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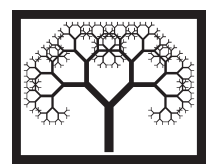

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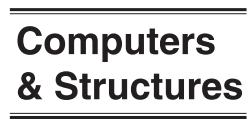

Preface

This volume comprises the extended abstracts of contributed papers presented at The Eighth International Conference on Computational Structures Technology (CST 2006) held at Las Palmas de Gran Canaria, Spain, from 12 to 15 September 2006. The full papers from the conference are available on the accompanying CD-ROM. This conference series began in Edinburgh during 1991. The 2006 conference was held concurrently with The Fifth International Conference on Engineering Computational Technology (ECT 2006)

The special sessions included in this volume of Proceedings are:

- Computational Aspects for Damage, Robustness and the Service-Lives of Structures
  organised by C. Könke, W.B. Kraetzig and Y.S. Petryna
- Steel and Composite Structures
  organised by L.F. Costa Neves
- Probabilistic Approaches to Structural Mechanics
  organised by M. Karama and A. El-Hami
- Tall Buildings: Analysis and Design
  organised by J.W. Bull
- Traffic Vibrations: Isolation and Propagation
  organised by D. Le Houédec
- Robustness of Mechanical Systems against Uncertainties
  organised by I. Doltsinis
- Constitutive and Material Modelling
  organised by M.H.B.M. Shariff
- Dynamics of Viscoelastically Damped Structures
  organised by G. Muscolino and S. Adhikari
- Masonry Structures
  organised by J.W. Bull
- Fabric, Cable and Membrane Structures
  organised by B.H.V. Topping and P. Iványi
- Composite and Adaptive Structures: Modelling and Simulation
  organised by C.M. Mota Soares and A. Benjeddou
- Steel Structures: Modelling, Analysis and Design
  organised by M. Iványi

We are particularly grateful to the organisers of these special sessions.

The following sessions are also included in this volume:

- Reinforced Concrete Structures: Modelling and Analysis
- Aluminium Structures: Modelling, Analysis and Design
- Bridge Engineering
- Timber Structures
- Offshore Structures
- Porous Media
- Structural Joints and Connections
- Plates
- Shells
- Finite Element Methods
- Discrete Element Methods
- Boundary Element Methods
- Iterative Solution Methods
- Meshless Methods
- Multiscale Methods
- Probabilistic and Reliability Based Methods
- Adaptivity and Errors
- Buckling and Post-Buckling Behaviour
- Structural Analysis
- Re-Analysis
- Optimization
- Topology and Shape Optimization
- Simulation
- Design Methods and Studies
- Finite Element Studies
- Contact
- Multibody Dynamics
- Dynamics
- Vibration Problems
- Railway Engineering
- Earthquake and Seismic Engineering
- Composite Materials: Modelling, Analysis and Design
- Piezoelectric Materials: Modelling and Analysis
- Elasto-Plasticity, Plasticity and Visco-Elasticity
- Homogenisation
- Graph Theory
- Damage, Identification and Detection
- Education

Other papers presented at the conferences in 2006 are published as follows:

- *The Invited Lectures from CST 2006 are published in:*
  Innovation in Computational Structures Technology, B.H.V. Topping, G. Montero and R. Montenegro, (Editors), Saxe-Coburg Publications, Stirlingshire, Scotland, 2006.

- *The Invited Lectures from ECT 2006 are published in:*
  Innovation in Engineering Computational Technology, B.H.V. Topping, G. Montero and R. Montenegro, (Editors), Saxe-Coburg Publications, Stirlingshire, Scotland, 2006.
- *The Contributed Papers from ECT 2006 are published in:*
  Proceedings of the Fifth International Conference on Engineering Computational Technology, B.H.V. Topping, G. Montero and R. Montenegro, (Editors), (Book of Abstracts and CD-ROM), Civil-Comp Press, Stirlingshire, Scotland, 2006.

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