

**Proceedings of the
Eighth International Conference on the
Application of Artificial Intelligence to
Civil, Structural and Environmental Engineering**

Civil-Comp Press publications on Computational Engineering

Proceedings of the Ninth International Conference on Civil and Structural Engineering Computing

Edited by: B.H.V. Topping

Proceedings of the Seventh International Conference on the Application of Artificial Intelligence to Civil and Structural Engineering

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Proceedings of the Eighth International Conference on Civil and Structural Engineering Computing

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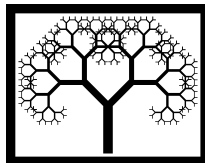
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Finite Element Mesh Generation

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Preface

This volume comprises the extended abstracts of contributed papers presented at the Eighth International Conference on the Application of Artificial Intelligence to Civil, Structural and Environmental Engineering (AICivil-Comp 2005) held in Rome, Italy from 30 August to 2 September 2005. The full papers from the conference are available on the accompanying CD-ROM. This conference is part of the AICivil-Comp Series series that commenced in 1987. The 2005 conference was held concurrently with the Tenth International Conference on Civil, Structural and Environmental Engineering Computing (Civil-Comp 2005).

The following sessions are included in this volume:

- Artificial Intelligence Based Assessment and Design: Tools and Techniques
- Risk Analysis and Safety Management
- Case Based Reasoning and Design
- Image Acquisition and Processing
- Environmental Decision Systems
- Data Mining
- Metaphors from Nature for Engineering Analysis
- Genetic and Evolutionary Algorithms in Structural Engineering
- Genetic and Evolutionary Algorithms in Civil and Environmental Engineering
- Hybrid Systems incorporating Genetic Algorithms and Neural Networks
- Neural Networks in Structural Engineering
- Neural Networks in Civil and Environmental Engineering

Other papers presented at the conferences in 2005 are published as follows:

- *The Invited Lectures from Civil-Comp 2005 are published in:* Innovation in Civil and Structural Engineering Computing, B.H.V. Topping (Editor), Saxe-Coburg Publications, Stirling, Scotland, 2005.
- *The Contributed Papers from Civil-Comp 2005 are published in:* Proceedings of the Tenth International Conference on Civil, Structural and Environmental Engineering Computing, B.H.V. Topping (Editor), (Book of Abstracts and CD-ROM), Civil-Comp Press, Stirling, Scotland, 2005.

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