

Preface

This publication is an outcome of the 10th International Conference on Damage Assessment of Structures DAMAS 2013 held at Trinity College Dublin, Ireland from 8-10 July 2013. DAMAS 2013 is the tenth in a series of biennial international conferences, which aim to bring together the expertise of scientists and engineers, in academia and industry in the field of damage assessment of structures. The conference focuses on all research topics relevant to damage assessment of engineering structures and systems including theoretical and experimental studies, numerical simulations and signal processing of sensor measurements.

Damage assessment of structures is an emerging field and has become increasingly important over the past decade or two. Diagnosis and prognosis of structural damage plays an important role not just in ensuring the structural integrity but also in optimizing the overall life cycle cost including the cost for operation and maintenance.

The DAMAS conference is now a well established major forum for discussion and dissemination of recent advances in damage monitoring, detection, assessment and quantification following the previous nine conferences held in Pescara (Italy, 1995), Sheffield (UK, 1997), Dublin (Ireland, 1999), Cardiff (UK, 2001), Southampton (UK, 2003), Gdansk (Poland, 2005), Torino (Italy, 2007), Beijing (China, 2009) and Oxford (UK, 2011).

Broad areas of damage assessment covered in the conference include applications to composite materials, civil infrastructure, mechanical devices and machineries, renewable energy, sensors, signal processing, structural health and condition monitoring. One of the special features of this conference is the organization of the joint workshop on Health Monitoring of Wind Turbines and Renewable Energy Systems which is connected to the EU FP7 project SYSWIND. This has generated an interest in contribution of papers related to damage monitoring and assessment of renewable energy devices.

This year the number of papers published is 159. These papers will be presented and discussed during the conference. Additionally, special lectures and panel discussions with leading experts in the field will be held. The papers were received from researchers all over the world. The papers published were accepted from a number of submissions made, reviewed by a panel of learned referee and members of the International Scientific Committee in a rigorous and fair manner. The quality of the accepted papers is very high, contributing to advancement of knowledge. I would like to thank all the contributors including the key note and special session speakers. Special thanks are due to the members of the International Scientific Committee as well as the learned reviewers for their valuable time and effort spent in reviewing the papers, providing useful suggestions to improve the quality of the submissions and prompt response to review requests.

From the outset, DAMAS conference has enjoyed the support of the Applied Mechanics Group of the Institute of Physics and their overwhelming support to hold the 10th international conference in the series at Trinity College Dublin is gratefully acknowledged. I am grateful to the members of the Organizing Committee for their constant support and useful advice provided in the organization of the conference. The organization of such successful events requires a dedicated and hardworking team constantly engaged behind the scene and I would like to take this opportunity to thank the local organizing committee. In this regard, Andrea, Breiffni, Ciaran, Dinh, Esther, Fred, Kevin, Meriel and Trish deserve special mention.

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