Editorial

This volume of the journal "Research in Computing Science" contains selected papers related to Hybrid Intelligent Systems (HIS) and its applications. The papers were carefully chosen by the editorial board on the basis of the at least two reviews by the members of the reviewing committee or additional reviewers. The reviewers took into account the originality, scientific contribution to the field, soundness and technical quality of the papers. It is worth noting that various papers for this special issue were rejected.

Hybrid Intelligent Systems try to deal with the complexity of real world phenomena, with a multidisciplinary approach and a plurality of techniques. The complex systems where they are applied cover: education, biology, medicine, logistics, management, security, engineering, humanities, among others. All characterized by the difficulty of modeling their usual problems by classical methods. In this framework, this special issue is aimed at discussing research on working progress with social interactions, by using agents or any artificial intelligence technique. Therefore, it will focus on social simulation and dynamic social network systems. It also covers the Hybrid Systems with the capability to hold a negotiation about a specific topic, demonstrate reputation using diverse models, with argumentation procedures as a way for reaching agreements during the negotiation process.

The volume contains 13 papers about various aspects of HIS in the fields of Simulation and Knowledge Discovery in Databases (KDD). Both topics are very important today, because of its potential applications in a wide variety of business.

Knowledge Discovery in Databases is the process of searching for hidden knowledge in the massive amounts of data that is generated by people, public and private institutions. Data are simply a collection of elements, from which have little or null knowledge. With the development and use of data discovery techniques the value of the data is significantly improved, since you get knowledge that may be hidden.

Simulation is the imitation of a real-world process. To simulate something first requires that a model be developed; this model represents an abstract of behaviors or functions of the system or process to be simulated. Simulation can be used in many contexts, such as engineering, testing, training, education, natural behavior, social behavior, games, among others. The more common simulations use mathematical or computer models.

There are a lot of methods available to extracting patterns that when interpreted, provide an add value to the data, possibly previously unknown, this new knowledge allows us to better describe and understand the stored data. Information can be predictive or descriptive in nature. Data mining stage, the pattern extraction phase of KDD, can take many forms; the choice depends on the desired results. KDD is a multi-step process that facilitates the conversion of data to useful information.

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