

## PREFACE

This volume constitutes the proceedings of the seventh in a series of biennial international conferences on Damage Assessment of Structures (DAMAS 2007). The primary aim of the conference is to bring together the expertise of scientists and engineers in academia and industry in the field of damage assessment, structural health monitoring (SHM) and non-destructive evaluation (NDE) and to exchange information with a particular emphasis on scientific and technical development.

The themes of the conference reflect current interest in the wider field of damage assessment and it is interesting to observe the rise in popularity of acoustic emission, reflected by the high number of papers in this area. As usual, a significant proportion of the conference is dedicated to signal processing and computational methods.

The DAMAS series of conferences is now established as a major forum for discussion and dissemination of recent advances in damage detection, assessment and quantification, following the six previous conferences in Pescara (1995), Sheffield (1997), Dublin (1999), Cardiff (2001), Southampton (2003) and Gdansk (2005).

The proceedings covers activities relevant to damage assessment of engineering structures and systems including signal processing of sensor measurements and analytical techniques as well as experimental case studies. The conference themes are as follows: –

- Structural integrity and damage assessment
- Advanced methods of NDT
- Developments in signal processing and algorithms
- System diagnosis and prognosis
- Damage mechanisms
- Fatigue damage
- Damage location and quantification
- Sensors and measurement procedures
- Condition monitoring
- Real-time process monitoring
- Practical applications and case studies

The conference organising committee is very grateful to the authors and Keynote Speakers for their careful efforts in producing the papers and to the Scientific Committee for taking the time to review the papers to journal standards. Moreover the organisers would particularly like to thank Prof. Keith Worden for lending his considerable experience and to Dr. Alessandra Tassotti for her continued dedication and hard work, providing a very significant contribution to the organisation of the conference.

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