



International Summer School on Composites in Infrastructure 18-22 July 2016 UOW



INTRODUCTION

The inaugural International Summer School on Composites in Infrastructure (ISSCI) will be held in Wollongong, Australia on 18-22 July 2016. The ISSCI will be hosted by the University of Wollongong, with its co-organisers being The Hong Kong Polytechnic University, Queen's University Belfast, Tsinghua University, University of Queensland and Southern Cross University.

The ISSCI, to be taught by a strong team of experts including some of the best scholars in the world, will focus on the structural use of fibre-reinforced polymer (FRP) composites in infrastructure. The ISSCI aims to prepare researchers and postgraduate students for high-quality research in the area and to prepare engineers for practical applications. It will provide a comprehensive and thorough treatment of the behaviour, modelling and design of structures incorporating FRP composites (including both FRP-strengthened structures and FRP-based new structures), with a strong emphasis on their fundamental mechanics. The ISSCI will include a one-day symposium which provides an international forum for all attendees to share their recent advances in both research and practice, and to benefit from discussions with the summer school lecturers.



UNIVERSITY
OF WOLLONGONG
AUSTRALIA



CONFIRMED LECTURERS

- Professor Jin-Guang Teng, The Hong Kong Polytechnic University
- Professor Jian-Fei Chen, Queen's University Belfast
- Professor Scott Smith, Southern Cross University
- Professor Peng Feng, Tsinghua University
- A/Professor Muhammad Hadi, University of Wollongong
- Dr Tao Yu, University of Wollongong
- Dr Dilum Fernando, University of Queensland

TOPICS

The following list of topics will be covered by the ISSCI:

- FRP products and applications: an overview
- Basic properties of FRP composites and test standards
- Classical lamination theory and failure criteria
- Basic concepts of plasticity and fracture mechanics
- Experimental research techniques
- Numerical modelling techniques
- RC beams strengthened with FRP composites
- Mechanics of FRP-to-concrete interfaces and debonding failures
- RC columns strengthened with FRP composites
- FRP-confined concrete: mechanics and applications
- Seismic retrofit of structures with FRP composites
- RC beams strengthened with near-surfaced mounted FRP reinforcement
- FRP-strengthened steel structures
- All FRP structures
- Hybrid FRP-concrete-steel structures
- FRP bar-reinforced concrete structures
- Durability
- Fire resistance
- Design standards/guidelines
- Design software

REGISTRATION FEES

- Early full registration: AUD1,000 (by 1 June 2016)
- Late full registration: AUD1,200 (after 1 June 2016)
- Early one-day industry registration: AUD200 (by 1 June 2016)
- Late one-day industry registration: AUD300 (after 1 June 2016)

Note: One-day industry registration is intended for people from industry (e.g. structural engineers) attending the courses on one of the days only.

TO REGISTER

Register now for the International Summer School on Composites in Infrastructure at <http://bit.ly/issci16>.

ORGANISING COMMITTEE

(In alphabetical order)

Co-Chairs: Prof. Jin-Guang Teng and Dr. Tao Yu

Members: Prof. Jian-Fei Chen, Prof. Peng Feng, Dr. Dilum Fernando, A/Prof. Muhammad Hadi, A/Prof. Alex Remennikov, Prof. Scott Smith, Dr. Shishun Zhang

TEACHING MATERIALS

A USB disk containing a soft copy of all lecture notes will be provided.

ABOUT WOLLONGONG

Wollongong is almost as conveniently located as Sydney: it is just 80 km south of Sydney – about one hour from the Sydney International Airport and 90 minutes by road or train from the centre of Sydney.

Wollongong is a vibrant, multicultural city, situated on one of Australia's most picturesque coastlines. It combines a relaxed, coastal atmosphere with cosmopolitan dining, shopping and culture.

FURTHER INFORMATION:

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ORGANISED BY:



UNIVERSITY
OF WOLLONGONG
AUSTRALIA

CO-ORGANISED BY:



清华大学
Tsinghua University



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CONFIRMED LECTURERS



PROF. JIN-GUANG TENG

Professor Jin-Guang Teng holds the positions of Ko Jan Ming Professor in Sustainable Structures and Materials, Chair Professor of Structural Engineering, and Director of Research Institute for Sustainable Urban Development at The Hong Kong Polytechnic University. He has conducted research over the past three decades on a wide range of topics within the broad field of structural engineering, including the structural use of fibre-reinforced polymer (FRP) composites in construction and steel & thin-walled structures. He has authored/co-authored some 190 SCI journal papers, leading to over 6,400 citations according to the Web of Science Core Collection. His work has impacted significantly on relevant design guidelines/codes in Australia, China, Europe and the United States. He was elected a Fellow of the Hong Kong Academy of Engineering Sciences in 2013 and a Corresponding Fellow of the Royal Society of Edinburgh in 2015. He served as the founding president of the International Institute for FRP in Construction (IIFC) (the premier international learned society in the field) during 2003-2006 and received the inaugural IIFC Medal in 2008.



PROF. JIAN-FEI CHEN

Prof. Jian-Fei Chen is Professor of Civil and Structural Engineering and theme leader of the Structures Theme at Queen's University Belfast. His main research interests lie in two distinct areas in structural mechanics and structural engineering: a) applications of FRP composites in construction and b) materials handling and behaviour of particulate solids flow, with recent research extended to renewable energy and low carbon construction materials. He has authored or co-authored over 300 publications, including the book "FRP-Strengthened RC Structures" published by Wiley in 2002, which has also been translated into Chinese, Korean and Persian. He has received a number of awards such as the Frederick Palmer Prize (2015) and Howard Medal (2004) awarded by the Institution of Civil Engineers, and the J.M. Ko Medal (2013) given by the international journal Advances in Structural Engineering. Prof. Chen is a founding Council member of the International Institute of FRP for Construction (IIFC) and currently the President of the IIFC.



PROF. SCOTT SMITH

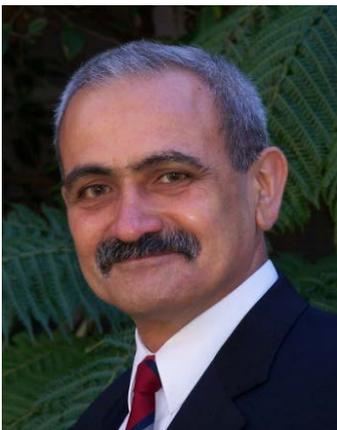
Prof. Scott Smith is Dean of Engineering and Foundation Professor of Engineering at Southern Cross University, Australia. He was awarded BE (Civil, 1994) and PhD (Structural Engineering, 1999) degrees from the University of New South Wales, Australia, and he was formerly an Associate Professor at the University of Hong Kong. Prof. Smith is Senior Vice President of the International Institute for FRP in Construction (IIFC), and he is Fellow of the IIFC, Engineers Australia, American Society of Civil Engineers, and The Hong Kong Institution of Engineers. He is a co-author of the well regarded 2002 Wiley book "FRP-Strengthened RC Structures", has over 4400 Google Scholar Citations to his credit, and in 2010 was bestowed the IIFC Distinguished Young Researcher Award. Prof. Smith is an Editor of Construction and Building Materials (JCBM) and he is a member of the International Editorial Board of the ASCE Journal of Composites for Construction.





PROF. PENG FENG

Prof. Peng Feng holds the positions of full Professor of civil engineering and deputy head of the Department of Civil Engineering at Tsinghua University. His research field is the high-performance structures with emerging materials and advanced construction techniques for civil engineering, including all-FRP structures and FRP hybrid structures, FRP strengthening of existing structures, integration of structures and functions for sustainable construction, and 3D printing for construction. Prof. Feng is the chair of three Chinese National Standard Committees on FRP. His work has impacted significantly on the relevant industry in China. He was awarded the Excellent Young Scientists by the National Natural Science Foundation of China (NSFC) and the Distinguished Young Scholar Award by the Specialty Committee on Infrastructure Applications of FRP Composites of the China Civil Engineering Society (CCES).



A/PROF MUHAMMAD HADI

A/Prof. Muhammad Hadi is an A/Prof of Structural Engineering at the University of Wollongong, Australia. He obtained his PhD. from The University of Leeds, UK. A/Prof. Hadi is a Fellow of the Australian Institution of Engineers, and a Fellow of the American Society of Civil Engineers. He published more than 200 research papers in the areas of concrete structures, concrete-steel and FRP composite structures. He supervised 11 PhDs and 7 ME (Hons) to date; and is currently advising 20 PhD candidates.



DR. TAO YU

Dr. Tao Yu is a Senior Lecturer in civil engineering at the University of Wollongong (UOW) in Australia, and an Associate Editor of the international journal *Advances in Structural Engineering*. His research interests include hybrid FRP tubular structures, rehabilitation of existing concrete and steel structures and nonlinear finite element modeling of structural behavior. Dr. Yu has published over 80 research papers in the area of structural engineering, and many of his journal publications are among the “Most Cited Articles”, “Top 25 Hottest Articles”, or “Top Downloads” of the respective journals. Dr. Yu has successfully secured a number of research projects, including the “Discovery Early Career Researcher Award” from the Australian Research Council. He is also one of the main contributors for the Chinese national standard “Technical Code for Infrastructure Application of FRP Composites (GB50608-2010)”.



DR. DILUM FERNANDO

Dr. Dilum Fernando is a Lecturer in the School of Civil Engineering and also a Director of The Centre for Future Timber Structures at The University of Queensland. His research interests include behavior of bonded interfaces, FRP strengthening of existing structures, FRP hybrid structures, timber structures and performance based and life-cycle design of structures. Dr. Fernando is an emerging researcher in the field of advanced composites in civil infrastructure and is a recipient of Australian Research Councils’ (ARCs’) Discovery Early Career Research Award (DECRA) among many other research awards.

