PROCEEDINGS

SEKE 2015

The 27th International Conference on
Software Engineering &
Knowledge Engineering

Sponsored by
KSI Research Inc. and Knowledge Systems Institute Graduate School, USA

Technical Program
July 6 – 8, 2015
Wyndham Pittsburgh University Center, Pittsburgh, USA

Organized by
KSI Research Inc. and Knowledge Systems Institute Graduate School, USA
Welcome to the 27th International Conference on Software Engineering and Knowledge Engineering (SEKE), in Pittsburgh, Pennsylvania, USA, the City of Champions. In over a quarter of century, SEKE has established itself as a major international forum to foster, among academia, industry, and government agencies, discussion and exchange of ideas, research results and experience in software engineering and knowledge engineering. The SEKE community has grown to become a very important and influential source of ideas and innovations on the interplays between software engineering and knowledge engineering, and its impact on the knowledge economy has been felt worldwide. On behalf of the Program Committee Co-Chairs and the entire Program Committee, it is my great pleasure to invite you to participate, not only in the technical program of SEKE 2015 and its rich assortment of activities, but also in enjoying the beautiful and historical Steel City and people of Pittsburgh.

This year, we received 238 submissions from 35 countries. Through a rigorous review process where a majority (90 percent) of the submitted papers received three reviews, and the rest with two reviews, we were able to select 69 full papers for the general conference (29 percent), and 80 short papers (34 percent). Out of that, 6 papers have been accepted for special tracks, and 128 papers are scheduled for presentation in thirty-nine sessions during the conference. In addition, the technical program includes excellent keynote speeches, poster and demo presentations, as well as special tracks: Software Assurance, Intelligent Transportation Systems, and Testing.

The high quality of the SEKE 2015 technical program would not have been possible without the tireless effort and hard work of many individuals. First of all, I would like to express my sincere appreciation to all the authors whose technical contributions have made the final technical program possible. I am very grateful to all the Program Committee members whose expertise and dedication made my responsibility that much easier. My gratitude also goes to the keynote speakers who graciously agreed to share their insight on important research issues, to the conference organizing committee members for their superb work, and to the external reviewers for their contribution.

Personally, I owe a debt of gratitude to a number of people whose help and support with the technical program and the conference organization are unfailing and indispensable. I am deeply indebted to Dr. S. K. Chang, Chair of the Steering Committee, for his constant guidance and support that are essential to pull off SEKE 2015. My heartfelt appreciation goes to Dr. Marek Reformat of University of Alberta, Canada, the Conference Chair, for his help and experience, and to the Program Committee Co-Chairs, Dr. Kehan Gao of Eastern Connecticut State University, USA, and Dr. Shihong Huang of Florida Atlantic University, USA, for their outstanding team work.

I am truly grateful to the special track organizers, Dr. Dianxiang Xu of Boise State University, USA, Dr. Behrouz Far of University of Calgary, Canada, Dr. Jerry Gao of San Jose State University, USA, and Dr. Genny Tortora of University of Salerno, Italy, for their excellent job in organizing the special tracks.

I would like to express my great appreciation to all the Publicity Co-Chairs, Dr. Xiaoying Bai of Tsinghua University, China, and Dr. Jun Suzuki of University of Massachusetts Boston, USA, for their important contributions, to the Asia, Europe, India, and South America liaisons, Dr. Hironori Washizaki of Waseda University, Japan, Dr. Raul Garcia Castro of Universidad Politecnica de Madrid, Spain, Dr. Swapan Bhattacharya of National Institute of Technology Karnataka, India, and Dr. Jose Carlos Maldonado of University of Sao Paulo, Brazil, for their great efforts in helping expand the SEKE community, and to the Demo&Poster session Co-Chairs, Dr. Farshad Samimi of Enphase Energy, USA, and Dr. Dragutin Petkovic of San Francisco State University, USA, for their work.

Last but certainly not the least, I must acknowledge the important contributions that the KSI staff members have made. Their timely and dependable support and assistance throughout the entire process have been truly remarkable. It has been a great pleasure to work with all of them. Finally, I sincerely thank you for finding your way to Pittsburgh to participate in SEKE 2015, and hope you will enjoy this experience that may leave you long lasting memories.

Haiping Xu

SEKE 2015 Program Chair
SEKE 2015

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