

Computing in Civil Engineering 2015



Proceedings of the 2015 International
Workshop on Computing in Civil Engineering

- ▶ Austin, Texas
- ▶ June 21–23, 2015

Edited by William J. O'Brien, Ph.D., P.E.
Simone Ponticelli, Ph.D.



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SPONSORED BY
Computing and Information Technology Division
of the American Society of Civil Engineers

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Simone Ponticelli, Ph.D.



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Preface

The 2015 ASCE International Workshop on Computing in Civil Engineering (IWCCE) was held in Austin from June 21-23, 2015. The workshop was hosted by The University of Texas at Austin under the auspices of the ASCE Technical Council on Computer and Information Technology (TCCIT). The IWCCE has become an international platform for researchers to share and debate topical issues across the various aspects of computing research in Civil Engineering. This edition of the workshop is aimed at continuing this successful debate by attracting a strong active audience through keynote sessions, dedicated topic tracks, and committee meetings.

These proceedings include 88 papers from 14 countries around the globe with topics in three main categories: Data, Sensing, and Analysis; Visualization, Information Modeling, and Simulation; Education. From a total of 168 received abstracts, the final set of articles was selected through a rigorous peer-review process, which involved the collection of at least two blinded reviews per article. The review process was performed for both abstracts and full papers, ensuring that only the best contributions were selected. Finally, authors had the chance to incorporate reviewers' comments into the final version. We are really pleased with the high quality of selected articles – that represent most contemporary and cutting-edge research on Computing in Civil Engineering – and we wish to thank both authors and reviewers for their efforts.

Organizing this workshop has been possible only with the support of many. We are particularly grateful to the Department of Civil, Architectural, and Environmental Engineering at The University of Texas at Austin for their support and infrastructure. The TCCIT committees supported the review process and provided extensive organizational assistance. Special thanks are also extended to Simone Ponticelli and Kris Powledge for their hard work in assisting the committee.

We hope that you enjoyed the technical sessions during the workshop and that you had a memorable stay in Austin!

William J. O'Brien, PhD, P.E.

Conference Chair

2015 ASCE International Workshop on Computing in Civil Engineering

Acknowledgments

Special thanks are due to the members of the Local Organizing Committee for their continuous and tireless support throughout the organization of the workshop:

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Dr. Carlos Caldas	The University of Texas at Austin
Dr. Fernanda Leite	The University of Texas at Austin
Dr. William J. O'Brien	The University of Texas at Austin
Dr. Simone Ponticelli	The University of Texas at Austin

The editor would also like to thank the following reviewers for their dedication, which ensured the high value of the paper selection process:

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