



THE NEWSLETTER OF THE EUROPEAN ASSOCIATION FOR EARTHQUAKE ENGINEERING

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Volume 23, Number 1

Dear Colleagues,

This is the first issue of the electronic newsletter that we hope to publish twice a year to inform you about the activities of EAGE and about earthquake engineering related developments mainly in Europe but also from abroad. In this first issue we have tried to summarise the present structure of our Association. We would like to express our thanks to the German Society of Earthquake Engineering and Structural Dynamics and to the Austrian Association for Earthquake Engineering and Structural Dynamic for supplying input to the Newsletter. Even though it is a new type of publication from EAGE, we would like to number these newsletters as the continuation of the Bulletin of the European Association for Earthquake Engineering that was published until 2002 up to Volume 22. Thus we would like to start as Volume 23, Number 1. You are all invited to send information about your national associations and about all related earthquake information. We would be happy to publish views and opinion papers that would address issues in earthquake engineering, earthquake science and mitigation policies.

Atilla Ansal

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31. Association for Ukrainian Earthquake Engineering, *Prof. Yu. I. Nemchynov*
32. Yugoslav Association for Earthquake Engineering, *Prof. Bozidar Pavicevic*

OBJECTIVES

The objectives of EAEE are to promote regional cooperation among scientists and engineers in the field of earthquake engineering;

- * *to advance the research front in the field of earthquake engineering,*
- * *to contribute and to support all related research and educational activities,*
- * *to play an active role in organizing the research and educational activities in Europe in the field of earthquake engineering,*
- * *to play an active role in all aspects of mitigation of the effects of earthquakes in Europe and set a model for other national, regional and international organisations to follow in earthquake risk mitigation.*

The association will accomplish these objectives by:

- * *holding regular conferences every four years in Europe;*
- * *holding regional seminars and workshops for young scientists and engineers;*
- * *exchanging information, data and expertise for establishing data banks;*
- * *establishing and extending technical cooperation and joint projects among Members;*
- * *providing and introducing new publications, research reports, and a technical journal in the field of Earthquake Engineering;*
- * *cooperating with the activities of international societies with which the Association is affiliated, and working together with suitable NGOs and non-profit organisations to improve and advance the science, social and educational aspects of earthquake engineering as well as for mitigating the earthquake risk in seismically active member countries through joint projects;*
- * *making all efforts to raise funds for research and for improving the capabilities of the Association to become a non-profit and non-governmental organisation with well established financial plan and perspectives.*

TASK GROUPS

TG1 on "Performance Based Design"

Coordinators: Prof. Paolo Negro and Prof. Nuray Aydinoglu

TG2 on "Strong Motion Records and for Engineering Applications"

Coordinator: Prof. Nicholas N. Ambraseys

TG3 on "Structural Vulnerability and Earthquake Scenario"

Coordinator Prof. Mauro Dolce

TG4 on "Effects of Earthquake Vertical Component"

Coordinator: Prof. Panayotis Carydis

TG5 on "Seismic Isolation of Structures"

Coordinator: Dr. Alessandro Martelli

TG6 on "Geotechnical Earthquake Engineering"

Coordinator: Prof. Atilla Ansal

TG7 on "Development of Shaking Table Testing Techniques"

Convenor: Prof. R. Severn

TG8 on "Seismic Behaviour of Irregular and Complex Structures"

Coordinator: Prof. Avigdor Rutenberg

TG9 on "Repair and Strengthening in Seismic Regions"

Coordinator: Prof. Alberto Castellani

TG10 "Seismic Aspects of Historical Monument Preservations"

Coordinator: Prof. Costas A. Symakezis

EAAE Earthquake Protection Policy Statement

The European Association for Earthquake Engineering joins individual members and national earthquake engineering societies in more than 30 countries in the European area, and exists to promote cooperation and interaction between researchers and practitioners, to support research and education, and to play an active part in earthquake risk mitigation in Europe. The EAAE Executive invites all EAAE Member Associations and individual members to use this statement as a basis for efforts to promote earthquake risk mitigation in Europe at a national and international level.

The EAAE Executive Committee, Sept 14th, 2004

Preamble

1. Earthquakes occur regularly in the European-Mediterranean area, and are frequently destructive. During the 20th century they claimed over 130,000 lives in the countries of today's EU alone (and over 400,000 in the wider European-Mediterranean area), as well as vast but uncalculated damage to property and economic activity. Over the last 40 years improved understanding and the experience of earthquake loss has driven the progressive development of new and better codes and regulations for building in earthquake areas; and buildings and facilities constructed to today's codes are unlikely to be heavily damaged or destroyed by expected earthquakes.

2. But throughout the European area, most of the built environment was created before these codes were formulated and enforced, and without the benefit of today's understanding of the effects of earthquakes. Many of these buildings and facilities (which include schools, hospitals, and highway structures used continuously by the public) are unsafe by today's standards and are liable to be seriously damaged or collapse in foreseeable earthquakes. Even where buildings are built to the codes, some damage will occur, since codes are designed for life-safety, rather than for damage-prevention; and strong earthquakes are liable to be disruptive to the urban infrastructure virtually everywhere. Many historic centres of huge cultural importance are at risk.

3. However, the technical means to substantially reduce this risk are now available. Relatively straightforward modifications to existing structures will in most cases be sufficient to reduce risks to more acceptable levels, and a number of guidance documents to support such modification are now available, including a European Standard.

4. **The EAEE considers it unacceptable in today's world that European citizens are daily exposed to major risks to their life which are well-understood and avoidable.** This policy document sets out a programme of action which needs to be undertaken in order to bring earthquake risks under control. It is addressed to national governments and municipal authorities and to the parliamentarians and councillors who shape their policies; to business corporations and other owners of large estates; and to ordinary citizens concerned with their own and their fellow-citizens' safety.

Statement

5. The EAEE calls on all national governments of earthquake-prone countries in the European and Mediterranean area to:

- bring regulations for newly constructed facilities into line with best European practice (as set out in the current European Standard, EC8),
- ensure that inspection systems are in place everywhere to ensure that new facilities are built as designed,
- urgently carry out assessments of all public buildings and other structures for which they have responsibility against established safety criteria,

starting with schools and hospitals, and put in place programmes of strengthening or replacement of those found to be unsafe,

- establish national professional and technical education and training programmes to ensure that those who design and build new facilities understand earthquake hazards and the means to counter them,
 - promote, by support for research, a better understanding of the risks faced in their territory, and the means to build and modify the country's specific buildings,
 - ensure that emergency services are well-trained, well-equipped and sufficient in number to deal with the likely consequences of foreseeable future earthquakes,
 - promote the awareness, by the public and their elected political representatives, of the earthquake risks faced by society and the means available to them to reduce these risks and enhance personal safety,
 - provide financial and technical support to earthquake risk mitigation activities in poorer countries.
6. The EAEE calls on all municipal authorities in moderate and high-risk zones to:
- review the specific earthquake hazards faced within their jurisdiction
 - ensure that inspection systems for new buildings are adequate
 - urgently examine the safety of all public buildings and set in place programmes to strengthen or replace those found to be unsafe
 - examine the entire urban system to form an assessment of the safety of its components (residential building stock, buildings and streets used by the public, lifelines, emergency services) and the system as a whole,
 - consider means to reduce this risk through legislation, tax incentives, planning and other instruments
 - ensure that earthquake risk mitigation is a key element of their urban sustainability planning
 - promote awareness of earthquake risk amongst all members of the community and community organizations
7. The EAEE calls on private companies and other owners of large building estates in zones of moderate and high earthquake risk to:
- carry out safety assessments of their buildings, and strengthen or replace those found to be unsafe,
 - ensure that all new buildings are built to the latest available earthquake codes,
 - promote awareness of earthquake risk and personal safety among all staff and employees.
8. The EAEE further calls on the EU to:
- consider issuing a directive requiring all member states to review existing buildings used by the public for earthquake safety and to bring them to acceptable life-safety standards,
 - promote earthquake safety (along with other disaster mitigation activities) as key elements of the planned urban sustainability goals for all EU cities,
 - enhance its research support for earthquake mitigation in the wider European area.

BULLETIN OF EARTHQUAKE ENGINEERING

TABLE of CONTENTS

VOLUME 1 NUMBER 1 April 2003

<i>Editorial</i>	Atila Ansal
<i>An Incremental Response Spectrum Analysis Procedure Based on Inelastic Spectral Displacements for Multi-Mode Seismic Performance Evaluation</i>	M. Nuray Aydinoglu
<i>Seismic vulnerability of historical constructions. A contribution</i>	Carlos Sousa Oliveira
<i>Comparing Loss Estimation with Observed Damage: A Study of the 1999 Kocaeli Earthquake in Turkey</i>	Robin Spence, Julian Bommer, Domenico Del Re, Juliet Bird, Nuray Aydinoglu, and Shigeko Tabuchi
<i>Earthquake Damage Scenarios of The Building Stock of Potenza (Southern Italy) Including Site Effects</i>	Mauro Dolce, Angelo Masi, Maria Marino, and Marco Vona
<i>What is a poor quality strong-motion record?</i>	John Douglas
TECHNICAL NOTE: <i>Istanbul Earthquake Rapid Response and the Early Warning System</i>	M.Erdik, Y.Fahjan, O.Özel, H.Alcik, A.Mert, and M.Gül

VOLUME 1 NUMBER 2 August 2003

<i>Style-of-Faulting in Ground-Motion Prediction Equations</i>	John Douglas Julian J. Bommer and Fleur O. Strasser
<i>Damage Potential of the 1999 Athens, Greece, Accelerograms</i>	George Mylonakis, Elia Voyagaki, and Thomas Price
<i>A semi-active oleodynamic damper for earthquake control: Part 1: Design, manufacturing and experimental analysis of the device</i>	Giorgio Serino and Antonio Occhiuzzi
<i>A semi-active oleodynamic damper for earthquake control: Part 2: Evaluation of performance through shaking table tests</i>	Antonio Occhiuzzi and Giorgio Serino
<i>Seismic design of symmetric structures for accidental torsion</i>	Silvia L. Dimova and Ilia Alashki

VOLUME 1 NUMBER 3 December 2003

<i>Uncertainty Analysis of Strong-Motion and Seismic Hazard</i>	R. Sigbjörnsson and N. N. Ambraseys
<i>Preliminary Investigation of the Molise (Italy) Earthquakes of 31 October and 1 November 2002</i>	V. Pinto, G. Tsionis, E. Mola, and F. Taucer
<i>Seismic Vulnerability Assessment of Gravity Load Designed R/C Frames</i>	Angelo Masi
TECHNICAL NOTE: <i>Nonlinear Rate Dependent Model of High Damping Rubber Bearing</i>	Robert Jankowski

VOLUME 2 NUMBER 1 April 2004

<i>The Influence of Strong-Motion Duration on the Seismic Response of Masonry Structures</i>	Julian J. Bommer, Guido Magenes, Jonathan Hancock, and Paola Penazzo
<i>Seismic microzonation: a comparison between geotechnical and seismological approaches in Pointe-à-Pitre (French West Indies)</i>	Benoît LeBrun, Anne-Marie Duval, Pierre-Yves Bard, Olivier Monge, Myriam Bour, Sylvain Vidal and Hubert Fabrio
<i>Comparative study of the seismic hazard assessments in European National seismic codes</i>	Julián García-Mayordomo, Ezio Faccioli and Roberto Paolucci
<i>On the incorporation of the effect of crustal structure into empirical strong ground motion estimation</i>	J. Douglas, P. Suhadolc, and G. Costa
<i>Design earthquakes in the UK</i>	R.M.W Musson

VOLUME 2 NUMBER 2 August 2004

<i>The Bam Earthquake of 26 December 2003</i>	Farrokh Nadim, Masoud Moghtaderi-Zadeh, Conrad Lindholm, Arild Andresen, Svein Remseth, Mohammad Javad Bolourchi, Mohammad Mokhtari, and Eirik Tvedt
<i>Teaching Structural Hazards Awareness: New Partnerships for Mitigation and Community Response</i>	Marla A. Petal, Utku Celep, Cüneyt Tüzün, and Rebekah Green
<i>A Probabilistic Displacement-Based Vulnerability Assessment Procedure for Earthquake Loss Estimation</i>	Helen Crowley, Rui Pinho, and Julian J. Bommer
<i>Seismic performance of RC frames designed to Eurocode 8 or to the Greek Codes 2000</i>	Telemachos B. Panagiotakos and Michael N. Fardis
<i>Discussion of "Uncertainty Analysis of Strong-Motion and Seismic Hazard" by R. Sigbjörnsson and N.N. Ambraseys</i>	Julian J. Bommer, Frank Scherbaum, Fabrice Cotton, Hilmar Bungum & Fabio Sabetta
<i>Reply to the Discussion of J. J. Bommer, F. Scherbaum, F. Cotton, H. Bungum & F. Sabetta on the article "Uncertainty Analysis of Strong-Motion and Seismic Hazard"</i>	R. Sigbjörnsson and N.N. Ambraseys

VOLUME 2 NUMBER 3 December 2004

<i>Complex site effects in Thessaloniki (Greece): I. Soil structure and comparison of observations with 1D analysis</i>	Dimitrios Raptakis, Konstantia Makra, Anastasios Anastasiadis and Kyriazis Pitilakis
<i>Complex site effects in Thessaloniki (Greece): II. 2D SH Modelling and engineering insights</i>	Dimitrios Raptakis, Konstantia Makra, Anastasios Anastasiadis and Kyriazis Pitilakis
<i>Comparing Loss Estimation with Observed Damage in a Zone of Ground Failure: A study of the 1999 Kocaeli Earthquake in Turkey</i>	J.F. Bird, J.J. Bommer, J. D. Bray, R. Sancio, and R. J. Spence
<i>Reliability of Building Inventories in Seismic Prone Regions</i>	Sibylle Steimen, Donat Fäh, Domenico Giardini, Martin Bertog and Silvio Tschudi

VOLUME 3 NUMBER 1 (Forthcoming)

<i>Equations for the estimation of strong ground motions from shallow crustal earthquakes using data from Europe and the Middle East: Horizontal peak ground acceleration and spectral acceleration</i>	N. N. Ambraseys, J. Douglas, S. K. Sarma and P. M. Smit
<i>Equations for the estimation of strong ground motions from shallow crustal earthquakes using data from Europe and the Middle East: Vertical peak ground acceleration and spectral acceleration</i>	N. N. Ambraseys, J. Douglas, S. K. Sarma and P. M. Smit
<i>Frictional behaviour of steel-PTFE interfaces for seismic isolation</i>	M. Dolce, D. Cardone, and F. Croatto
<i>New developments in seismic risk assessment in Italy</i>	Giacomo Di Pasquale, Giampiero Orsini, and Roberto W. Romeo
TECHNICAL NOTE: <i>Experimental investigations on laminated rubber bearings</i>	Sarvesh Kumar Jain and Shashi Kant Thakkar

VOLUME 3 NUMBER 2 The Tenth Mallet-Milne Lecture (Forthcoming)

<i>The Tenth Mallet-Milne Lecture</i>	Zygmunt Lubkowski
<i>A Study of Piles during Earthquakes: Issues of Design and Analysis</i>	W. D. Liam Finn

The German Society of Earthquake Engineering and Structural Dynamics (DGEB)

The German Society of Earthquake Engineering and Structural Dynamics (DGEB), founded in 1983, is a non-profit association of scientists such as engineers, geophysicists, seismologists and other professionals. Its aim is to contribute to the development and dissemination of innovative research results in the fields of earthquake engineering and structural dynamics by actively supporting the interaction between academia and the construction sector. The society, which currently has about 250 members, is also active in bringing together representatives from administrative bodies, academia and the construction industry in order to promote the development of codes and standards, with many of its members being active in the corresponding committees. In addition, it organizes scientific workshops and conferences on a regular basis, the latter together with the sister associations OGE and SGEb, that is the Austrian and the Swiss Society of Earthquake Engineering and Structural Dynamics, respectively. Apart from publishing a series of conference and workshop proceedings, the society also issues a bulletin which appears twice a year as part of the journal "Der Bauingenieur".

The Austrian Association for Earthquake Engineering and Structural Dynamics (OGE)

The Austrian Association for Earthquake Engineering and Structural Dynamics (OGE) was founded 1977 at Technical University of Vienna. The proponents were Rudolf Grossmayer and Rainer Flesch. The first president was Prof. Parkus. Since his death, Prof. Franz Ziegler is the President.

OGE is an Austrian non-profit association with the goal to support research and to disseminate results in the field of Earthquake Engineering and Structural Dynamics. The association provides assistance to the practical engineers working in structural and mechanical engineering. OGE has about 80 members. From the beginning there was a close cooperation with the German- and the Swiss Association for Earthquake Engineering. Every two years a D-A-CH conference is organized by one of the three countries. Also an informative D-A-CH bulletin was started, which was normally published 3 times a year. Now the three associations have the possibility to publish papers two times per year in the well-known journal BAUINGENIEUR.

OGE always contributed to the activities of EAEE. The first event was the organization of the 14th European Regional Seminar in Ossiach/ Austria in 1988. In 1994 OGE organized the 10th European Conference on Earthquake Engineering in Vienna.

OGE was always very active to provide travel funds for the participation of young scientists in international EE&SD conferences. Further, OGE supported also the work of Austrian specialists in European code project teams.

FORTHCOMING EVENTS

26-27.8.2005 *Fourth European Workshop on the Seismic Behaviour of Irregular and Complex Structures, Thessaloniki, GREECE*, Contact: **Prof. Andreas J. Kappos**, Aristotle University of Thessaloniki, Department of Civil Engineering, University Campus, 54124 Thessaloniki, GREECE, Phone: (+30) 2310995743 – Fax: (+30) 2310995614 – mailto: ajkap@civil.auth.gr, web site: <http://taz.civil.auth.gr/4ewics>

27.8-1.9.2005 *International Conference on Earthquake Engineering to Mark 40 Years of IZiIS-Skopje, Earthquake Engineering in the 21st Century, Skopje-Ohrid, MACEDONIA*, Contact: **Ms. Vesna Kitanovska**, Institute of Earthquake Engineering and Engineering Seismology- IZiIS University "Ss Cyril and Methodius", Skopje, Macedonia, Phone: +389 231 76155; Fax: +389 231 22163; mailto: EE-21C@iziis.edu.mk; web site: <http://www.iziis.edu.mk/EE-21C>

3-8.9.2006 *First European Conference on Earthquake Engineering and Seismology, Geneva, Switzerland*, Conference Organizers: **SYMPORG SA**; 7, avenue Krieg, CH-1208 Geneva, Switzerland; Phone: +41 22 839 8484; Fax: +41 22 839 8485; mailto: ECEES2006@symporg.ch; web site: <http://www.ECEES.org>

We cordially invite all interested scientists and engineers to be an Individual Member of EAEE. It is 30 Euros per year with electronic yearly subscription to Bulletin of Earthquake Engineering published by Springer. All the necessary information is in the EAEE web pages (<http://www.eaee.org>).