



SPECIAL SESSION: **SS-2**

International Workshop: **ROLE OF RESEARCH INFRASTRUCTURES IN PERFORMANCE-BASED EARTHQUAKE ENGINEERING**

Chair:

M. N. Fardis, fardis@upatras.gr, Co-ordinator of SERIES

Department of Civil Engineering
Univ. of Patras, Patras, Greece.

Z. Rakicevic, zoran_r@pluti.iziis.ukim.edu.mk, IZIS' Project Partner Manager in SERIES

Institute of Earthquake Engineering and Engineering Seismology, IZIS
"SS Cyril and Methodius" University in Skopje, Republic of Macedonia

A 23-strong consortium of the key actors in Europe's seismic engineering research (including 3 industrial beneficiaries) is running EC's FP7 Project SERIES – "Seismic Engineering Research Infrastructures for European Synergy" that aims at bridging the two gaps of RTD in experimental earthquake engineering and structural dynamics: (a) between Europe and the US or Japan, and (b) between European countries with high seismicity but less advanced RTD infrastructures on one hand and some more technologically advanced but not so seismic Member States on the other. It will do so by integrating the entire European RTD community in earthquake engineering via: A concerted program of Networking Activities, fostering a sustainable culture of co-operation among all research infrastructures and teams active in European earthquake engineering; Co-ordinated Transnational Access of Users to a world class portfolio combining the largest EU's Research Infrastructures; and Joint innovative Research toward new fundamental technologies and techniques promoting efficient and joint use of the research infrastructures, in three areas where the beneficiaries excel at world level.

One day workshop within the framework of SERIES will be held in Ohrid, organized by IZIS in conjunction with the 14ECEE. It will have significant international participation and will provide a forum for presentation, among others, of research achievements on the theme of the workshop, as well as relevant important RTD results of Transnational Access activities. Total 18 abstracts are submitted and will be presented on the workshop.

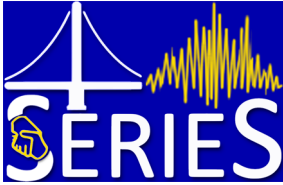
Contributing authors are expected to submit full papers for the workshop's proceedings by November 15th. The Proceedings are expected to be published by Springer, as part of its reputed series in Geotechnical, Geological and Earthquake Engineering.

Contributing authors will receive a complimentary copy of the workshop's proceedings.

Date of the workshop: Thursday, September 2, 2010

Time: 13:00 – 18:30

Place: Hotel Granit, Ohrid



SERIES

SEISMIC ENGINEERING RESEARCH INFRASTRUCTURES
FOR EUROPEAN SYNERGIES

Grant Agreement Number 227887



SERIES Workshop:

“Qualification of Research Infrastructures” and

**“Role of Research Infrastructures in Performance-based
Earthquake Engineering”**

Thursday, September 2, 2010, 8.30-19.30, Hotel Granit, Ohrid (MK)

P R O G R A M M E

Part I: “Qualification of Research Infrastructures”

1. 08.30 – 08.45: Opening – Welcome
2. 08.45 – 09.10: Impact of qualification of experimental facilities in Europe on Industry, Standardization and Accreditation Bodies, Large Testing Facilities. (M.Zola -P&P LMC [IT])
3. 09.10 – 09.35: Testing Procedures and Standards Requirements in Large Testing Facilities. (H.Sucuoglu – METU [TR])
4. 09.35 – 10.00: Instrumentation and Equipment Management in Large Testing Facilities. (O.Bursi – Univ. of Trento [IT])

Coffee Break (10.00 – 10.15)

5. 10.15 – 10.40: Nonstructural Testing Research Needs to Support Performance Based Seismic Design (J.Gatscher - Schneider Electric -USA)
6. 10.40 – 11.05: Shaking Table_3D-Vision & remote control for qualification of components and systems at ENEA C.R. Casaccia (G. De Canio - ENEA C.R. Casaccia [IT])
7. 11.05 – 11.30: On Quality Enhancement in Seismic Testing Laboratories based on Efficient IT Infrastructure Deployment (G.M.Atanasiu, M.H.Zaharia – Technical Univ. of Iasi [RO])
8. 11.30 – 12.00: Panel Session: Development of a Common Protocol for the qualification of research infrastructures in earthquake engineering.
9. 12.00 – 12.05: Closure

**Part II: “Role of Research Infrastructures
in Performance-based Earthquake Engineering”**

1. 13.00 – 13.20: How can experimental testing contribute to performance based earthquake engineering (F.Taucer, A.Pinto – JRC [IT])
2. 13.20 – 13.40: Towards a new European facility for advanced seismic testing (E-FAST) (F.Marazzi, I.Politopoulos, A.Pavese – CEA, JRC, EUCENTRE [FR, IT])
3. 13.40 – 14.00: EUCENTRE TREES LAB: Laboratory for Training and Research in Earthquake Engineering and Seismology (S.Peloso, A.Pavese, C.Casarotti – EUCENTRE [IT])
4. 14.00 – 14.20: Experimental Earthquake Engineering Research at LNEC (E.Coelho, A.Campos Costa, P.Candeias – LNEC [PT])
5. 14.20 – 14.40: Structural and Behaviour Constraints of Large Scale Experiments (Z.Rakicevic, D.Jurukovski, A.Bogdanovic – IZIIS [MK])
6. 14.40 – 15.00 Computer Vision System for advanced high precision displacement measurements (F.Lunghi, A.Pavese, S.Peloso, I.Lanese – EUCENTRE [IT])

Coffee Break (15.00 – 15.15)

7. 15.15 – 15.35 Use of large numerical models and high performance computers in geographically distributed seismic tests (U.Dorka, F.Obon – Kassel Univ. [DE])
8. 15.35 – 15.55 Experimental evaluation of the seismic performance of steel buildings with passive dampers using real-time hybrid simulation (T.Karavasilis, J.Ricles, R.Sause, C.Chen – Univ. of Oxford, Lehigh Univ., San Francisco State Univ. [UK, USA])
9. 15.55 – 16.15 Performance limits for reinforced concrete columns under severe displacement cycles (B.Acun, H.Sucuoglu – METU [TR])
10. 16.15 – 16.35 Experimental Study of Progressive Collapse of Conventional and Post-Tensioned Steel Frames (A.Tsitos, G.Mosqueda – Univ. Buffalo [USA])
11. 16.35 – 16.55 Shaking table testing of models of historic buildings and monuments - IZIIS' experience (V.Shendova – IZIIS [MK])
12. 16.55 – 17.15 Experimental investigation of the behaviour of pinned beam-to-column connections to pure shear monotonic and cyclic excitation (I.Psycharis, H.Mouzakis, G.Kremmyda – National Technical Univ. of Athens [GR])

Coffee Break (17.15 – 17.30)

13. 17.30 – 17.50 Current State of Art of the Role of Research Infrastructures on Performance Based Earthquake Engineering and Future Perspectives for Europe (B.Ozturk – Nigde University [TR])
14. 17.50 – 18.10 Cross-facility Validation of Dynamic Centrifuge Testing (U.Cilingir, S.Haigh, C.Heron, G.Madabhushi, J.-L.Chazelas, S.Escoffier – Cambridge Univ., LCPC [UK, FR])
15. 18.10 – 18.30 Laminar Shear Box Design for Soil-Structure Interaction Studies (L.Dihoru, M.Dietz, A.J.Crewe, C.A.Taylor – Bristol Univ. [UK])
16. 18.30 – 18.50 Dynamic behaviour of reinforced soil: theoretical modelling versus shaking table experiments (C.Boutin, S.Hans, J.Soubestre, C.Taylor, E.Ibraim, M.Dietz, L.Dihoru, M.Lefik, M.Wojciechowski, L.Batali, H.Popa, J.Snaebjornsson, R.Sigbjornsson – Bristol Univ. [UK])
17. 18.50 – 19.10 Experimental site effect studies and field testing on a model SDOF structure in EUROSEISTEST (K.Pitilakis, A.Anastasiadis, D.Pitilakis – Aristotle Univ. of Thessaloniki [GR])
18. 19.10 – 19.30 Innovative Artificial Intelligence Methods for Minimizing the Risk in Post-Seismic Interventions (F.Leon, G.M.Atanasiu, M.H.Zaharia – Technical Univ. of Iasi [RO])