

# **Professor Mark Andrew Bradford**

#### See:

http://www.civeng.unsw.edu.au/staff/mark\_bradford https://research.unsw.edu.au/people/scientia-professor-mark-andrew-bradford http://journalogy.net/Author/19019870/mark-andrew-bradford http://www.worldcat.org/identities/lccn-n88-33772

BSc BE PhD Syd., DSc UNSW, FTSE, CPEng, CEng, PEng, FIEAust, MASCE, MIStructE, MACI

School of Civil and Environmental Engineering
The University of New South Wales, Australia
Scientia Professor, Australian Laureate Fellow & Professor of Civil Engineering
Research Director, Centre for Infrastructure Engineering & Safety

#### **Education:**

The University of Sydney: BSc (mathematics), BE (Hons 1) (civil engineering) PhD (structural engineering) The University of New South Wales: DSc (engineering mechanics)

## **Teaching Areas:**

Steel structures, composite steel-concrete structures, structural analysis, structural design, engineering mechanics.

### **Research Areas:**

Structures subjected to extreme actions, including fire and blast; geometric and material non-linear response of structures including arches, domes and curved beams; dynamics and elasto-dynamic buckling; numerical methods; structural retrofit; design codes.

#### **Professional Affiliations:**

Fellow, Australian Academy of Technological Sciences and Engineering

Fellow, Institution of Structural Engineers

Fellow, Institution of Engineers Australia

Member, Australian Institute of Company Directors

Member, American Society of Civil Engineers

Member, American Concrete Institute

Member, Australasian Association for Engineering Education

#### **Current Editorial Boards:**

International Journal for Numerical Methods in Engineering

**Engineering Structures** 

Computers and Structures

Thin-Walled Structures

International Journal for Structural Stability and Dynamics

Interaction and Multiscale Mechanics

Steel and Composite Structures

Advances in Structural Engineering

Electronic Journal of Structural Engineering

Advanced Steel Construction

Transactions of the Institution of Engineers, Hong Kong

Institution of Engineers, Singapore: Civil and Structural Engineering

Australian Journal of Structural Engineering

### **Recent Keynote, Plenary and Invited Conference Presentations:**

4th Int. Conf. on Structural Engineering, Mechanics and Computation, Cape Town, 2010

4th Int. Conf. on Steel and Composite Structures, Sydney, 2010

13th Int. Conf. on Civil, Structural and Environmental Engineering Computations, Valencia, Spain, 2010

9th Int. Conf. on Steel, Composite and Hybrid Structures, Leeds, UK, 2009

6th Int. Conf. on Advances in Steel Structures, Hong Kong, 2009

Australia-Japan Joint Workshop on Steel and Composite Structures, Sydney, 2009

12th Int. Conf. on Civil, Structural and Environmental Engineering Computations, Madiera, Portugal, 2009

7th EUROMECH Conference on Solid Mechanics, Lisbon, Portugal, 2009

5th Int. Conf. on Thin-Walled Structures, Gold Coast, 2008

5th Int. Conf. on Coupled Instabilities in Metal Structures, Sydney, 2008

Int. Conf. on Structures and Granular Solids, Edinburgh, UK, 2008

9th Int. Conf. on Computational Structures Technology, Athens, Greece, 2008

Int. Symposium on Innovations in Structural Steel, Singapore, 2008

2nd Int. Symposium on Innovative Design of Steel Structures Hong Kong, 2008

3rd Int. Conf. on Steel and Composite Structures, Manchester, UK, 2007

5th Int. Conf. on Advances in Steel Structures, Singapore, 2007

3rd Int. Conf. on Structural Engineering, Mechanics and Computation, Cape Town, 2007

Vietnam 1st Int. Conf. on Modern Design and Construction of Steel Structures, Hanoi, 2007 8th Int. Conf. Steel, Comp. and Space Structures, Kuala Lumpur, Malaysia, 2006 Int. Conf. on Computational Structures Technology, Gran Canaria, Spain, 2006 Int. Symposium on Advances in Steel and Composite Structures, Hong Kong, 2005

## **Selected Publications (2005-present):**

Bradford MA, Gilbert RI, Foster SJ, Filonov A, Ratcliffe R. Strength of two-way steel fibre reinforced concrete flooring systems. ARC Linkage Project, 2009-2011.

Gilbert RI, Bradford MA, Zeuner R, Brock GR. Time-dependent in-service behaviour of composite concrete slabs with profiled steel decking. ARC Linkage Project, 2009-2011.

Hamed E, Bradford MA. Long-term behaviour of thin-walled concrete curved members strengthened with externally bonded composite materials. ARC Discovery Project, 2009-2011.

Ranzi G, Bradford MA, Kim S-H. The mechanics of shear connectors and their effects on the long-term behaviour of modern and innovative composite structures. Australia-Korea Foundation, 2009-2010.

Bradford MA, Uy B, Ranzi G, Filonov A. Time-dependent response and deformations of composite beams with innovative deep trapezoidal decks. ARC Linkage Project, 2008-2010.

Ranzi G, Bradford MA. Australia-Korea ECS&T Researcher Program. Australian Academy of Science, 2008.

Bradford MA. Time-dependent dynamic, creep and shrinkage response of curved structural members. ARC Discovery Project, 2007-2009.

Bradford MA, Gilbert RI. Nonlinear analysis and behaviour of thin concrete axisymmetric shells. ARC Discovery Project, 2006-2008.

Bradford MA. Scientific visits to North America. Australian Academy of Science, 2006.

Bradford MA. Advanced analysis, behaviour and design of steel and steel/concrete composite engineering structures subjected to elevated temperatures. ARC Federation Fellowship, 2004-2009.

Bradford MA, Uy B, Filonov A. Composite beams using fibre reinforced concrete (FRC) profiled slabs. ARC Linkage Project, 2005-2007.

Mendis PA, Bradford MA et al. Research network for engineering a secure Australia. ARC Research Network, 2005-2009.

See http://www.eng.unsw.edu.au/mark-a-bradford for more.