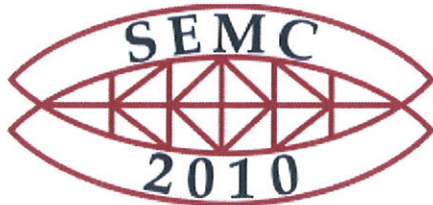


SEMC 2010

THE FOURTH INTERNATIONAL CONFERENCE ON STRUCTURAL ENGINEERING, MECHANICS AND COMPUTATION



Cape Town
South Africa
6-8 September 2010



Submission of Papers

Prospective Authors are invited to submit Abstracts (200 to 300 words) of papers, preferably by email, and by the deadline indicated below. There are no special instructions for the preparation of abstracts, except that these should be written clearly, setting out the aims of the paper and summarising the main conclusions. Submissions are to be directed to:

Professor A. Zingoni
Chairman, SEMC 2010
Department of Civil Engineering
University of Cape Town
Rondebosch 7701
Cape Town, South Africa
Fax: (27) (21) 650 5864
E-mail: alphose.zingoni@uct.ac.za

Authors will be notified of the decision on their abstracts in accordance with the time schedule indicated below. Detailed instructions for the preparation of full papers are available via the link [Manuscript-Preparation Instructions](#). The language of communication at the Conference will be English, and all papers must be written in clear English. To ensure a high standard of presentations, all received papers will be reviewed by members of the International Advisory Board and other identified experts.

Publication of Papers

Accepted papers will be collected together and published as the Proceedings of the Fourth International Conference on Structural Engineering, Mechanics and Computation. The Proceedings will comprise a CD-ROM with full-length papers, and a printed book with shorter versions of the papers. The task of producing the Proceedings has been assigned to Taylor & Francis, who are a leading international publisher of engineering conference proceedings. The Proceedings will be available to all registered participants upon arrival at the Conference.

Important Deadlines

Submission of Abstracts

30 September 2009

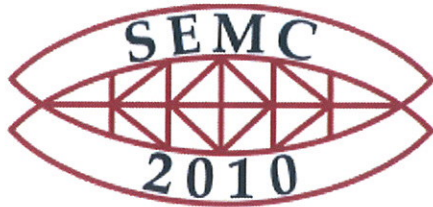
	(Extended to 31 October 2009)
Notification of Acceptance of Abstracts	15 November 2009
Submission of Full Papers	15 March 2010
Notification of Acceptance of Full Papers	30 April 2010
Publication of SEMC 2010 Proceedings	25 August 2010



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Keynote and Invited Speakers

Plenary Keynote Lectures will be delivered at the SEMC 2010 International Conference by distinguished international authorities from across the world. A number of Invited Papers on a variety of specialised topics will also be presented by identified experts. Confirmed Keynote and Invited Speakers, together with the titles of their proposed presentations, are as follows:

Keynote Speakers

















- 
K.J. Bathe, Massachusetts Institute of Technology, USA
Challenges and Advances in the Analysis of Structures
- 
D.M. Frangopol, Lehigh University, USA
Structural Optimization, Safety and Life-Cycle Performance
- 
H.N. Li, Dalian University of Technology, China
Structural Vibration Control and Design for Earthquake Resistance
- 
K. Göppert, Schlaich Bergemann & Partners, Germany
Roof Design of Stadiums for the 2010 FIFA World Cup
- 
F.S.K. Bijlaard, Technical University of Delft, Netherlands
Eurocode Approach to the Design of Steel Joints
- 
M.A. Bradford, University of New South Wales, Australia
Design Life of Thin-Walled Concrete Domes

Invited Speakers

- 
K. Holschemacher, Leipzig University of Applied Sciences, Germany
Recent trends in the development of steel-fibre reinforced concrete
- 
M. Holicky, Czech Technical University in Prague, Czech Republic
Probabilistic Basis of Present Codes of Practice
- 
K. Jarmai, University of Miskolc, Hungary
Optimization of Steel Structures: Design, Fabrication and Economy
- 
C.A. Mota Soares, Technical University of Lisbon, Portugal
Hybrid Active-Passive Laminated Structures: Modelling, Optimization and Identification
- 
S. Shrivastava, McGill University, Canada
Plastic Buckling of Plates and Shells

-  **J. Loughlan**, Loughborough University, United Kingdom
The Mechanics of Post Local Buckling and Overall Bending Interaction in Thin-Walled Compression Members
-  **K. Rasmussen**, University of Sydney, Australia
Reliability-Based Methodology for the Design of Support Formwork Systems by Advanced Structural Analysis
-  **M.A. Gizejowski**, Warsaw University of Technology, Poland
Restrained Distortional Buckling and Postbuckling Behaviour of Steel-Concrete Composite Beams
-  **F. Wald**, Czech Technical University in Prague, Czech Republic
Fire Engineering of Steel Structures
-  **H.A. Mang**, Vienna University of Technology, Austria
Fire - Material - Structure: A Holistic Approach towards Analysis of Underground Infrastructure
-  **T. Balendra**, National University of Singapore, Singapore
Vulnerability of Buildings due to Far-Field Effects of Earthquakes
-  **H.J. Niemann**, Ruhr University Bochum, Germany
Dynamic Response of High-Rise Buildings to Wind Loading
-  **F. Bontempi**, University of Rome "La Sapienza", Italy
Fire-Induced Progressive Collapse in Structures
-  **J.J. Melcher**, Brno University of Technology, Czech Republic
Structural Glass: Design and Experimental Verification for Constructional Loading Actions
-  **K.F. Chung**, Hong Kong Polytechnic University, China
Structural Behaviour of Long-Span Composite Beams with Low Degree of Shear Connection
-  **R. Ohayon**, Conservatoire National des Arts et Metiers, France
Topic to be advised
-  **E. Fehling**, University of Kassel, Germany
Ultra High Performance Concrete Structures: Recent Developments in Research and Practice
-  **T. Tarnai**, Budapest University of Technology and Economics, Hungary
The Dunkerley Theorem for Quadratic Eigenvalue Problems of the Theory of Elastic Stability
-  **A. Kaveh**, Iran University of Science and Technology, Iran
Applications of Graph Products in Structural Mechanics
-  **J.F. Chen**, University of Edinburgh, United Kingdom
Progressive debonding in RC beams shear-strengthened with FRP side strips
-  **W.B. Krätzig**, Ruhr University Bochum, Germany
Power Towers: On Structural Engineering Problems of Solar Updraft Chimneys
-  **G. Borino**, University of Palermo, Italy
A Multi-Scale Cohesive-Frictional Interface Model
-  **C. Szymczak**, Gdansk University of Technology, Poland
Problems of Analysis of Thin-Walled Structures: Statics, Dynamics and Sensitivity
-  **D.P. Thambiratnam**, Queensland University of Technology, Australia
Structural Dynamics Research and Applications
-  **G. Domokos**, Budapest University of Technology & Economics, Hungary
Evolution of Asteroid Shapes and the Geometry of Abrasion
-  **J.G. Korvink**, University of Freiberg, Germany

Particle Dynamic Methods for Microsystem Applications

-  **S. Adali**, University of KwaZulu-Natal, South Africa
Analysis and Optimisation of Laminated Panels under Buckling Loads
-  **H. Bouchair**, Polytech'Clermont-Ferrand, France
Analysis and Modelling of the Mechanical Behaviour of Structural Steel and Timber Joints
-  **R. Harte**, Bergische University Wuppertal, Germany
Actual Power Plant Renewal Program in Germany
-  **G. De Matteis**, University G.d'Annunzio of Chieti-Pescara, Italy
On the Use of Metal Shear Walls for Earthquake-Resistant Buildings
-  **J. Feix**, University of Innsbruck, Austria
Hybrid or Composite Constructions: A Way to Economic and Sustainable Structures
-  **B. Baier**, University of Duisburg-Essen, Germany
Appropriate Constructions and Materials for a New Lightweight Building Method
-  **C. Borri**, University of Firenze, Italy
Dynamic Response of Large Primary Structures to Wind Loads: Experimental Tests in Wind Tunnel
-  **U. Schneider**, Technological University of Vienna, Austria
Calculation of restraint axial forces of concrete cylinders under transient temperature conditions
-  **J. Grabe**, Technical University of Hamburg, Germany
High-performance finite element and coupled Eulerian-Lagrangian simulations of pile installation processes
-  **S. Caddemi**, University of Catania, Italy
A beam element for the analysis of framed structures with multiple discontinuities
-  **D.E. Beskos**, University of Patras, Greece
Effect of Repeated Earthquakes on the Inelastic Displacement Ratios of SDOF Systems
-  **C. Jarsky**, Czech Technical University in Prague, Czech Republic
On Modelling of Projects with Utility Assessment
-  **M. Schmidt**, University of Kassel, Germany
Nanotechnology: A new approach for high performance concretes and sustainable concrete structures
-  **N. Banthia**, University of British Columbia, Canada
Multi-functional and sustainable FRCs: A journey from fracture toughening to piezo-resistivity to sensing
-  **J.B. Obrebski**, Warsaw University of Technology, Poland
Own theory for thin-walled straight bars: Development and investigations
-  **A.S. Elnashai**, University of Illinois at Urbana-Champaign, USA
Fragility relationships for structures subjected to multiple earthquakes.
-  **L.F. Boswell**, City University, United Kingdom
Use of Optical Fibre Technology to measure Structural Performance and Material Durability
-  **R.I. Gilbert**, University of New South Wales, Australia
Strength and Ductility of Two-Way Slabs containing Welded Wire Fabric
-  **J. Witzany**, Czech Technical University in Prague, Czech Republic
Impact of Engineering Seismicity and Cyclic Load on a Prefabricated Planar Structure of a Multi-Storey Building
-  **G.A. Rombach**, Technical University of Hamburg-Harburg, Germany

Finite Element Design of Concrete Structures: Differences between Theory and Practice

- **S. Anagnostopoulos**, University of Patras, Greece
Towards Earthquake-Resistant Design of Steel Buildings for Uniform Ductility Demands
- **K. Magnucki**, Poznan University of Technology, Poland
Stability of Barrelled Sandwich Shells under Pressure
- **R. Schmidt**, RWTH Aachen University, Germany
Finite-Rotation Finite Element Analysis of Layered Composite Plates and Shells
- **J. Dawe**, University of New Brunswick, Canada
Structural Failures and Forensics

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