# Preface to the CLTD-CLTM 2018-2020 Special Issue

**Andrea Delgado**
Universidad de la República
adelgado@fing.edu.uy

**Luca Cernuzzi**
Universidad Católica "Nuestra Señora de la Asunción"
lcernuzz@uc.edu.py

The scientific development of Computer Science has reached maturity in Latin America; reflected in the numerous graduate programs that currently offer both M.Sc. and Ph.D. degrees. There are numerous accredited postgraduate programs in Informatics or Computer Sciences in Latin America (i.e., Argentina, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela).

To encourage the development of master and doctoral programs, the Latin American Center for Informatics Studies (CLEI), within the framework of its annual conference, has held the Latin American Master Thesis Contest (CLTM) since 1993 and the Doctoral Thesis Contest (CLTD) since 2016. The objective of CLTM and CLTD is to identify and promote the best master and doctoral theses in Informatics, Computer Sciences, or other related areas, from Latin American universities  members of CLEI, in any of the disciplinary areas defined in the computing curricula established by the IEEE / ACM.

In this first special issue we offer the opportunity to publish in CLEI Electronic Journal the summary of the best thesis that won the awards in CLTM and CLTD in the last 3 years (editions 20018, 2019 and 2020). Accordingly, we invited 18 authors corresponding to the 3 winners of CLTM and CLTD of each edition. Some of the authors have preferred not to apply due to reasons such as other publications that already covered its thesis summary or personal reasons due to the elapsed time. As can be seen in the list of thesis summaries published in this issue, there has been a greater number of positive responses from CLTD awardees who naturally continue to pursue a research career. The thesis summaries integrating this special issue are:

– Jandson Santos Ribeiro, "A Visit to Belief Change without Compactness". Universidade de São Paulo, Brazil, 2nd prize CLTD 2020.
– Facundo Quiroga, "Invariance and Same-Equivariance Measures for Convolutional Neural Networks". Universidad de la Plata, Argentina, 3rd prize CLTD 2020.
– Jonathan Muraña, "Empirical power consumption characterization and energy aware scheduling in data centers". Universidad de la República, Uruguay, 2nd. prize CLTM 2020.
– Ernesto Dufrechou, "Accelerating advanced preconditioning methods on hybrid architectures". Universidad de la República, Uruguay, 1st prize CLTD 2019.
– Francisco J. Gutierrez, "Design Guidelines for Socio-Domestic Systems Supporting Informal Elderly Caregiving". Universidad de Chile, Chile, 2nd prize CLTD 2018.

- Fabio Lopez Pires, "Advances on Many-Objective Resource Allocation for Elastic Software-Dened Datacenters". Universidad Nacional de Asunción, Paraguay, 3rd. prize CLTD 2018.
- Ignacio Velásquez, "Framework for the Comparison and Selection of Schemes for Multi-Factor Authentication". Universidad del Bío-Bío, Chile, 2nd prize CLTM 2018.

We would like to thank and congratulate the authors, with their corresponding advisors, hoping they could take a protagonism in the CLEI community in the near future.

We would also like to thank the reviewers of CLTM and CLTD for their anonymous contribution to the evaluation and selection process of each edition as well as the co-chairs of the contests, and the reviewers of this Special Issue for their anonymous contributions to the evaluation and final selection of thesis summaries, which helped us ensured the quality of the publications.

This special issue is paving the way for regular special issues that are expected to be consolidated over time, with selected summaries of thesis from CLTM and CLTD for the next editions of CLEI annual conferences.

We encourage postgraduate students of university members of CLEI to participate in the CLTM and CLDT contests and we hope to improve the visibility of relevant theses from our region.

Hope you enjoy the read!

Andrea Delgado & Luca Cernuzzi
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