Welcome to the proceedings of the 15th IEEE International Conference on Information Reuse and Integration (IEEE IRI 2014) in San Francisco, California, USA. Information Reuse and Integration (IRI) aims at maximizing the reuse of information by creating simple, rich, and reusable knowledge representations and consequently explores strategies for integrating this knowledge into legacy systems. IRI plays a pivotal role in the capture, representation, maintenance, integration, validation, and extrapolation of information; and applies both information and knowledge for enhancing decision-making in various application domains. During more than a decade of conferences, IRI has established itself as an internationally renowned forum for researchers and practitioners to exchange ideas, connect with colleagues, and advance the state of the art and practice of current and future research in information reuse and integration.

The IEEE IRI conference received 112 submissions, which is 10% increase over last year, from 25 countries this year. Every submission was assigned to at least four members of the international Program Committee to review and discuss, and 24 have been included as regular research papers (acceptance rate is 22%). In addition, the proceedings feature high-quality application papers (28% of the remaining) and several posters. Further, we have included a select group of invited papers to enrich our program. All of these papers provide novel ideas and state-of-the-art techniques in the field. The authors of accepted papers were asked to address the reviewers’ comments for improving the paper quality. We are honored to have several of the world’s leading experts in the field to join us as keynote speakers and panelists. We would like to thank our keynote speakers Prof. Lofti A Zadeh (University of California, Berkely, USA), Prof. Calton Pu (Georgia Institute of Technology, USA), Prof. Gio Wiederhold (Stanford University, USA), Dr. Tao Zhang (Chief Scientist for Smart Connected Vehicles, Cisco Systems, USA). Special thanks to our Reception Keynote speaker Sandeep Gopisetty (IBM Distinguished Engineer & Senior Manager, IBM Almaden). The keynotes, panel, and technical sessions cover a wide range of topics in IRI. This year, the conference also has a session devoted to an invited industry talks to enrich our IRI community with leading Industry researchers. Also, this year we have eight workshops (twice that of the last year) that will focus on emerging issues related to the IRI themes; these include a (i) DIM-2014: IEEE International Workshop on Data Integration and Mining, (ii) EM-RITE-2014: IEEE International Workshop on Empirical Methods for Recognizing Inference in Text, (iii) FMi-2014: IEEE International Workshop on Formal Methods Integration, (iv) IRI-HI-2014: IEEE International Conference on Information Reuse and Integration in Health Informatics, (v) (SocialSec-2014): First International Workshop on Social Network Security , (vi) (WICSOC-2014): The Third International Workshop on Issues and Challenges in Social Computing, (vii) (IICPS 2014): The First International Workshop on Information Integration in Cyber Physical Systems, and (viii) (NatSec’2014): Workshop on Advances in Nature-Inspired Cyber Security: Science, Engineering and Economics. The selection of papers for these tracks/special sessions and workshops were done separately from the main conference. Altogether, we are extremely proud to be able to present you a rich program that contains a variety of top-notch research.
Many dedicated people have contributed to the success of IEEE IRI 2014. First, please allow us to take this opportunity to thank all the authors for their submissions and presentations. Many participants travel great distances to contribute to this conference. Next, we want to express our sincere thanks to the Program Committee members and external referees for their quality work in reviewing the submitted papers as well as their invaluable contributions and support. Further, our deepest thanks to the Publications Co-Chairs Min-Yuh Day and Hassan Takabi; Workshop Co-Chairs Mei-Ling Shyu, Reda Alhajj, Chengcui zhang and Min-Yuh Day; Finance Chair Suresh Vadhva; Publicity Co-Chairs Li Tan and Wei-Bang Chen; Industry/Government/Application Track Co-Chair Tanvir Ahmed, Arjmand Samuel and Yuecel Karabulut; Special Sessions and Panels Chairs Gordon K. Lee and Taghi M. Khoshgoftaar, and Best Paper Award Chair Du Zhang for their tireless and excellent effort. We are also grateful to the Asian Liaison Wen-Lian Hsu, Canadian Liaison and Ethics Chair June R. Massoud, Asia-Pacific Liaison Xingquan (Hill) Zhu, Africa Liaison Thouraya Bouabana-Tebibel, and Webmaster Nathalie Baracaldo for their outstanding work. Our deepest appreciation also goes to our renowned keynote speakers, invited industry speakers and all the panelists for sharing their vision, insights, and experiences. We would like to also extend our thanks and deepest appreciations for the organizers of the four workshops. We would like to express our deepest thanks to our General Chairs, Shu-Ching Chen and Stuart Rubin, for their constant feedback, guidance, and unequivocal support throughout the organization of the conference.

This year we also received gracious corporate sponsorships from the University of Pittsburgh’s School of Information Science and the Virginia Military Institute that has been used to support five student travel grants and a best paper cash award.

In summary, it is the wonderful teamwork that brings this conference to its great success. We sincerely hope that you will enjoy our quality program and the colorful San Francisco.

Elisa Bertino, Bhavani Thuraisingham, Ling Liu, James Joshi
Program Co-Chairs
IEEE IRI2014