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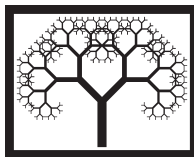
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**The Fifth International Conference on  
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# Preface

This volume comprises the extended abstracts of contributed papers presented at The Fifth International Conference on Engineering Computational Technology (ECT 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. The ECT conference series began in Edinburgh during 1998. The 2006 conference was held concurrently with The Eighth International Conference on Computational Structures Technology (CST 2006).

The special sessions included in this volume of Proceedings are:

- Mesh Generation and Adaption  
*organised by J.M. Escobar Sánchez and J. Sarrate*
- Fractional Differential Equations: Theory and Applications  
*organised by J.J. Trujillo Jacinto del Castillo*
- Polymer Processing  
*organised by O.S. Carneiro*
- Orthogonal Functions: Computation and Applications in Science  
*organised by P. González-Vera*
- Mathematical Models based on Cellular Automata  
*organised by A. Hernández Encinas and G. Rodríguez Sánchez*
- Evolutionary Methods, Genetic Algorithms and Neural Networks in Engineering  
*organised by B.H.V. Topping and P. Iványi*
- Modelling of Decision Making and Risk Analysis in Construction Management  
*organised by N.F. Pan*
- Computational and Numerical Linear Algebra  
*organised by R. Bru*
- Computational Modelling in Environmental Engineering  
*organised by A. Pérez-Foguet*
- Contact Mechanics  
*organised by F. Lebon*

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

The following sessions are also included in this volume:

- Software Development: Tools and Techniques
- Virtual Reality and Virtual Technologies
- Parallel and Distributed Computing
- Grid and Collaborative Computing

- Internet Applications
- Knowledge-Based Techniques
- Case-Based Reasoning
- Computer Aided Design and Modelling
- Image Processing and Analysis
- Construction Management: Techniques and Tools
- Traffic Engineering
- Environmental Engineering
- Water Systems, River and Coastal Engineering
- Geotechnical Engineering: Modelling and Analysis
- Granular Materials
- Rock and Geological Problems
- Soil-Structure Interaction
- Computational Fluid Dynamics
- Flow and Wave Problems
- Fluid-Structure Interaction
- Nanotechnology
- Biomechanics
- Hysteresis
- Forming and Rolling Problems
- Computational Simulation
- Crash Simulation
- Stochastic and Reliability Simulation
- Meshfree Methods
- Adaptive Methods
- Fuzzy Methods
- Iterative Methods
- Design Sensitivity and Optimization
- Meshing and Remeshing
- Graph Theory Techniques
- Training and Education

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

- *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 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 Contributed Papers from CST 2006 are published in:*  
Proceedings of the Eighth International Conference on Computational Structures 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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