ICWE aims to promote research and scientific exchange related to Web engineering, and to bring together researchers and practitioners from various disciplines in academia and industry in order to tackle emerging challenges in the engineering of Web applications and associated technologies, as well as to assess the impact of these technologies on society, media, and culture.

This volume collects the full research papers, short research papers, vision papers, tool demonstrations, posters, tutorials, and extended abstracts for the keynotes presented at the 16th International Conference on Web Engineering (ICWE 2016), held in Lugano, Switzerland, during June 6–9, 2016.

ICWE is the flagship conference for the Web engineering community. Previous editions of ICWE took place in Rotterdam, The Netherlands (2015); Toulouse, France (2014); Aalborg, Denmark (2013); Berlin, Germany (2012); Paphos, Cyprus (2011); Vienna, Austria (2010); San Sebastián, Spain (2009); Yorktown Heights, NY, USA (2008); Como, Italy (2007); Palo Alto, CA, USA (2006); Sydney, Australia (2005); Munich, Germany (2004); Oviedo, Spain (2003); Santa Fe, Argentina (2002); and Cáceres, Spain (2001).

The 16th edition of ICWE accepted contributions related to different research areas revolving around Web engineering, including: Web application modelling and engineering; human computation and crowdsourcing; Web applications composition and mashups; social Web applications; Semantic Web; and – for the first time – also the Web of Things.

As opposed to the previous two editions of the conference, and with the full support of the Steering Committee, we switched the conference program organization from a multi-track system based on topics to a multi-track system based on types of publications (full research papers, short research papers, vision papers, demo and poster papers, as well as PhD symposium papers). This enabled us to offer the community the opportunity to submit their work at different stages of maturity and target multiple, staggered paper submission deadlines. Additionally, we are proud of the vision paper track, providing the Web engineering community with a new venue and format in which to reflect upon its future. The Program Committee was also reorganized from having multiple track chairs and sub-committees dedicated to each topic, something that often made it difficult to balance the reviewing workload and was hard for experts to choose which areas to sign up for. Instead, we introduced a tiered Program Committee, with a senior Program Committee composed of well-known experts from the field. This made it easier to run the virtual Program Committee meeting of the full research papers track and the discussion about each paper, which resulted in a meta-review. We also had a positive experience by introducing a shepherding process for borderline papers.

This year’s Call for Papers attracted 125 submissions from around the world, out of which the Program Committee selected 19 full research papers (21% acceptance rate),
16 short papers (45% acceptance rate), and three vision papers. Additionally, the Program Committee accepted 11 demonstrations, five posters, and seven contributions to the PhD symposium, where PhD students received personalized advice and guidance on their work from senior researchers in the Web engineering field.

ICWE 2016 accepted five tutorials on cutting-edge topics in the field of Web engineering, entitled: “Design Science Research in Information Systems and Software Systems Engineering”; “Using Docker Containers to Improve Reproducibility in Software and Web Engineering Research”; “Recommender Systems Meet Linked Open Data”; “Distributed Web Applications with IPFS”; and “A Declarative Approach to Information Extraction Using Web Service API.” Moreover, seven workshops were selected to be co-located at ICWE 2016.

The excellent program would not have been possible without the support of all the people who contributed to the organization of this event. We would like to thank the conference chairs for their hard work. Our thanks also go to Xin Luna Dong (Google Research), James Lewis (ThoughtWorks), and Panos Ipeirotis (New York University), who accepted to be our keynote speakers.

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