

Proceedings

LAWCC 2020

XII Congress of Latin American Women in Computing 2020

XII Congreso de la Mujer Latinoamericana en la Computación

Universidad Técnica Particular de Loja, Ecuador
October 19th, 2020

Editors:

Germania Rodríguez
Universidad Técnica Particular de Loja, Ecuador

Alicia García-Holgado
University of Salamanca, Spain

Editors' addresses:

Department of Computer Science and Electronics
Universidad Técnica Particular de Loja
San Cayetano Alto, Loja, Ecuador

grrodriguez@utpl.edu.ec, aliciagh@usal.es

Copyright © 2020 for the individual papers by the papers' authors. Copyright © 2020 for the volume as a collection by its editors. This volume and its papers are published under the Creative Commons License Attribution 4.0 International (CC BY 4.0).

Preface

The XII edition of the Latin American Women in Computing Congress / XII edición del Congreso de la Mujer Latinoamericana en la Computación (LAWCC) was held as part of the the XLVI Latin American Computer Conference (CLEI). It aims to encourage and visualize the contribution of women in various areas of computing. The papers presented at the congress identify women's challenges in areas related to Computing, Information Technology and Telecommunications (ICT) and STEM (Science, Technology, Engineering and Mathematics) in teaching, in the workplace, in research and society in general. They find ways to address recurring problems related to gender and interaction with society. The topics covered but not exclusive that were proposed for this edition were:

- Analysis of the activity and participation of women in STEM and ICT in general.
- Female participation in scientific and technological events (hackathons, science clubs, etc.).
- Inclusive software development (games, apps and others) with strong participation of women.
- Initiatives to promote gender equity in STEM/ICT.
- Gender and Human-Computer Interaction.
- Women's leadership models and ICT.
- Gender particularities in the development and implementation of ICTs
- Gender particularities in the teaching of STEM/ICT, in the 5 levels: initial, pre-school, primary, secondary and higher education.
- Women's participation in national and international decision making concerning the use of ICT
- Public policies on women and ICTs.

LAWCC was held in virtual mode from October 19th to 23rd because the situation of the COVID-19 crisis has not allowed us to hold the workshop in person. This volume contains 13 papers accepted by the scientific committee of the event through double blind review.

September 2020

Germania Rodríguez
Alicia García-Holgado

Conference Chairs

Germania Rodríguez (Universidad Técnica Particular de Loja, Ecuador)
Alicia García-Holgado (University of Salamanca, Spain)

Scientific Committees

Aletéia Araújo, Universidade de Brasília, Brasil
Ariella Quesada Rosales, Universidad Nacional, Costa Rica
Carina S. González-González, Universidad de La Laguna, Spain
Claudia Cappelli, Universidade Federal do Rio de Janeiro, Brasil
Cristiano Maciel, IComp/UFAM, Brasil
Diana Francisca Adamatti, Universidade Federal do Rio Grande, Brasil
Donna Roper, Universidad de Panama, Panama
Fabiola Guerra Nakamura, Universidade Federal do Amazonas, Brasil
Gabriela Marin, Universidad de Costa Rica, Costa Rica
Genoveva Vargas Solar, CNRS-LIG-LAFMIA, France
Janneth Chicaiza, Universidad Técnica Particular de Loja, Ecuador
Karen Figueiredo, Universidade Federal de Mato Grosso, Brasil
Katty Rohoden, Universidad Técnica Particular de Loja, Ecuador
Lilian Berton, Universidade Federal de São Paulo, Brasil
Luciana Bolan Frigo, Universidade Federal de Santa Catarina, Brasil
Luciana Salgado, Universidade Federal Fluminense, Brasil
Lucy García-Ramos, Universidad del Norte, Colombia
Marcela Varas, Universidad de Concepción, Chile
Maria E. Urquhart, UDELAR, Uruguay
Maria Elena García Diaz, Universidad Nacional de Asunción, Paraguay
Maristela Holanda, Universidade de Brasília, Brasil
Mirella M. Moro, Universidade Federal de Minas Gerais, Brasil
Priscila Valdiviezo, Universidad Técnica Particular de Loja, Ecuador
Rosiane de Freitas, IComp/UFAM, Brasil
Sarajane M., University of São Paulo, Brasil
Silvia Amélia, Meninas Digitais, Brasil
Tanara Lauschner, Universidade Federal do Amazonas, Brasil

Table of contents

Using Student Profiles to Motivate and Understand How to Attract Women to Computer Science Gabriela Marín-Raventós, Rosaura M. Romero and Ana Laura Monge-Soto.....	1 - 12
Iniciativas Educacionais para Permanência das Mulheres em Cursos de Graduação em Computação no Brasil (Educational Initiatives for Women's Permanence in Undergraduate Computing Courses in Brazil) Maristela Holanda, Alice Lima, Alice Borges, Kailany Ketulhe, Aleteia P. F. Araujo and Carla Koike	13 - 24
"Playful STEM-promotion": an Initiative to Encourage STEM Programs in Primary Schools Iyubanit Rodríguez, Michael Arias, Kattia Rodríguez, Laura Coto-Sarmiento and Marielos Murillo-Herrera.....	25 - 36
A Brief Analysis of the Situation of Women in Science, Technology, Engineering and Mathematics Silvia González Pérez	37 - 46
STEM Women in Ecuador: a Proposal to Reduce the Gender Gap Luz Tobar Subía, Victoria Proaño and Carlos Vásquez	47 - 59
Co-creation of BootCamps Focused on Promoting STEM Germania Rodríguez Morales, Alicia García-Holgado, Samanta Patricia Cueva Carrión and Jorge Luis Jaramillo.....	60 - 70
Motivaciones de la Población Femenina en la Elección de la Carrera de Informática: Universidad Nacional de Costa Rica (Motivations of the Female Population in the Election of the Computer Science Career: Universidad Nacional de Costa Rica) Sandra Cabrera A. and Ariella Quesada R.	71 - 81
The Challenge of Inspiring Women Startups in a Latin American Country Donna A. Roper, Carolina Mendoza and Susana Lau.....	82 - 92
Reducing Inequalities in STEM: The Girls in Computer Science Project, Paraíba, Northeast, Brazil Josilene A. Moreira, Giorgia Mattos and Catarina Sales	93 - 104
Ecuadorian Scholarly Production in Computer Science. Analysis of Publication Patterns by Gender Janneth Chicaiza and Ruth Reátegui.....	105 - 115
W-STEAM card game to develop computational thinking Victoria Guimarães, Larissa Pessoa, Ariel Luane Bentes, Raquel Folz, Thiago Melo and Rosiane de Freitas	116 – 127
Carência de Mulheres na Computação: Um Estudo sobre a Relação entre Incentivo x Desinformação (Lack of Women in Computing: A Study on the Relationship between Incentive x Disinformation) Samira Santos da Silva and Sincler Peixoto de Meireles	128 – 139
Mistura de gêneros e habilidades no desenvolvimento de um aplicativo móvel para mulheres em situações de risco (Gender mixing and skills in developing a mobile application for women at risk) Rosiane de Freitas, Juliana Magalhães, Bruna Mariana Souza, Julia Luiza Conceição, Maria Luiza Edwards, Joseph Paz, Leonardo da Silva and Matheus Uchoa	140 - 151