Editorial

Virtual learning environments are available around the world every single day. Since March 2020, we are used to attend virtually many activities and education is not an exception. The SARS-CoV-2 virus provoked that learning activities migrate to virtual environments in all educational levels.

On the other side, Artificial Intelligence has impacted many activities and now we notice that many aspects of our lives have changed due to its non-stopping influence. In Education, we notice the emergence of new systems and apps that help students to learn online at their own peace.

Researchers are innovating by mixing theories and technology to provide learning environments that personalize learning processes for each student.

Researchers have applied several artificial intelligence techniques to develop educational software systems that students can use to gain knowledge and learn at their own pace in different virtual or digital environments. All new developments need to be made known through journals and other forums.

In this volume, our goal is to offer researchers an opportunity to show their work exploring new ways of applying AI techniques in the development of educational systems. We present seven research works, in various fields of intelligent learning systems.

The papers were carefully chosen by the editorial board based on three reviews by the specialists of the Technical Committee. To select the papers to be published the reviewers considered the originality, scientific contribution to the field, soundness, and technical quality of the papers.

Many people participated in preparation of this volume, we appreciate the support of RedICA (Conacyt Thematic Network in Applied Computational Intelligence) members that were part of the Technical Committee as well as members of Mexican Society for 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 and publication of this volume.

María Lucía Barrón Estrada Ramón Zatarain Cabada María Yasmín Hernández Pérez Carlos Alberto Reyes García Guest Editors

October 2021