Composite Construction in Steel and Concrete VII

Proceedings of the Seventh International Conference on Composite Construction in Steel and Concrete

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EDITED BY

Mark Bradford, Ph.D., D.Sc., P.E.

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COMPOSITE CONSTRUCTION IN STEEL AND CONCRETE VII

PROCEEDINGS OF THE 2013 INTERNATIONAL CONFERENCE ON COMPOSITE CONSTRUCTION IN STEEL AND CONCRETE

July 28-31, 2013
North Queensland, Australia

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Centre for Infrastructure Engineering and Safety
The University of New South Wales, Sydney, Australia

The Structural Engineering Institute
of the American Society of Civil Engineers

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Mark Bradford, Ph.D., D.Sc., P.E.
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Front cover: Brian Uy, University of South Wales

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Preface

These proceedings summarize the state-of-the-art in composite construction worldwide, as presented at an international conference on Composite Construction in Steel and Concrete held at Palm Cove in North Queensland (Australia) in July 2013. This is the seventh in a series of conferences on this topic organized by the United Engineering Foundation (and now Engineering Conferences International) aimed at assessing and synthesizing the most recent advances in research and practice in the area of composite steel-concrete construction. This conference was preceded by those held in Henniker, New Hampshire, USA (1987), Potosi, Missouri, USA (1992), Irsee, Germany (1996), Banff, Canada (2000), Kruger National Park, South Africa (2004) and Devil's Thumb Ranch, Colorado, USA (2008).

The papers contained in this volume cover a wide variety of topics, including composite bridges, composite slabs, shear connectors, composite columns, innovative composite structural systems, fire and seismic resistance of composite structural systems and practical applications. Sixty participants from fifteen countries participated in four days of presentations, panel and informal discussions dealing with all aspects of composite construction. The conference was organized and chaired by Professor Mark Bradford and Professor Brian Uy from The University of New South Wales, Sydney, Australia.

The papers in the proceedings were peer reviewed as per the guidelines used for the *Journal of Structural Engineering*, ASCE and are eligible for all ASCE awards and are open for discussion in the *Journal of Structural Engineering*, ASCE. The review process was administered by the proceeding editors, who would like to thank all the reviewers for their prompt and useful responses. The publication of the proceedings was supported by the Technical Activities Division of the Structural Engineering Institute (SEI), ASCE and assisted very ably by Professor Roberto Leon of Virginia Tech.

The support of the ASCE (SEI) and Centre for Infrastructure Engineering and Safety is also gratefully acknowledged. This conference would not have been possible without their support and funding.

Finally, the Editors would like to thank Mrs Rachel Stoddart, Dr Brendan Kirkland, Dr Vipulkumar Patel and the administrative staff of the Centre for Infrastructure Engineering and Safety for all their work in preparing the final draft of the proceedings. Without their contributions these proceedings would not have been possible.

Professor Mark Bradford and Professor Brian Uy
Australia, September 2015

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