Memorias del XVI Workshop de Ingeniería en Requisitos WER 2013

Del 8 al 10 de Abril, 2013

Universidad ORT Uruguay – Campus Centro

Montevideo, Uruguay

Editores – Chairs de Programa: **Nelly Condori Fernández**

Universidad Politécnica de Valencia – España

Leandro Antonelli

Universidad Nacional de La Plata - Argentina

Organizadores: Universidad ORT Uruguay – Universidad de la República – Antel

Media partner: EL PAIS

Sponsors: GeneXus Consulting – Onetree – Microsoft – Gallito.com – TATA Consultancy Services – MecadoLibre – Globant – Tilsor – UNIT

Support: Centro Latinoamericano de Estudios en Informática – Agencia Nacional de Investigación e Innovación – IEEE Computer Society Capítulo Uruguay – Cámara Uruguaya de Tecnologías de la Información – Gega Multimedios

ISBN: 978-9974-8379-2-8

Message from the General Chair

I cordially welcome you to Montevideo, Uruguay, and to the 16th Iberoamerican Conference on Software Engineering (CIbSE 2013).

From its inception CIbSE is well known to provide a growing forum for those interested in exploring and discovering the advances and research in the field of software engineering in Ibero-america. Trying to follow this tradition, we believe this year conference program has much to offer to researchers, practitioners, students and educators.

As in previous editions, this conference will hold the three traditional tracks covering the areas of Software Engineering, Requirements Engineering, and Experimental Software Engineering; it will also host a Doctoral Symposium, three keynotes and four tutorials. For the first time this year's conference will host an Industry Forum that we hope it will encourage the exchange of experiences between scientists and professionals.

CIBSE is a constantly growing research oriented conference. On this edition there were 36 accepted papers in the three main tracks and we are pleased to have authors representing several countries like Argentina, Brazil, Cuba, Italy, Spain, Peru, Venezuela and Uruguay.

We are fortunate to have three keynotes that span different areas of interest to the software engineering community. Bill Nichols´s keynote will take a deeper look into the stages of quality development using TSP. Carolyn Seaman will address on how the Technical Debt metaphor can be used by practitioners and empirical researchers as a new path to technology transfer. Eduardo Mangarelli and Fernando Machado will bring an industrial perspective on the challenges presented by the complexities that today's applications are expected to manage, and on how these challenges are disrupting the way we engineer software.

Tutorials have always been an efficient way to learn about diverse themes in Software Engineering. This year we will offer four tutorials covering leading edge topics and presented by the following renowned speakers: Renata Guizzardi, Luis Olsina, Andrea Delgado and Bill Nichols.

As many conferences, this CIbSE was mostly organized by a group of dedicated people that generously offered their time to perform the countless tasks needed to make the conference a success. I would like to thank all the volunteers that have devoted their energy to the goal of making it an outstanding experience to you. These include, among others, the Steering Committee, Track Chairs, PC members, student volunteers and the university's staff. Thank you all for your dedication and support. I must specially recognize the work of our Organization Chair Santiago Matalonga, our Academy/Industry Liaison– Ana Laura Trias, and to Liliana Pino our webmaster, we could not have done this without your leadership, patience and hard work!

I would also like to thank the invaluable support of the companies and organizations that, with their sponsorship, made it possible to offer full access to the conference to over fifty students. I believe this is a unique opportunity for our future Software Engineers and researchers.

Finally we hope that you will enjoy your stay at Montevideo the Ibero-american capital of culture 2013. Welcome to CIbSE 2013!

Gastón Mousqués / General Chair

Preface

Welcome to the sixteenth edition of the Workshop on Requirements Engineering series (WER'13) collocated at the Ibero-American Conference on Software Engineering (CibSE'13) and to be held in Montevideo, Uruguay.

WER 2013 continues with the tradition of previous editions, providing an active forum for researchers and practitioners. Although the workshop started as a meeting in order to consolidate the Ibero-American community of researchers on requirements engineering, over the last years, WER has also attracted attention of researchers from other parts of the world as well.

The international program committee, from 11 different countries, was composed of 34 relevant researchers coming both from academia and industry. We received 35 abstracts submissions, which were finally capitalized in 27 papers. After a rigorous reviewing process, carried out by at least three members of the program committee, and one additional discussion session, 9 papers were accepted as full papers (33%) and 3 as short papers. The 12 selected papers will be made available in the repository http://wer.inf.puc-rio.br/WERpapers.

In this edition the program also included an interactive panel that aims to gain a deeper understanding about the lack of technology transfer in requirements engineering. This panel will be composed by teams of renowned researchers and practitioners from Uruguayan industry.

We thank all members of the program committee and external reviewers for their dedication, effort and excellent work to improve papers quality. We also are greatly grateful to the local organization members for making possible to carry out this workshop collocated at CIbSE 2013. And we hope that you will enjoy and find useful what we have prepared for you.

Co-chairs

Nelly Condori-Fernandez (UPVLC, Spain)

Leandro Antonelli (UNLP, Argentina)

Program Committee

Alejandro Oliveros, Universidad Nacional de La Plata, Argentina

Alicia Martínez Rebollar, CENIDET, Mexico

Amador Durán Toro, Universidad de Sevilla, Spain

Anthony Finkelstein, University College London, United Kingdom

Antonio De Padua Albuquerque Oliveira, Universidade do Estado do Rio de Janeiro, Brazil

Carme Quer, Universitat Politécnica de Catalunya, Spain

Claudia P. Ayala, Technical University of Catalunya, Spain

Daniel Berry, University of Waterloo, Canada

Dolors Costal, Universitat Politecnica de Catalunya, Spain

Fernanda Alencar, Universidade Federal de Pernambuco, Brazil

Gemma Grau, Accenture, Spain

Gladys Kaplan, Universidad Nacional de La Matanza, Argentina

Graciela Hadad, Universidad Nacional de La Matanza, Argentina

Hugo Estrada, CENIDET, Mexico Isabel Brito, Instituto Politécnico de Beja, Portugal

Jaelson Castro, UFPE - Universidade Federal de Pernambuco, Brazil

João Araújo, Universidade Nova de Lisboa, Portugal

Jose Luis de La Vara, Norway

Juan Pablo Carvallo, Universidad del Azuay, Ecuador

Juan Sanchez, Valencia University of Technology, Spain

Julio C. S. Do Prado Leite, Pontificia Universidade Católica do Rio de Janeiro, Brazil

Luiz E. Galvão Martins, Universidade Federal de São Paulo, Brazil

Luiz Marcio Cysneiros, York University, Canada

Lyrene Fernandes Da Silva, Universidade do Estado do Rio Grande do Norte, Brazil

Mabel Bertolami, Universidad Nacional de la Patagonia San Juan Bosco, Argentina

Maria Lencastre, Universidade de Pernambuco, Brazil

Marcela Ridao, INTIA UNICEN, Argentina

Maya Daneva, University of Twente, The Netherlands

Oscar Dieste, Universidad Politécnica de Madrid, Spain

Thomas Alspaugh, Georgetown University, USA

Vera Werneck, Universidade do Estado do Rio de Janeiro, Brazil

External reviewers

David Ameller

Alejandrina Aranda

Sofia Azevedo

Rodrigo Fonseca

Table of Contents