

Preface

The Asian-Australasian Association for Composite Materials (AACM) was founded in 1997 to encourage the interchange of knowledge in all aspects of composite materials amongst the scientific and engineering communities, and has been instrumental in the advancement of composite science and technologies. The previous four Asian-Australasian Conferences on Composite Materials (ACCMs) were held in Osaka-Japan, Kyongju-Korea, Auckland-New Zealand and Sydney-Australia, respectively, every two years since 1998. After these successful events, the ACCM conference series has now reached truly international status, and ACCM-5 will be the largest and most prestigious event on composite materials in the Asia-Pacific region.

ACCM-5 is aimed to provide an international forum for presentation and discussion of the latest scientific concepts and technological developments in the characterization, testing, mechanics, modelling, manufacturing and applications of various classes of composite materials and structures. It also intends to promote sharing ideas and emerging technologies, as well as to foster R & D collaborations amongst academia, research institutions and relevant industries.

This special issue contains papers accepted for presentation at the ACCM-5. With the rapid advances in composite materials in recent years, the ACCM-5 has a wide scope in its topics, including bio-medical composites; bio-mimetic materials; composites for construction applications; computational mechanics of composites; durability, NDE techniques and health monitoring; fracture, fatigue, impact, damage mechanics; interphases; manufacturing and processes; multi-functional composites; nano-composites and nano-mechanics; molecular dynamic simulations; natural fibres, green composites; off-shore, marine composites; polymers, metals, ceramic matrix composites; reinforcements (textile, strands, mats); and technology transfer. To exchange the latest developments in most emerging composite technologies, three *Special Symposia* in the areas of *Nanocomposites*, *Composites in Medicine and Smart Composites* are organized within the ACCM-5. In addition, the *Mai Special Symposium* will also be held to honour Professor Yiu-Wing Mai, who served as the Inaugural President of the AACM between 1998 and 2000, on the occasion of his 60th birthday.

We wish to thank all authors who contributed papers to the ACCM-5. Thanks are also due to the members of the Organising Committee, the Local Scientific Committee, the AACM Council and the International Advisory Committee for their efforts in making the ACCM-5 a great success. We also acknowledge with gratitude the following organizations for their contributions to the success of this conference: the Croucher Foundation; the Air Force Office of Scientific Research, Asian Office of Aerospace Research & Development (AOARD); and the major composite societies representing the participating countries/regions.



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On Behalf of the ACCM-5 Organizing Committee