Preface

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Biographical notes: Zhishen Wu is a Professor of Civil Engineering at Ibaraki University, Japan, and Southeast University, China. His research interests include fibre reinforced polymer composites, advanced sensor technologies, and structural health monitoring; he has published over 500 papers in refereed journals and proceedings and has delivered over 50 keynote or invited papers. He has received numerous awards in recognition of his scholarly achievements including, the 1990 JSCE Research Prize, the 2005 JSCM Technology Award, and the 2009 *International Journal of Structural Health Monitoring* Person of the Year Award. He has chaired numerous technical and scientific committees, serves as the Editor, Associate Editor, and editorial board member of numerous journals and as the Principal Investigator of numerous government and industry research projects in both China and Japan.

It is indeed a pleasure to share with all of you the inaugural issue of the *International Journal of Sustainable Materials and Structural Systems*.

Over the past 10 to 15 years, global awareness on the importance of sustainability and protecting the environment has risen to the level that the National Academy of Engineering of the USA has identified the theme of 'sustainability' as one of the four major themes of the 'grand challenges for engineering'. During the same period, significant progress and scientific/engineering breakthroughs have taken place in the development of sustainable materials and structural systems. These developments have resulted in the emergence of a societal, as well as a technological, paradigm shift and has inspired a transformational change in the design and development of civil infrastructure, mechanical, aerospace and other engineering systems with a focus on sustainability.

Recognising the exciting opportunities and the challenges introduced by the aforementioned paradigm shift and in order to further promote and inspire the scholars in all fields of engineering to become more engaged in the new and rapidly evolving field of sustainable materials and structural systems, and with the encouragement and support of leading global experts from a wide range of engineering fields, who agreed to serve as the members of the editorial board, the associate editors, the managing and technical editors, we decided to launch the *International Journal of Sustainable Materials and Structural Systems*. We envision this journal will become the most respected forum to promote and foster research on sustainable materials, components, structures, and infrastructural systems. It is the intention of this journal to cover both basic and applied research in sustainable materials and structural systems in all fields of engineering and to promote the industrial and practical applications. Therefore, we invite and welcome education and research scholars, practicing engineers, scientists, policy makers and others from the fields of materials, mechanical, aerospace, chemical, civil, environmental, marine,

automotive and other fields of engineering, who have an interest in the interdisciplinary field of sustainable materials and structural systems to contribute to this new journal.

In order for the journal to have the most effective and highly visible early impact in the research community, we have dedicated the first three issues to invited papers and these issues will be published as invitational volumes. Therefore, on behalf of the editorial team, I extend an invitation to all colleagues in these research communities for submitting a manuscript for the next issue. You can submit your papers directly to Professor Mohammad Noori, the technical editor, who, in working closely with the publisher, will be coordinating the publication of all three invitational issues. Also, with the goal of making this journal the most highly recognised publication in the field of sustainable materials and structural systems, I am pleased to announce that the Inderscience Publishers and the International Institute for Urban Systems Engineering (IIUSE) at Southeast University in Nanjing, China will initiate a biennial International Symposium on Sustainable Materials and Structural Systems, to be held in Nanjing. It is envisioned that this symposium will establish itself as the leading forum in this field. Moreover, selected papers from those presented at this symposium will be collected and published in special volumes of IJSMSS. In addition, in order to further recognise and to promote significant research contributions and accomplishments in this field, in conjunction with this journal and the aforementioned symposium, an Annual Award for the Best Paper and a similar Award for the Best Student Paper will be created.

In closing, and once again, I would like to express my sincere and heartfelt gratitude to all authors who have contributed to this inaugural issue. I have no doubt that with your help and continued support, *IJSMSS* will establish itself as the leading and the most highly recognised publication in the field of sustainable materials and structural systems.