Preface to the CLEI 2010 Special Issue

Luca Cernuzzi[1] and Ramon Puigjaner[2]
[1]Universidad Católica "NuestraSeñora de la Asunción", Paraguay,
lcernuzz@uca.edu.py
[2]Universitatde les Illes Balears, Spain, *putxi@uib.cat*

This special issue of the CLEI Electronic Journal consists of extended and revised versions of articles presented at the XXXVI Latin American Conference on Informatics (CLEI 2010), which took place in Asunción, Paraguay, in October 2010.
CLEI 2010 received 380 submissions, from which the program committee has selected 105 for presentation. Among the presented papers we proposed to the authors of the top 11 papers to submit and extended and revised version for the CLEI Electronic Journal. The authors of ten papers decided to accept our invitation. Finally, after a second evaluation round we have selected 8 papers to be published in this special issue.

Three of the selected articles offered contributions to the modeling and information retrieval issues:

- Paper 1, by González, Casariego, Bareiro, Cernuzzi and Pastor, focuses on MDA approach for navigational and user perspectives for Web applications, proposing a notational definition and a metamodel which has been implemented with the AndroMDA tool;
- Paper 2, by Cecchini, Lorenzetti, Maguitman and Menczer, proposes to use topic ontologies and semantic similarity data derived from these ontologies to implement an automatic semantic evaluation framework for information retrieval systems;
- Paper 3, by Guessi, Oliveira and Nakagawa, presents an overview about the extensions of the UML to represent aspect-oriented software systems using the Systematic Mapping technique.

Three articles addressed algorithms for classification, multi-objective, and numerical simulation problems:

- Paper 4, by Cherman, Monard and Metz, proposes a method to transform a multi-label classification problem into several single-label classification problems and compare it with two other well-known methods;
- Paper 5, by Chaparro and Sosa, concerns the application of a Multi-Objective Genetic Algorithm to the electric power systems domain;
- Paper 6, by Duarte, Massot, Descombes, Tenaud, Dumont, Louvet, and Laurent, presents new resolution strategies for the numerical simulation of reaction-diffusion equations.

Finally, two articles deal with the visualization of distributed systems and security of sensor network topics:

- Paper 7, by Guevara, Desell, LaPorte and Varela, introduces a force-directed layout strategy in order to directly exhibit the application communication topologies for OverView, a tool for online/offline distributed systems visualization that enables modular layout mechanisms;
- Paper 8, by Kazienko, Ribeiro, Moraes and Albuquerque, describes an experimental evaluation of a secure key distribution and storage scheme in Wireless Sensor Networks using simulation and practical experiments running

in resource-constrained sensors.

We hope these articles will be valuable contributions to the development of informatics in Latin America.
We would like to thank all people involved in this undertaking, from the authors to the reviewers for their effort and work, and CLEI - Centro Latinoamericano de Estudios en Informática for offering us the opportunity of preparing this special issue.

Finally, we hope you will enjoy the reading!

Luca Cernuzzi and Ramon Puigjaner, special issue editors