

VOLUME II

PREFACE

SECTION 8 CONCRETE STRUCTURES

Strength of Flanged Shear Wall – Floor Slab Junction
P. Bhatt, G.F. Elnounu

525

Centrifuge Testing and Numerical Modelling of Prestressed Domes <i>A.M. Wolde-Tinsae, S.A. Chini</i>	539
A Study of the Response of Composite Concrete Deck-Steel Box Girder Bridges <i>M.S. Cheung, M.S. Mirza</i>	549
SECTION 9 STEEL STRUCTURES	
Buckling in Space of End-Restrained Tubular Beam-Columns <i>R. Carneiro de Barros</i>	573
Numerical Procedure for the Elasto-Plastic Buckling Analysis of Short Cylinders <i>A. Sachinis, P.A. Frieze</i>	583
Analysis of the Behaviour of Armoured Doors Subjected to Contact Explosions: Experimental Measurements Compared with Results Computed by FEM and ONE-DOF Numerical Models <i>G. Mazza, R. Minasola, P. Molinaro and A. Papa</i>	593
SECTION 10 STRUCTURAL DYNAMICS	
Dynamic Analysis of Mechanical Part of a Locomotive <i>L. Rus</i>	605
Dynamic Analysis of Flexible Embedded Foundations: Plane Strain Case <i>C.C. Spyarakos, P.N. Patel and D.E. Beskos</i>	615
SECTION 11 STRESS CONCENTRATION, FRACTURE AND FATIGUE	
On the Prediction of Fatigue Cracks at Holes <i>E.S. Folias</i>	627
A Caustic Method Stress Intensity Factor Evaluation by a Digital Image Processing Procedure <i>M. Marchetti, G Andretta, A. La Barbera and V. Smorto</i>	639
Investigation of the Deformation and the Fracture of Metal Specimens via Single-Beam Speckle Interferometry and Boundary Element Method <i>L. Hadjnikov, V. Kavardjikov, V. Valeva and T. Rangelow</i>	653
SECTION 12 GEOMECHANICS	
Field Data Reduction of Concrete Bulkheads in Salt Deposits <i>A.C. Singhal, V. Veliz</i>	665
Behaviour of a Single Pile Subjected to Lateral Loading: Experimental Versus Numerical Model <i>R. Passalacqua</i>	673
Bearing Capacity of Shallow Strip Foundation on Clay with a Granular Trench <i>B.M. Das, J. Hamed and W.F. Echelberger Jr.</i>	689
Drained Creep Behaviour of Clays <i>G.A. Athanasopoulos</i>	699

Calculation of Combined Subgrade Compression Rigidity Coefficient in Stratified Soil <i>Pan Fulan</i>	709
Optical Measurement of Stress and Strain in Three Dimensional Assemblies of Photoelastic Granular Material <i>H. G. B. Allersma</i>	719
Centrifuge Calibration of Soil Behavioural Models <i>R. Y. K. Liang, J. Mitchell</i>	729
Finite Element Analysis of Centrifugal Excavations <i>R. Azevedo, H. Y. Ko</i>	739
SECTION 13 INTERACTION PROBLEMS	
Evaluation of Computational Methods for Offshore Structures – Fluid Interaction Through Model Experiments and Large-Size Tests in the North Sea <i>K. Kokkinowrachos, J. Hoefeld and A. Mitzlaff</i>	751
Numerical Modelling of Gas-Droplet Flows for Industrial Application <i>C. Benocci, J-M. Buchlin, V. Michelassi and P. Weinacht</i>	773
Natural and Forced Hydrodynamic Oscillations of Cylinder Bundles <i>B. K. Kim, M. N. Dhaubhadel and D. P. Telionis</i>	787
The Interaction of Surface Waves with Undersurface Currents <i>R. A. Skop</i>	801
SECTION 14 COMPUTATIONAL ASPECTS	
The Use of Boundary Elements as a Computer Aided Design Tool <i>C. A. Brebbia, A. C. Mercy</i>	809
Overview of Numerical Methods at ENEL as Compared with Observational Data for Structural and Hydraulic Systems <i>M. Fanelli, G. Giuseppetti</i>	835
Styrene Production Simulation by a Computer Program <i>C. M. A. Pérez, J. F. P. Gomes</i>	869
Numerical Evaluation of the Green Function for the Laplace Equation with Applications to Linear and Non-Linear Potential Problems by the Boundary Element Method <i>J. T. Katsikadelis, E. J. Sapountzakis</i>	877
Application of a Computer Code for the Generation of Orthogonal Grids in 3D Complex Terrain <i>J. Anagnostopoulos, G. Bergeles</i>	891
Numerical Grid Generation Technique for 3D Complex Spaces <i>J. Glekas, G. Bergeles, N. Athanassiadis</i>	905
Validity of Correlations Given by the Least-Square Method Calculated by a TI-58 Program <i>J. F. P. Gomes</i>	917
Computational Model for a Class of Distributed Parameter System <i>S. N. Sarwal, J. W. Graham</i>	925