### Program of the International Scientific Symposium MODELING OF STRUCTURES

## and Opening of the New Building of the FACULTY OF CIVIL ENGINEERING

## THURSDAY, 13 November 2008

10:00 Registration of participants (at the Faculty of Civil Engineering or Ero Hotel)

### 12:00 OPENING OF THE NEW BUILDING AND OPENING OF THE SYMPOSIUM

## University Choir - Anthems

WELCOMING SPEECHES

Rector of the University of Mostar, Vlado Majstorović, Ph.D.

## Mayor of Mostar, Ljubo Bešlić

Dean of the Faculty of Civil Engineering, Ivo Čolak, Ph.D.

String Quintet of Mostar Symphonic Orchestra – musical number

The new building and symposium, being under auspices of the Ministry of Science, Education and Sports of the Republic of Croatia, will be opened by Minister **Dragan Primorac** on behalf of the ministry.

## University Choir - Gaudeamus

Banquet in the new building of **the Faculty of Civil Engineering** 

13:30 OPENING OF THE EXPOSITION OF COMPUTER GRAPHICS OF **Roberta B. Barbarić** 

## **Buildings in Plasmatic Space**

The exposition will be presented by Snježana Vasilj, Ph.D.

String Quintet of Mostar Symphonic Orchestra – musical number

The exposition will be opened by the dean, Ivo Čolak, Ph.D.

## 14:00 INTRODUCTORY LECTURES (P1)

## Blaž Gotovac, Ph.D.

THE RECONSTRUCTION OF THE OLD BRIDGE

Faculty of Civil Engineering and Architecture University of Split

Branko Katalinić, Ph.D.

QUO VADIS HOMO TECHNICUS?

Vienna University of Technology, Austria

<u>17:00 - 20:00 LECTURES (P2)</u>

Krstevska, L.; Kustura, M. & Tashkov, Lj. DYNAMIC TESTING OF THE OLD BRIDGE IN MOSTAR

Glibić, M.

A POSSIBLE REASONS OF CRACKS ON THE ARCH OF THE OLD BRIDGE

Kalman, T. & Sigmund V. PREDICTION OF BEHAVIOR OF THE INFILLED R/C FRAMES UNDER LATERAL LOADS

**Ožbolt, J.; Kožar, I. & Travaš, V.** PENETRATION OF STEEL ANCHOR INTO A CONCRETE BLOCK – NUMERICAL CONTACT SIMULATION

**Ožbolt, J.; Balabanić, G. & Periškić, G.** EFFECT OF DAMAGE ON CHLORIDE PENETRATION PROFILES IN CONCRETE STRUCTURES

**Fischinger, M. & Isaković, T.** SIMPLIFED METHOD FOR THE IN ELASTIC SEISMIC ANALYSIS OF REINFORCED CONCRETE VIADUCTS

Fischinger, M. & Isaković, T. MACRO MODEL TO PREDICT IN ELASTIC SEISMIC RESPONSE OF REINFORCED CONCRETE STRUCTURAL WALLS

18:45 - 19:00 Coffee break

Marušić, M.; Gotovac, B.; Kozulić, V. & Gotovac, H. THE ADAPTIVE NUMERICAL MODEL OF A GIRDER ON ELASTIC BASE

## **Perić, Lj.** MODELING AND DESIGN OF DEFORMABLE DUCTILE STRUCTURES RESISTANT TO EARTHQUAKE EFFECTS USING THE BEARING CAPACITY METHOD

Sesartić, R.; Kozulić, V. & Gotovac, B. THE MODELING OF ARCH STRUCTURES

Mihanović, A.; Trogrlić, B. & Akmadžić, V. NONLINEAR NUMERICAL MODEL FOR SEISMIC ANALYSIS

# FRIDAY, 14 November 2008

## 10:00 - 13:00 LECTURES (P3)

Kostić, S.; Lee, C. & Filippou, F.C. EVALUATION OF RESULTANT PLASTICITY AND FIBER BEAM-COLUMN ELEMENTS FOR THE SIMULATION OF THE NONLINEAR RESPONSE OF STEEL STRUCTURES

**Lozzi-Kožar, D. & Kožar, I.** INTEGRAL AND DIFFERENTIAL FORMULATION IN RESERVOIR ROUTING

Šćepanović, B.; Gil Martin, L.M.; Lučić, D.; Hernandez Montes, E. & Aleksić, S. FEM MODELLING OF ECCENTRICALY PATCH LOADED STEEL I-GIRDERS

Sigmund, Z. & Sigmund, V. A POSSIBILITY OF SIMPLE MODELING OF FRAME WITH INFILL

**Zejak, R. & Kopitović Vuković, N.** CALCULATION MODEL FOR A CASE OF EXPERIMENTAL TESTING ON SLENDER RC COLUMNS

Koleková, Y.; Petronijević, M. & Schmid, G. SIMPLE MODELS FOR SOIL-STRUCTURE INTERACTION

#### 11:30 - 11:45 Coffee break

## Fischinger, M.; Kramar, M. & Isaković, T.

MODELLING SEISMIC RESPONSE OF PRECAST RC INDUSTRIAL BUILDINGS WITH STRONG CONNECTIONS

**Penava, D.; Sigmund, V.; Petronijević, M. & Schmid, G.** VIBRATION ANALYSIS OF FRAME STRUCTURE EXCITED WITH RAYLEIGH WAVES USING SPECTRAL ELEMENTS

Milašinović, Z.; Kalajdžisalihović, H. & Raič, M. APPLICATION OF UNSTEADY NUMERICAL MODEL MIKE 11 IN THE DETERMINATION OF RESISTANCE COEFFICIENT

Matošević, D.; Sigmund, V. & Zovkić, J. EXPERIMENTAL TESTING OF OF MASONRY AND MASONRY PIERS

**Milašinović, D.** RHEOLOGICAL-DYNAMICAL THEORY OF MULTIAXIAL FATIGUE

### <u>16:00 – 19:45 LECTURES (P4)</u>

Mašović, S. THE EFFECTS OF DIFFERENTIAL SHRINKAGE IN COMPOSITE CONCRETE GIRDERS MADE CONTINIOUS

**Bjelanović, A.; Rajčić, V. & Čizmar, D.** NEW POSSIBILITIES OF STRUCTURAL DESIGN USING ARTIFICIAL INTELLIGENCE TECHNIQUES

Nikolić, Ž.; Mihanović, A. & Živaljić, N. RESONANT RESPONSE SPECTRUM IN SEISMIC ANALYSIS OF STRUCTURES

Markić, R.; Mucić, S.; Radnić, J.; Harapin, A. & Grgić, N. NUMERICAL MODEL FOR THE NONLINEAR ANALYSIS OF SPATIAL FRAMEWORK SYSTEMS

### Draganić, H.; Varevac, D. & Markulak, D.

APPLICABILITY OF WAVE EQUATION AND FEM FOR DETERMINATION OF THE BRIDGE EIGENVALUES IN TRANSVERSAL DIRECTION

Mihanović, A. & Nikolić, Ž. & Smoljanović, H. ELASTIC RESPONSE SPECTRUM OF WIND FORCE

17:30 - 17:45 Coffee break

Morić, D. & Hadžima-Nyarko, M. SDOF MODEL IN SEISMIC ANALYSIS

**Šunjić, G.; Radnić, J. & Harapin, A.** BEHAVIOR OF SUBMERGED STRUCTURES UNDER SEISMIC LOAD CONDITIONS

Radić, I.; Markulak, D. & Džeba, I. NON-LINEAR MODELLING OF CASTELLATED BEAMS IN BENDING

**Galić, M.; Marović, P. & Nikolić Ž.** 3D NUMERICAL MODELLING OF PRESTRESSED CONCRETE STRUCTURES

### Ević E.; Anton, H. & Čilić, D.

MODEL AND STATIC ANALYSIS OF STANDARDIZED STRUCTURE SPAN OF THE ROAD BRIDGE MADE OF PREFABRICATED ELEMENTS

**Dimitrakopoulos, E. G.; Kappos, A. J. & Makris, N.** DIMENSIONAL RESPONSE ANALYSIS OF STRUCTURES FOR RECORDS WITHOUT DISTINCT PULSES

### Trogrlić, B.; Mihanović, A. & Balić, I.

PLASTIFICATION OF RC FRAME UNDER MONOTONIC LOADING

**Kožul, M.; Ćubela, D. & Ivanković, V.** STRUCTURAL SAFETY ANALYSIS OF THE BUILDING GLASS BANK IN MOSTAR

20:30 Gala dinner at Ero Hotel

### SATURDAY, 15 November 2008

09:00 - 11:00 LECTURES AND CONCLUSIONS (P5)

**Ćubela, D.; Radnić, J.; Harapin, A. & Grgić, N.** EXPERIMENTAL TESTS AND NUMERICAL VERIFICATION OF OMNIA SLABS BEHAVIOR

### Soče, H. & Akmadžić, V.

JOINTS WITH HIGH STRENGTH BOLTS CLASS 10.9 UNDER THE TRANSIENT LOADING - EXPERIMENTAL AND THEORETICAL ANALYSIS

**Barać, D. & Lukić, I.** MODELING OF A PROTECTIVE STRUCTURE FOR THE CONSTRUCTION OF DEEP FOUNDATIONS IN RIVERBED

Kozulić, V.; Gotovac, B. & Čolak, I. MULTILEVEL MESH FREE METHOD FOR THE TORSION PROBLEM

Vrdoljak, A. ON THE COMPUTATION OF ZEROS OF POLYNOMIALS

**Čolak, I.; Gotovac, B. & Kozulić, V.** NUMERICAL ANALYSIS OF 3D STRUCTURES WITH CONSTANT PROPERTIES IN THE THIRD DIRECTION

Rahimić, S. & Višekruna, V. PROPOSES A METHODOLOGY AND ARCHITECTURE SUITABLE FOR GENERATING THE PROCESS PLAN OF MACHINING PARTS

CLOSING OF THE SYMPOSIUM

11:30 – 15:00 Excursion and group lunch

Time duration for individual presentation is limited to 15 minutes.