originality, scientific contribution to the field, soundness and technical quality of the papers.

We appreciate the funding provided by RedICA (Conacyt Thematic Network in Applied Computational Intelligence) and we thank its members that were part of the Technical Committee as well as members of Mexican Society of Artificial Intelligence (SMIA Sociedad Mexicana de Inteligencia Artificial). Last, but not least, we thank Centro de Investigación en Computación-Instituto Politécnico Nacional (CIC-IPN) for their support in preparation of this volume.

*María Lucía Barrón Estrada*  
*Ramón Zatarain Cabada*  
*María Yasmín Hernández Pérez*  
*Carlos Alberto Reyes García*  
May 2019