



## Symposium Program

**26 April 2007**

<b>Romanian Academy, Main building, Hall of Honour</b>			
8:30-9:00	<i>Preliminary registration (at entrance)</i>		
9:00-9:40	<b>Opening Ceremony</b>	Embassy of Japan in Romania Ministry of Development, Public Works and Housing Romanian Academy Japan International Cooperation Agency, Romania Building Research Institute, Japan National Building Research Institute, Bucharest Technical University of Civil Engineering, Bucharest National Center for Seismic Risk Reduction, Bucharest	
9:40-9:50	Musical moment (A.Hamada and ...)		
		<b>Authors</b>	<b>ID</b>
9:50-10:20	<b>Opening Lecture</b> <i>Seismic Evaluation and Retrofit of Existing Buildings and Houses</i>	<b>T. Okada</b>	K4
<b>Romanian Academy, Library building, Conference Hall</b>			
10:20-11:00	<i>Coffee break and registration (lobby - ground floor)</i>		
11:00-15:00	<i>Session on Structural Engineering – JICA Project</i>		
11:00-11:30	<b>Keynote Lecture</b> <i>Seismic Isolated Structures Applied to from Detached Houses to High-Rise Apartments in Japan</i>	<b>A.Wada,</b> N. Kani, S. Hirano, H. Kamikouchi, M. Kimura	K6
11:30-11:45	Goals and Activities of the JICA Technical Cooperation Project on Reduction of Seismic Risk in Romania	R. Vacareanu, <b>H. Kato</b>	J1
11:45-12:00	Romanian Code for Assessment of Existing Buildings. Concepts and Methods	T. Postelnicu, <b>D. Zamfirescu,</b> E. Lozinca	J7
12:00-12:15	Overview on Seismic Evaluation and Retrofitting within JICA Technical Cooperation Project on Reduction of Seismic Risk in Romania	<b>M. Seki,</b> R. Vacareanu, B. Chesca, M. Pavel, E. Lozinca, D. Cotofana, B. Georgescu, T. Kaminosono	J8
12:15-13:15	<i>Lunch Break (on-site, lobby - ground floor)</i>		
13:15-13:45	<b>Keynote Lecture</b> <i>Recent Advances in Seismic Rehabilitation of Existing Concrete Buildings in Japan</i>	<b>S. Sugano</b>	K5
13:45-14:00	Seismic Rehabilitation of an Existing Soft and Weak Groundfloor Building. Case Study	A.B. Chesca, M. Seki, <b>R. Vacareanu,</b> T. Okada, B. Georgescu, T. Kaminosono, H. Kato	J9
14:00-14:15	Seismic Rehabilitation of an Existing pre-1940 Building. Case Study	<b>E. Lozincă,</b> M. Seki, B. Georgescu, H. Kato, R. Văcăreanu, T. Kaminosono	J10
14:15-14:30	Displacement Capacity Estimation for RC Columns. Comparison Between Analytical and Experimental Results	<b>V. Popa,</b> D. Cotofana	J11
14:30-14:45	Ductility Upgrade Retrofitting Solutions for Reinforced Concrete Columns. Experimental Study	<b>D. Cotofana,</b> V. Popa	J12



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<b>Romanian Academy, Library building, Conference Hall</b>			
14:45-15:00	Experimental Research on Low-Reinforced Concrete Walls	<b>M. Pavel</b> , M. Seki , C. Pavel, T. Kaminosono	J13
<i>15:00-17:00 Session on Seismic Input and Ground Conditions – JICA Project</i>			
15:00-15:30	<b>Keynote Lecture</b> <i>Current Status on Design Ground Motion for Buildings in Japan</i>	<b>I. Okawa</b>	K3
15:30-15:45	Examples of Invasive and Non-Invasive Methods for Estimation of Shear-Wave Velocity Profile in Bucharest	<b>A. Aldea</b> , H. Yamanaka, S. Fukumoto, N. Poiata, E. Albota	J4
<i>15:45-16:00 Coffee break (lobby - ground floor)</i>			
16:00-16:15	NCSRR Digital Seismic Network in Romania	A. Aldea, N. Poiata, T. Kashima, <b>E. Albota</b> , S. Demetriu	J5
16:15-16:30	Instrumental Response of Buildings within JICA Project in Romania	A. Aldea, <b>S. Demetriu</b> , E. Albota, T. Kashima	J6
16:30-16:45	Geotechnical in Situ Investigation used for Seismic Design of Buildings	<b>C. Arion</b> , E. Calarasu, C. Neagu, M. Tamura	J2
16:45-17:00	Laboratory Investigation for Estimation of Seismic Response of the Ground	C. Arion , <b>C. Neagu</b>	J3
<i>17:00-17:45 Session on Information and Education of Population – JICA Project</i>			
17:00-17:30	<b>Keynote Lecture</b> <i>Vibration Experiment, Education Materials and WebGIS Simulators to Promote Seismic Retrofitting</i>	<b>N. Fukuwa</b>	K8
17:30-17:45	Education of Citizens for Earthquake Strengthening of Buildings in Romania	<b>E.S. Georgescu</b> , H. Kato, M. Seki, K. Miyara	J14
<i>19:15-21:15 Symposium Dinner at "Carul cu Bere" Restaurant Stavropoleos Street No.3-5, Bucharest</i>			



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<b>Romanian Academy, Library building, Conference hall</b>			
<b>9:00-12:45</b> <i>Session on Seismic Input and Ground Conditions - Contributions</i>			
9:00-9:30	<b>Keynote Lecture</b> <b><i>Seismicity of Romania</i></b>	<b>M. Sandulescu</b>	
9:30-9:45	The French Accelerometric Network (RAP): Current State in 2007	<b>P. Guéguen</b> , C. Péquegnat, A. Souriau, P.-Y. Bard, P. Dominique, M. Régnier	03
9:45-10:00	Characteristics of Seismic Ground Motions and Responses of Base Isolated Buildings in Japan	<b>K. Tamura</b> , H. Kambara, Y. Nakamura	11
10:00-10:15	Critical Aspects of Ground Motion Simulations for Seismic Hazard Assessment	<b>M.B. Sørensen</b> , K. Atakan , N. Pulido	15
10:15-10:30	2D FEM Simulation of Earthquake Ground Motion in Sedimentary Basin	<b>A. Zaicenco</b> , V. Alcaz, I. Sandu	08
<b>10:30-10:45</b> <i>Coffee break (lobby - ground floor)</i>			
<b>10:45-11:15</b> <b>Keynote lecture</b> <b><i>From Noise Measurements to Site Effects: Main Learnings from the SESAME Project and ESG2006 Blind Test</i></b>			
		<b>P. -Y. Bard</b> , C. Cornou, M. Ohrnberger, M. Wathelet and SESAME participants	K1
11:15-11:30	Probabilistic Seismic Hazard Assessment in Terms of Engineering Parameters in Greece	<b>L. Danciu</b> , E. Sokos, G-Akis Tselentis	25
11:30-11:45	Estimation of the Pseudoacceleration Response Spectra in Sites of Mexico	<b>J.M. Jara-Guerrero</b> , M. Jara-Diaz, H. Hernández	30
11:45-12:00	Physical and Dynamic Properties of the Quaternary Sedimentary Layers in and around Bucharest City	<b>A. Bala</b> , I. Zihan, V. Ciugudean, V. Raileanu, B. Grecu	07
12:00-12:30	<b>Keynote lecture</b> <b><i>Selection and Scaling of Earthquake Motions for Input into Dynamic Analyses</i></b>	<b>E. Rathje</b> , A. Kottke	K2
12:30-12:45	Two Statistical Models for Long Term Seismic Hazard Assessment in Vrancea, Romania	<b>N. Hurukawa</b> , C.M. Imoto	28
<b>12:45-13:30</b> <i>Lunch Break (on-site, lobby - ground floor)</i>			
<b>13:30-14:00</b> <i>Poster session (lobby 1<sup>st</sup> floor)</i>			
<b>14:00-17:45</b> <i>Session on Structural Engineering - Contributions</i>			
14:00-14:15	Nonlinear Finite Element Analysis of Low-Reinforced Concrete Walls	<b>K. Sugimoto</b> , M. Pavel, M. Seki, C. Pavel, K. Naganuma	57
14:15-14:30	Experimental Study on the Controlling of the Failure Mode and Strength of the RC Column for the Soft-landing Retrofitting System	<b>M. Teshigawara</b> , T. Watanabe, H. Fukuyama, K. Kusunoki, S. Oda, A. Suzuki	83
14:30-14:45	Experimental Study on the Force Transfer Mechanism at the R/C Connection Surface with Post-tension Force to Develop the Soft-landing Base-isolation System	<b>K. Kusunoki</b> , A. Tasai, M. Teshigawara, H. Fukuyama, A. Suzuki, S. Oda	84
14:45-15:00	Residual Seismic Capacity Estimation of RC Frames with Concrete Block Infill Based on their Crack Widths	<b>Y. Nakano</b> , H. Choi, N. Takahashi	85



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<b>Romanian Academy, Library building, Conference hall</b>			
15:00-15:15	Mitigation of Damage Due to Crack of RC Elements Utilizing High Performance Fiber Reinforced Cementitious Composites	<b>H. Fukuyama</b>	75
15:15-15:30	Spatial Distribution of Strength and Displacement Demands for Romanian Earthquakes	D. Lungu, <b>I.G. Craifaleanu</b>	79
<i>15:30-15:45 Coffee break (lobby - ground floor)</i>			
15:45-16:00	Performance-based Criteria for Design of Steel Frame Structures in Seismic Areas	<b>F. Dinu</b> , D. Grecea, D. Dubina	40
16:00-16:15	Some Aspects Regarding Strengthening and Rehabilitation of the Medium Size Buildings of National Romanian Broadcasting Station Complex	<b>M. Mironescu</b> , A. Stanescu, T. Brotea, R. Comanescu	86
16:15-16:30	Seismic Rehabilitation of a Non-ductile Historic Concrete Structure by Supplementary damping	<b>K. Miyamoto</b> , A.S. Gilani	53
16:30-16:45	Base and Roof Isolation for Earthquake Retrofitting and Protection of Existing Buildings in Armenia	<b>M. Melkumyan</b>	63
16:45-17:00	Loss Estimation from Scenario Earthquakes in the Republic of Moldova	<b>V. Alkaz</b> , A. Zaicenco, I. Isiciko, I. Sandu	61
17:00-17:15	Assessment of Seismic Risk in the Upper Tinee Valley, Southeastern France	<b>E. Bertrand</b> , A.-M. Duval, A. Saad	66
17:15-17:45	<b>Keynote lecture</b> <i>Performance-Based Seismic Design of 3D R/C buildings with the aid of Inelastic Analysis</i>	<b>A. Kappos</b>	K7
<i>17:45-18:00 Closing Ceremony</i>			



**Poster session**

**Section 1 – SEISMICITY, SEISMIC HAZARD AND SITE EFFECTS**

MACROSEISMIC INFLUENCING FROM THE DEEP FOCUS EARTHQUAKES OF VRANCEA AREA ON TERRITORY OF THE SOUTH-WESTERN REGIONS OF UKRAINE

*R. Pronyshyn, S. Verbytskyi, A. Stasjuk, I. Sapuzhak*

CRUSTAL SEISMICITY AND ACTIVE FAULT SYSTEM IN THE SE OF ROMANIA

*V. Raileanu, A. Bala, M. Radulian, C. Dimu, V. Diaconescu, E. Popescu, D. Mateciuc, M. Popa*

SOME ASPECTS OF SEISMICITY, GEODYNAMIC AND PECULIARITY OF SEISMIC RISK OF UKRAINIAN CARPATHIANS

*A. Nazarevych, A. Kendzera, L. Nazarevych*

SEISMICITY OF BUCOVINA IN 2006

*A. Stasjuk, R. Pronyshyn, S. Verbytskyi, I. Sapuzhak*

DATA FUSION TECHNIQUE FOR SEISMIC RISK ASSESSMENT IN VRANCEA AREA

*M. Zoran, D. Mateciuc*

CARPATHIAN SEISMOLOGICAL NETWORK OF UKRAINE

*S. Verbytskyi, I. Sapuzhak, A. Stasjuk, Yu. Verbytskyi*

EARTHQUAKE HAZARD ANALYSIS IN WESTERN ALGERIA REGION

*Y. Bouhadad*

ENGINEERING GROUND MOTION PARAMETERS ATTENUATION RELATIONSHIPS FOR GREECE

*L. Danciu, G-Akis Tselentis*

DEVELOPING THE UHS FOR AN IMPORTANT BUILDING IN TEHRAN AND COMPARISON AMONG ITS UHS AND WELL-KNOWN DESIGN SPECTRA

*M. Firoozi Nezamabadi, F. Yaghoobi Vayeghan*

LOCAL SITE EFFECTS BASED ON IN SITU MEASUREMENTS IN BUCHAREST CITY, ROMANIA IN THE FRAME OF NATO SfP PROJECT 981882

*A. Bala, J.R.R. Ritter, D. Hannich, S.F. Balan, C. Arion*

EFFECTS OF GROUND MODELLING ON SEISMIC SITE RESPONSE

*N. Mezouer, M. Hadid, A. Messaoudi*

SITE RESPONSE EVALUATION IN BUCHAREST URBAN AREA

*N. Mândrescu, M. Radulian, GH. Mărmureanu, B. Grecu*

SIMULATION OF GROUND MOTION FOR SEISMIC RISK REDUCTION

*Z. Zhao, J. Xu*

APPLICABILITY OF THE HORIZONTAL TO VERTICAL SPECTRAL RATIOS FOR SITE EFFECTS ESTIMATES IN ROMANIA AND IN BUCHAREST

*B. Grecu, N. Mandrescu, M. Radulian, D. Tataru, M. Popa, V. Raileanu, A. Bala*

PROBABILISTIC SEISMIC HAZARD MAP OF ROMANIA IN TERMS OF MACROSEISMIC INTENSITIES

*L.Ardeleanu, G.Leydecker, K.-P.Bonjer, H.Busche, T.Schmitt, D.Kaiser*



ATTENUATION PROPERTIES OF SEISMIC WAVES IN THE CRUST IN THE VRANCEA REGION (ROMANIA)

*L.Ardeleanu*

DETERMINISTIC EARTHQUAKE SCENARIOS FOR BUCHAREST

*C.-O. Cioflan, A. Marmureanu, G.- F. Panza*

EXPLOITATION OF TUNISIAN SEISMICITY DATA FOR SEISMIC HAZARD EVALUATION OF CIVIL ENGINEERING FRAMEWORK

*Z.B. Chulli, H.Zenati*

NEW DATA CONCERNING THE GEOMORPHOLOGY AND GEOLOGY OF THE BUCHAREST METROPOLITAN AREA

*Bălteanu D., Enciu P., Popescu D.C.*

ENGINEERING GROUND MOTION PARAMETERS ATTENUATION. RELATIONSHIPS FOR GREECE

*L. Danciu, G-Akis Tselentis*

## **Section 2 – SEISMIC VULNERABILITY AND SEISMIC RISK**

SEISMIC VULNERABILITY OF EXISTING BUILDINGS DESIGNED BY ALGERIAN CODE RPA99/VER. 2003 USING THE CAPACITY SPECTRUM METHOD (CSM)

*F. Bakhti, S. Zermout, Y. Mehani, M. Inukai, T. Azuhata, T. Saito*

DAMAGE SPECTRA AND DAMAGE MAPS FOR ROMANIAN VRANCEA EARTHQUAKES

*I.G. Craifaleanu*

VULNERABILITY ASSESSMENT OF GRENOBLE (FRANCE)

*P. Guéguen, C. Michel*

VULNERABLE HOUSING TYPOLOGIES IN BUCHAREST, ROMANIA

*M. Bostenaru Dan*

SEISMIC RISK AND VULNERABILITY ASSESSMENT: CASE STUDY IN THE HISTORICAL CENTRE OF MONS (BELGIUM)

*A.-M Barszez, A. Sabbe, H. Wilquin, S. Vandyck, Y. Quinif, T. Camelbeeck, P. Rosset*

SEISMIC VULNERABILITY EVALUATION OF STEEL STRUCTURES IN A PETROCHEMICAL PLANT

*A. Rezaei-Tabrizi and F. Nateghi-A*

COMPARISON BETWEEN TWO SIMPLIFIED AND EXACT MODELLING METHODS FOR SEISMIC VULNERABILITY ASSESSMENT OF RC STACKS IN THERMAL POWER PLANTS

*A. Rezaei-Tabrizi*

HAZARD RISK MITIGATION AND EMERGENCY PREPAREDNESS: COMPREHENSIVE REVIEW

*K. Miyamoto, A.S. Gilani*

PRECAUTIONS FROM DIFFERENT POINT OF VIEW TO REDUCE SEISMIC RISK LEVEL IN COUNTRYSIDE OF TURKEY. A CASE STUDY: KAYNAŞLI

*D. Güney, U. Durna*

SEISMIC RISK ASSESSMENT FOR YEREVAN CITY, REPUBLIC OF ARMENIA

*L. Gevorgyan*



ASSESSING THE COST-EFFECTIVENESS OF SEISMIC RISK REDUCTION OPTIONS  
IN OIL INDUSTRY

*K. Nasserasadi, M. Ghafory-Ashtiany*

CREATING SCENARIOS FOR SEISMIC RISK REDUCTION USING GEOGRAPHIC INFORMATION  
SYSTEMS

*G. M. Atanasiu, F. Leon*

ASSESSMENT OF VULNERABILITY OF R/C FRAMES WITH MASONRY INFILL WALLS IN VIEW OF  
EC8

*E. Vaseva*

EARTHQUAKE LOSS SCENARIOS FOR İSTANBUL

*M. Erdik, E. Durukal, M. Bas, M. Ilkisik*

DAM RISK ASSESSMENT IN ARMENIA

*V. Khondkaryan, M. Mnatsakanyan*

**Section 3 – SEISMIC REHABILITATION**

INTEGRATED INCREMENTAL SEISMIC REHABILITATION: A PRACTICAL APPROACH  
TO REDUCING RISK IN EXISTING VULNERABLE BUILDINGS

*D. Hattis , F. Kringgold*

NEW TRENDS IN EARTHQUAKE PROTECTION ON SEISMIC SAFETY OF R.C. MOMENT  
RESISTANT FRAME STRUCTURES

*B. Csák, O. Kegyes-Brassai, G. Nagy*

SEISMIC RETROFITTING OF JACK ARCH MASONRY FLOORS

*M.R. Maheri*

SEISMIC REHABILITATION OF A REINFORCED CONCRETE BUILDING

*A. Hemmati, A. Kheyroddin*

SEISMIC BEHAVIOUR EVALUATION AND STRENGTHENING OF RC BUILDINGS

*H. Varum, A. Costa, J. Molina, A. Pinto*

SEISMIC RETROFITTING OF BUILDINGS USING ENERGY DISSIPATIVE CONNECTORS  
CONSIDERING SOIL-STRUCTURE INTERACTION EFFECTS

*V. A. Matsagar*

BASE ISOLATION FOR SEISMIC RETROFIT OF STRUCTURES: APPLICATION  
TO A HISTORIC BUILDING IN ROMANIA

*K. Miyamoto , A.S. Gilani*

SEISMIC RETROFIT OF MASONRY AND RC ELEMENTS WITH FRP COMPOSITES –  
RESEARCH AND APPLICATION

*T. Nagy-György, V. Stoian, D. Dan, C. Dăescu, D. Diaconu, M. Moşoarcă*

**Section 4 – SEISMIC ANALYSIS AND DESIGN**

BEHAVIOUR FACTORS FOR BUILDINGS UNDER REPEATED VRANCEA EARTHQUAKES

*M. Iancovici, G. Ionică*



DESIGN OF ENERGY DISSIPATIVE DEVICES WITH OPTIMAL CHARACTERISTICS  
USING STRUCTURAL CONTROL ALGORITHMS

*A. Soltani, M. Ziyaeifar*

INVESTIGATION OF COMBINATION METHODS IN ADAPTIVE PUSHOVER

*A. Shoostari, H.R. Vejdani-Noghreiyani*

EUROPEAN AND NORTH AMERICAN PROVISIONS FOR DESIGN OF STEEL AND  
COMPOSITE SHEAR WALLS

*I. Hadjiyaneva, B. Belev*

STRUCTURAL JOINT FOR BUILDING FRAME PLACED IN SEISMIC AREAS  
THEORETICAL AND EXPERIMENTAL STUDIES

*D. Dan, V. Stoian, T. Nagy-Gyorgy, C. Dăescu*

THE NEW NATIONAL ANNEX OF THE HUNGARIAN CODE MSZ EN 1998-1-1:2006  
AND THE PANEL STRUCTURES

*C. Kegyes, O. Kegyes-Brassai*

SEISMIC DESIGN OF BRIDGES SUPPORTED ON HYSTERETIC BEARINGS

*M. Jara-Díaz, J.M. Jara-Guerrero, J.J. Álvarez, J.R. Casas*

CONTRIBUTIONS TO LINEAR SEISMIC ANALYSIS OF THE HIGH VOLTAGE ELECTRIC  
EQUIPMENT USING THE EXPERIMENTAL MODAL ANALYSIS

*I. Manea, D. Ilincioiu*

SEISMIC RESPONSE OF ADJACENT STRUCTURES CONNECTED WITH MAXWELL DAMPERS

*A. V. Bhaskararao, R. S. Jangid*

THEORETICAL INTERPRETATION IN TERMS OF Q FACTOR OF INVERTED PENDULUM  
STRUCTURES (ONE-STORY FRAME) WITH COMPOSITE COLUMNS

*C. Campian*

STRENGTH REDUCTION FACTORS THAT INCLUDE LOW-CYCLE FATIGUE ON STIFF AND SOFT  
SOILS

*M. P. Nino*

THE APPLICABILITY OF FVD TECHNIQUE FOR BUILDINGS SUBJECTED TO VRANCEA  
EARTHQUAKES

*M. Iancovici*

RESPONSE ANALYSIS OF A 3 STORY REINFORCED CONCRETE BUILDING WITH ISOLATED BASE  
SUBJECTED TO GROUND MOTION EXCITATION

*Ojeda-Ruiz, J., Flores-Aburto, C., Parra-Meza, A.*

CONSIDERATIONS ABOUT PUSHOVER ANALYSIS

*S. Ginju, M. Ieremia*

STEEL PLATE SHEAR WALL, INTRODUCTION TO SEISMIC BEHAVIOR AND DESIGN

*M. Hooshmandzadeh*

THE TECHNIQUE OF THE OPPOSITE PANELS TO SHEAR-COMPRESSION TESTS ON MASONRY  
WALLS

*M. Sassu*





**Section 5 – URBAN DISASTER MITIGATION AND EARTHQUAKE DAMAGE**

INTERDISCIPLINARY STUDIES AND ACTIONS OF PARASEISMIC REHABILITATIONS  
OF THE CULTURAL HERITAGE IN SMALL VILLAGES IN EUROPE, WORKSHOPS  
WITH STUDENTS ON SITE

*H. Wilquin*

FOR A RESPECTFUL INTERVENTION ON THE HOUSING IN A SEISMIC ZONE  
POINTE-À-PITRE AND ABYMES IN GUADELOUPE

*M. Robin-Clerc*

DISASTER MANAGEMENT: OPTIMIZATION OF HEALTH CARE FACILITIES GIS APPROACH

*K.O. Teshebaeva*

DAMAGES CAUSED BY BOUMERDES EARTHQUAKE AND RECOMMENDATIONS FOR  
SEISMIC MITIGATION ALGERIA

*K-E. Ramdane, F. Djellouli, M. Hamane, D. Nedjar, M. Bensafi, M. Hamada, K. Kognei,  
K. Meguro, M. Miyajima, T. Saito*

ANALYSIS OF PRESENT DAY SERVICEABILITY OF SEVERAL STRUCTURES GRAVELY  
AFFECTED BY THE 1977 SEISM

*B.M. Patraş, D.N. Dima*

PROJECT FOR STUDY OF SEISMIC-HYDROGEOLOGICAL PHENOMENA IN BALKAN AREA

*M. Matova, G. Frangov, P. Ivanov*

THE 21st OF MAY 2003 EARTHQUAKE EFFECTS ON THE ENVIRONMENT OF ALGIERS

*A.Zerzour and H. Zelloum*

THE ANTISEISMIC CONSTRUCTION' EVOLUTION IN THE HISTORICAL PAST OF TAJIKISTAN

*Mukimov R., Niyazov D.*

EARTHQUAKE RISK MITIGATION MASTERPLAN FOR İSTANBUL

*M. Ilkisik, M. Bas, M. Erdik, E. Durukal*