

**Day 1: Wednesday 31 August 2005: AM
ROOM 5**

09.00-10.30: Chaired by: Professor F. Molenkamp and Professor T. Nakai

CC.XLVIII DAM ENGINEERING

- CC.250 Dam Safety Instrumentation Computer Program
R.L. Hill and L.L. Perrin
- CC.251 Collapse Settlement of a Clay Core Rockfill Dam during the First Impoundment
F. Jafarzadeh, T. Heidari and A.R. Azami
- CC.252 Inverse Analysis of an Embankment on Soft Clay using the Ensemble Kalman Filter
A. Hommels, F. Molenkamp, B. Nguyen and A.W. Heemink

CC.XLIX FOUNDATION ENGINEERING

- CC.253 An Elastoplastic Model for Geomaterials using the Modified Stress and Subloading Surface Concept and its Application to Bearing Capacity Problems
T. Nakai, M. Hinokio and S. Kurosaki
- CC.254 Three Dimensional Bearing Capacity Analysis of Shallow Foundations Adjacent to Slopes
A.A. Mirghasemi and A.R. Majidi
- CC.255 Impedance of Surface Footings on Layered Ground
L. Andersen and J. Clausen

10.30-11.00: Coffee

11.00-12.30: Chaired by: Professor R. Montenegro

CC.XV ENVIRONMENTAL MODELLING AND SIMULATION

- CC.84 Innovative Approach in Simulation of Suspended Floc Formation in Activated Sludge, N. Khandani A., T. Donnelly and D.J. Elliott
- CC.85 An Investigation into the Influence of Hydrogeological Conditions on LNAPL Migration, M.H.A. Mohamed
- CC.86 Interaction between Physical, Chemical and Biological Processes in the Coastal Water off a River Mouth in a Post-Flood Condition
Y.M. Yustiani and A. Mano
- CC.87 Preconditioning Shifted Linear Systems arising in a Wind Model
G. Montero, A. Suárez, E. Rodríguez, E. Flórez and M.D. García

AI.V ENVIRONMENTAL DECISION SYSTEMS

- AI.15 Process Control using Artificial Intelligence Techniques: Innovative Activated Sludge Process
P.N. Ravindra and H. Rao
- AI.16 Solid Waste Management using a Multicriteria Decision System
R. Galvez-Cloutier and R. Rodríguez-Méndez

**Day 1: Wednesday 31 August 2005: AM
ROOM 6**

09.00-10.30: Chaired by: Professor J.C. Miles and Dr J.W.Z. Lu

INVITED LECTURE

- LE.2 Structural Design Inspired by Nature
T. Arciszewski and R. Kicinger

AI.VII METAPHORS FROM NATURE FOR ENGINEERING ANALYSIS

- AI.20 Simulating Ozone Level Time Series using an Innovative Hybrid Model based on a Multilayer Perceptron
D. Wang and W.Z. Lu

AI.VIII GENETIC AND EVOLUTIONARY ALGORITHMS IN STRUCTURAL ENGINEERING

- AI.22 A new Parallel Genetic Algorithm Scheme in Structural Design Optimisation
T. Talaslioglu
- AI.23 Discrete and Continuous Structural Optimization using Evolution Strategies
O. Hasançebi and A.F. Ulusoy

10.30-11.00: Coffee

11.00-12.30: Chaired by: Professor E. Salajegheh and Professor P.C.G.S. Vellasco

- AI.24 Genetic Algorithm Optimization of Semi-Rigid Steel Structures
A.A. Del Savio, S.A.L. de Andrade, P.C.G.S. Vellasco and L.F. Martha
- AI.25 Coarse-Grain Parallel Meta-Genetic Algorithms in the Optimization of Truss-Structure Design
V. Esfahanian, A. Khajavi Rad and F. Torabi
- AI.26 Parallel Computing for Design Optimization with Computationally Expensive Functions using Evolutionary Algorithms
M. Mrzyglod and A. Osyczka
- AI.27 Optimal Fuzzy Control of Hybrid Base Isolation System using Genetic Algorithms
H.S. Kim, P.N. Roschke and D.G. Lee
- AI.28 Conceptual Design of Geodesic Domes
D.J. Shaw, J.C. Miles and W.A. Gray
- AI.29 Optimum Shape Design of Space Structures using Genetic Algorithms
E. Salajegheh, M. Mashayekhi, M. Kaykha and M. Khatibinia