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REPORT OF THE CENTRAL OFFICE ACTIVITIES

SEPTEMBER 2007 – SEPTEMBER 2008

GENERAL

The main activities of the Central Office during the past year were:

- Drafting the Minutes of the Second Executive Committee Meeting. After the suggestions and approval of the Executive Committee, the revised minutes of the second Executive Committee Meetings were forwarded to all the Executive Committee Members, National Delegates, Honorary Members, the representatives of ESC. They were also inserted in EAGE web pages and were printed in the EAGE Newsletter No. 26.
- The EAGE income and expenditures for 2007 were audited in March 2008 by an officially approved audit company. The Annual Activity and Audit Reports (in Turkish) for 2007 were submitted to the Istanbul Government Authorities for the first time. As an NGO EAGE is required to submit Annual Activity and Audit reports each year before the end of April. Following the approval of the Executive Committee the Audit Report were circulated to all members of EAGE.
- The Secretary General contributed to the preparation of the FP7 Project Proposal titled “Seismic Engineering Research Infrastructures for European Synergie” (SERIES) submitted for the call on FP7-INFRASTRUCTURES-2008-1 by the Coordinator M.Fardis. The proposal was reviewed and received a very high grade (14 out of 15). The Project Coordinator was informed that the proposal will be supported as FP7 project. EAGE is one of the participants under the umbrella of Bogazici University, Kandilli Observatory and Earthquake Research Institute. The project is composed of 23 partners mostly universities and research centres from Greece, Italy, France, UK, Germany, Slovenia, Belgium, Romania, Turkey, and Macedonia. The main activity of the EAGE Central Office will be the coordination of work package WP4 named as “European Integration - European and international co-operation of research infrastructures”. The objectives in the proposal were summarized as: “The European Association of Earthquake Engineering, established in Turkey as an NGO, and its Secretary General, Prof. A. Ansal will lead NA3 towards its general objectives: (i) outreach to, and integration of, the European S/T community in earthquake engineering, and (ii) co-operation of research infrastructures at the European and international level.”
- Monitoring the EAGE funds and EAGE Bank Accounts in Istanbul,
- Preparations for the EAGE posters for the MERCEA 2008 in Reggio Calabria, Italy and ESC 2008 in Crete, Greece;

- Correspondence with EAEE National Delegates and Task Group Coordinators;
- Correspondence with members, monitoring and updating membership records;
- Organising the third EAEE Executive Committee Meeting on Sep. 7, 2008 in Crete, Greece

The Secretary General participated to:

- the official meeting on “The Reduction of Earthquake Risks in Europe” with the EU Directorates on 13 March 2008. The participants from EAEE besides me were Carlos Oliveira, Mauro Dolce, André Plumier, and Mário Lopez. From the EU Commission the participants were Michel Chapuis DG RTD, Georgios Katalagarianakis DG RTD, Christophe Lesniak DG RTD, Bjorn Vangelsten DG RTD, Fiorella Perotto DG ENV, Matthias Martens DG REGIO, Graca Carvalho BEPA, Mateo Bonifacio BEPA, Michel Geradin JRC, and Frederic Sgard OECD. As EAEE participants we made relatively short presentations; (1) History and activities of EAEE (A.Ansal); (2) Seismicity in Europe (C.S.Oliveira); (3) Impact of past and future earthquakes (M.Dolce); (4) Causes of damage and preventive actions (A.Plumier); (5) A Case Study (A.Ansal) that lasted about an hour. The pdf versions of the presentations can be downloaded from www.eaee.org. In the remaining part of the meeting M.Lopez made a brief summary that can be titled as “Proposed tasks for the EU Commission” to initiate the discussion between the participants. The responses received from different DG representatives were in general positive. In summary we were told that Brussels can take a more active role in Earthquake Risk Mitigation but the first initiatives should come from the member states.
- International Conference on Geotechnical Engineering (ICGE08) during March 24 - 26, 2008 in Hammamet, Tunisia.
- Meeting related to the European Earthquake Engineering Protection Initiative in Milan on 29 April 2008. The [Agenda](#) and the [Minutes](#) of the Meeting is given in the Appendix.
- 2008 Seismic Engineering International Conference commemorating the 1908 Messina and Reggio Calabria Earthquake (MERCEA'08) during 8-11 July 2008 in Reggio Calabria, Italy.

to represent EAEE and to attend technical sessions and to promote special issues for BEE and new books for the GGE book series. He made brief presentations about the EAEE and about Task Group activities in some of these meetings.

EXECUTIVE COMMITTEE

The Secretary General was informed on August 20, 2008 by an e-mail from Martin Juhas son of Prof. Emilia Juhasova that our dear colleague and fellow Executive Committee Member Prof. Emilia Juhasova passed away on July 26, 2008. An Obituary prepared by her son Martin Juhas is printed on the back page of the forthcoming Newsletter and is also uploaded to EAEE web pages.

The EAEE Executive Committee conducted a postal balloting among its members and it was decided unanimously to invite Prof. Jakob Eisenberg to the EAEE Executive Committee as the first Reserve Member. Prof. Eisenberg kindly accepted our invitation and he will be serving as a member of the EAEE Executive Committee in the remaining period.

Executive Committee approved by postal balloting the following proposals;

- Approval for printing about 200 copies of the 2008 EAEE Newsletter to be distributed during the forthcoming ESC and 3rd Greek Conference on Earthquake Engineering and Engineering Seismology.
- Approval for printing about 500 copies that will cost us approximately 400 € including the posters to be displayed.
- Approval for paying approximately 613€ based on the conversion rate on the invoice date to the Audit Company for the Audit report cost.
- Approval of the Audit Report by all Executive and Audit Committee Members.

- **EAAE Executive Committee Decision** is as follows: **Individual and Organisational Members should have paid all their membership fees for the previous consecutive four years in order to participate to the EAAE General Assembly, to vote and to be candidate for any post.**
- Endorsement of the ECCOMAS Thematic Conference on "Computational Methods in Structural Dynamics and Earthquake Engineering" (COMPDYN 2009) by EAAE.
- Endorsement of the Earthquake and Tsunami Conference in Istanbul by EAAE.

EUROPEAN SEISMOLOGICAL COMMISSION

- The first Joint ESC-EAAE Executive Committee will be held on September 7, 2008 in Crete, Greece on the occasion of the 31st General Assembly of the European Seismological Commission

MEMBERSHIP

The Central Office sent out e-mail letters to Member Organisations almost every six months informing them about their membership dues. Twenty seven of the EAAE National Member Associations have paid their National membership dues for 2007 and six have not. While only ten of the EAAE National Member Associations have paid their National membership dues for 2008 and twenty three have not.

The Central Office have been continuously making efforts to increase the number of individual membership by sending invitation letters via e-mail to the participants of recently held conferences and to the members of EAAE National Associations and by distribution of EAAE Newsletter with the membership form in the conferences and meetings. The number of individual membership has increased to 144 by the 4th of September 2008. Out of these 144 members 76 (50 electronic and 16 paper copy) have paid for 2008.

BUDGET Sep. 2007- Sep.2008

	<u>INCOME</u>	<u>EXPENDITURE</u>
BALANCE FROM SEPTEMBER 2007	1,136.13 €	
Membership fees from		
<i>National Members</i>	2,774.00 €	
<i>Corporate Members</i>	196.00 €	
<i>Individual Members - Electronic Subs.</i>	1,599.60 €	
<i>Individual Members - Paper Copy Subs.</i>	639.00 €	
<i>Individual Members - Electronic+Paper Copy Subs.</i>	294.00 €	
Secretary of the Central Office		2,750.00 €
Office Expences		
<i>Auditing Cost</i>		613.00 €
<i>Rate for bank account and Interest</i>		73.94 €
SPRINGER		
<i>Hard Copy(2007+2008)</i>		1,753.00 €
SUM	6,638.73 €	5,189.94 €
DIFFERENCE	1,448.79 €	
SPRINGER DEBT	839.00 €	
BALANCE FOR SEPTEMBER 2008	609.79 €	

TASK GROUPS

During 2007-2008 term most of the Task Groups were not very active. The reports received by Central Office as a response to the letter forwarded to each coordinator are given below.

TG5 on "Seismic Isolation of Structures"

Coordinator: Prof. Alessandro Martelli, Italy

The report sent by A.Martelli is given in the [Appendix](#).

TG6 on "Earthquake Geotechnical Engineering"

Coordinator: Prof. Kyriasiz Pitilakis (Greece)

1. We agree with the proposed revision of the Rules of EAEE Task Groups
(However we believe that some of the new rules are quite severe and "rigid")
2. For the TG Microzonation the activities that are scheduled for the next period are the following:
 - Prepare and send an invitation to all EAEE members and national societies to establish a list of all Microzoning studies that have been performed the last 20 years in all European Countries (only list of references: Reports, papers etc)
 - Ask to all national European EE Societies to appoint a national delegate for the microzonation studies
 - The national delegates should gather-classify and summarize the microzonation studies performed so far in each country
 - Next September (2009) we plan to organize a workshop of all national delegates to
 - (a) evaluate the existing know how and experience,
 - (b) start preparing a European Manual for Microzonation which should be ready at the end of 2010
3. To facilitate the exchange of data etc it would be necessary to approve and establish a web site or a simple FTP under the EAEE web site.

TG7 on " Development of Shaking Table and Reaction Wall Testing Techniques"

Coordinator: Prof. Roy T. Severn, UK

In the matter of outputs of my TG, I gave the keynote address at the Conference in Porto last October with a general paper with the title "Development of Experimental Methods in Structural Dynamics", and I am currently writing an article for Anil Chopra on "The Early History of Shaking Tables"

TG8 on "Seismic Behaviour of Irregular and Complex Structures"

Coordinator: Prof. Victor Rutenberg, Israel

The report sent by V.Rutenberg is given in the [Appendix](#).

TG11: Seismic Design, Assessment, and Retrofit of Bridges

Coordinator: Prof. Andreas Kappos

The report sent by A.Kappos is given in the [Appendix](#).

BULLETIN OF EARTHQUAKE ENGINEERING (BEE)

Approximately four years after we started to publish BEE, I was informed on November 4, 2006 by Springer that BEE has been selected by ISI and will be included in SCIE and CC/Engineering, Computing, and Technology starting from the first issue of 2007. Thus, BEE will get its first impact factor with JCR 2008 in 2009. If you look at the SCI under earthquake engineering, BEE is one of the five journals under this topic.

Bulletin of Earthquake Engineering was indexed by SSI as of 2007 and received its first impact factor for 2007 recently. I am very happy to inform you that BEE was ranked as the second among the five Earthquake Engineering Journals [Eartq. Eng. and Str. Dyn. (1.386), BEE (1.125), Earthquake Spectra (1.090), Soil Dynamics and EE (0.620), Journal of EE (0.560)].

Recently, Springer introduced an important decision for BEE; starting as of 2008 colour pictures in the printed version of the journal will be free of charge. Both of these two developments had very positive impact on the number of manuscript submissions.

In 2003 and in 2004, the number of manuscripts submitted was 26 for each year. In 2005 the number of submitted manuscripts increased to 38 and in 2006 to 51. In 2007, including two forthcoming Special Issues, the number of manuscripts submitted was 65. In the first eight months of 2008, 57 manuscripts were submitted. It is very likely that in the coming four months of 2008 the number of submitted manuscripts will increase with respect to 2007.

With respect to printed manuscripts; the first volume of BEE had 13 papers, 2 technical notes and an editorial, second volume had 13 papers, one discussion and one reply, and third volume had 10 papers, 1 technical note and an introduction to the Mallet-Milne lecture. Due to the increase in number of issues to 4, the number of manuscripts in volume 4 was 25 and in volume 5 it was 27. In 2008 this number will increase to 34.

During 2007, Bryan Skipp has retired from the Editorial Board and Robin Spence was invited to join the Editorial Board. Later, Julian Bommer resigned from the Editorial Board and John Douglas was invited to replace him. Due to increase in the submitted manuscripts, Rui Pinho and Roger Musson were also invited to join the BEE Editorial Board starting as of 2008. At the present, Editorial Board is composed of 32 distinguished researchers.

Two new Special Issues were printed during the past two years:

- 11th Mallet Milne Lecture by Robin Spence; Guest Editor: Paul Greening. Published as Vol.5 No.2.
- The H/V technique: capabilities and limitations based on the results of the SESAME project; Guest Editor: Pierre-Yves Bard. Published as Vol.6 No.1.

There will be three new forthcoming Special Issues:

- Integrated approach to fault rupture- and soil-foundation interaction; Guest Editors: Alain Pecker and George Gazetas. Almost ready to be published as Vol.6 No.4.
- Earthquake Protection of Bridges; Guest Editor: Andreas Kappos. Will be ready to be published as Vol.7 No.2.
- Structural Seismic Safety Assessment; Guest Editor: Carlos S. Oliveira. Most of the manuscripts are submitted and will be published most likely as Vol.7 No.4

There are three more Special Issue proposals that will start in the following months:

- BoB-CoDE Project, Bonefro Building - Comparison of Damage Estimates; Guest Editors: Mauro Dolce and Agostino Goretti

- Seismic Eurocode EC8: Future Changes and Related Issues; Guest Editors: George Gazetas and Alain Pecker
- Ambient Noise Measurements on Soil and Buildings; Guest Editor: Marco Mucciarelli

I would like to acknowledge and express my gratitude for all the support given by the Editorial Board Members as reviewers and as authors. I would also like to acknowledge the referees listed below in the alphabetical order in taking part in the review process. As you may notice, the numbers of BEE reviewers are increasing and we are becoming more international.

BOOK SERIES ON GEOTECHNICAL, GEOLOGICAL AND EARTHQUAKE ENGINEERING

Even though this activity is established independent of EAEE, in the long run it can be partly official book series of EAEE to publish the conference proceedings as well books that may come out of TGs. Springer offers 20% to EAEE Individual Members for this book series.

Titles in press:

- Andrew Dawson (Ed.): Water in Road Structures - Movement, Drainage & Effects
- L.A. Mendes-Victor, C.S. Sousa Oliveira, J. Azevedo, A. Ribeiro (Eds.): The 1755 Lisbon Earthquake: Revisited,
- Milutin Srbulov: Geotechnical Earthquake Engineering

Title in preparation:

- Michael N. Fardis: Seismic Design, Assessment and Retrofitting of Concrete Buildings - with reference to EN Eurocode 8

NEWSLETTER

The Central Office drafted the first issue of the EAEE Newsletter for 2008. This issue for 2008 V26/1 will be an electronic newsletter, it will be forwarded to all EAEE members and earthquake related organisations and it will be inserted in to the EAEE web pages when all the reviews are completed.

INTERNET - WEB

The Internet-EAEE web Pages that were created in 1995 were updated continuously. The format of the web was last revised in March 2006. The web page is modified in early 2007 to enable the EAEE Individual Members with electronic subscription to download all the published issues of the Bulletin of Earthquake Engineering via secure connection procedure using special ID and passwords specified by the Central office. The present address of the EAEE Web Pages still is: <http://www.eaee.org>.

Atila Ansal
Secretary General

Appendices



Agenda

European Earthquake Engineering Protection Initiative (EEPI)

Meeting: Tuesday 29 April 2008

Place : Riva Group Headquarters
Viale Certosa 249
Milano, ITALY

Time	Subject
11:00 – 12:00	Progress Report and Relevant Information
12:00 – 13:00	Options for an EEPI Project
13:00 – 14:00	Strategic Research Agenda
14:00 – 15:00	Distribution of the Work Load
15:00 – 16:00	Next Activities
16:00 – 17:00	Discussion and Miscellaneous Items

Coffee and snacks will be provided during the meeting. The tight schedule was made in order to allow arrival and departure the same day.

Working Document for the Meeting on April 29th in Milano

The following information is provided in order to prepare the discussion in the meeting.

1. Financing

Serious work for a strategic research agenda and lobbying for earthquake engineering requires a financial background. The possibility to establish a project shall be discussed in the meeting. One of the options would be to create an **ERANET+** Project, which provides additional funding from Brussels in case that a number of national projects collaborate. This option shall be discussed besides other options eventually available.

2. Strategic Research Agenda

The layout and work distribution for the strategic research agenda shall be discussed. Some preparatory work will be done by VCE to stimulate this subject.

3. Membership

National representatives for some of the European countries have been identified. Strategies to extend the network all over Europe shall be discussed.

4. National Project

For a good representation information on national projects is required. How to collect it and how to administrate this information shall be discussed and decided.

5. Joint Technology Initiative

Considering the size of the problem and the financial impact at joint technology initiative (JTI) shall be created. An initial discussion on this subject will be held in the meeting.

6. Building Relations

EEPI will be only successful if proper relations can be established. How this can be done and who will be the players shall be discussed in the meeting.

7. Miscellaneous Items

Any other subject of discussion is welcome. EEPI will only be successful if it will be able to cover the whole sector.

Wenzel, April 2008



EEPI Topics

The following topics form the categories in which EEPI will trust to achieve the final objectives. This list is to be further developed and to be transferred into a roadmap. The roadmap will be updated annually by the core group of EEPI.

1. European strong motion network
2. European strong motion database
3. European network of instrumented buildings and structures
4. Network of large European testing facilities
5. Upgrade of the European earthquake testing facilities
6. IT network for super fast links and backbone for the virtual laboratory
7. Grand Challenge research work on European level
8. International collaboration with NEES, E-Defense and NCEE
9. Research to support the development of EC8
10. Construction related earthquake mitigation
11. Mitigation methodologies for low cost housing
12. Mitigation methodologies for major structures
13. Mitigation methodologies for the cultural heritage
14. Mitigation methodologies for the vital infrastructure
15. Strategies for civil protection
16. Regional strategies for important facilities like hospital and schools
17. Seismic hazard maps coordinated on European level
18. Vulnerability maps coordinated on European level
19. Transformation of technologies from European to regional level
20. Training and education programs for the communities and civil protection
21. Proper information for the population
22. Coordinated recommendations and guideline on European and national level
23. Benchmark tests with free access for everyone
24. Microzonation maps for every vulnerable region
25. A European GIS standard for data storage handling and distribution
26. Integrated GIS databases including the respective dynamic models
27. Harmonized building assessment methodology for all Europe
28. Harmonized special assessment methodologies for structures of importance
29. Development of vulnerability curves for everything
30. Methodologies for in-situ testing and assessment
31. Hierarchical concept for assessment
32. Harmonized European tectonic maps
33. Harmonized European geological maps
34. All in-information system
35. Unified European hazard assessment methodology
36. Risk assessment methodologies for critical plants and infrastructure
37. Unified probabilistic seismic hazard assessment methodology for Europe
38. Early warning
39. Energy Networks, Gas pipelines, electric transmission lines
40. Protection of Power Plants
41. Assessment for the Nuclear Industry
42. Seismic retrofit for the industry and buildings
43. Safety and Security issues
44. Mitigation the risk of foundation failure due to seismic soil liquefaction
45. Mitigation of earthquake risk to infrastructure due to earthquake induced landslides
46. Understanding earthquake risks to underground structures (tunnels, buried tanks, pipelines etc).
47. Development of fragility curves for everything, along with vulnerability
48. IAA tools to mitigate seismic&dynamic risk

MINUTES OF MEETING 004

Date: 29.04.2008
Place: RIVA Milano, Italy
Participants: refer to attached list
Subject: EEPI Development

1. Report of recent Activities

The list of representatives has been discussed. It is subject to national organization and maybe influenced by particular interest. It has been decided to open another category for core group members who have earned justification through working in the group. It has been reported that it is difficult to get the right information. The representatives are mainly there for political reasons to get things moving.

The planned EU meeting has been held in Brussels in December 2007 and January 2008. The results are provided in minutes of meeting No. 2 and 3. The initiative is appreciated and shall be further developed.

The formal issues of last meeting (Logo, etc.) have been settled and are available.

2. Ongoing Projects

It has been widely discussed that the activities are of a scale where voluntary work without any funding becomes difficult. There are several ongoing projects where some of the partners could cover the contribution. These are:

- SERIES (University of Patras, Fardis) mainly concerns the research infrastructure. It has been submitted the evaluation result is not yet known
- SHARE, the project of the seismologist led by Prof. Giardini from Switzerland
- The IRIS project can give some support on industrial safety (VCE)
- There are currently no news from the NEES World Forum

3. Options for Funding

The call 2009 is currently prepared in Brussels. It shall be launched in June 2008 (?). This call contains a joint earthquake subject in some of the programs. There are:

- An issue on infrastructure protection in the security call
- Earthquake engineering in the environment call
- Structural safety in the NMP call
- Issues of earthquakes in the capacities call
- Most likely there are also issues of earthquakes in ICT and transport

Another important option for funding would be the following calls in Brussels:

- ERANET Plus, where research projects on national level, which are coordinated with at least 5 countries are supported from Brussels with 1/3 of the call volume. This scheme has been discussed and found to be interesting but nevertheless very challenging because of the coordination of at least 5 national funding agencies. More information is required
- ERANET which has an open call in cooperation with submission date 12.8.2008. More information has to be found out
- COST is a subject where only travel is funded. Nevertheless it works easy and well

- EUREKA has been discussed and found that there is no opportunity for this in Italy

4. Lobbying

The approach towards a new proposal has been discussed. The focus shall be on minimizing the risk. There are strong players in the field which should not be competed. Nevertheless fresh ideas shall be collected and additional options tried out.

5. Strategic Research Agenda

It is still considered to be necessary. Nevertheless in a 1st step an introductory document shall be drafted first and the SRE with a road map next. Good and bad things in current practice shall be identified and a political message shall be sent from many countries to the European Parliament. CEA informed that during their workshop in July Mr. Herve Perot will come and can be addressed (3.7.2008). Furthermore a webpage shall be designed and introduced by VCE.

6. Decisions on the Approach

ERANET Plus is considered to be OK in Turkey, Romania, Austria and possibly Greece. There will be a problem definitely in Italy. After the meeting on 20th of May 2008 in Brussels a 2 page paper with all the requirements shall be distributed to the core group members for further enquiries on national level.

The same applies for ERANET. COST and EUREKA are currently not considered to be useful for the network.

7. National Projects

It has been decided to collect information on national projects and to compile a list.

8. Introductory Document

Walter Salvatore and Fabio Taucer volunteered to write this document. Atilla Ansal offered the help of the 32 National Associations of EAEE for distribution. It has been widely discussed whether the document shall now concentrate of earthquake engineering or cover the other areas like seismology and civil protection. It has been decided to start this engineering and later on enlarge it.

Issues to be included and brought forward have been progressive collapse of structures, loss assessment, standards for high-rise buildings (currently implemented in Turkey) and the NEHRP report 2008 – 2012 shall be consulted.

A draft document should be available by end of May 2008.

9. Activities

The following has been decided to be done:

- The draft document on introduction EEPI by end of May 2008
- Visit to Brussels on 20.5.2008
- Expected call 2009 in June (July) 2008
- Eventual meeting of the core group to organize proposals end of July
- Erection of a webpage as soon as possible
- Collection of national projects until end of May

10. Current Priority Research Issues

The following current priorities have been collected:

- In Austria, Switzerland and Germany the assessment of existing buildings are priority
- In France the work on vulnerability, soil structure interaction and site effects

- In Turkey field testing labs, testing of structures, gas pipelines, monitoring and the warning of high speed trains
- CEA also informed about a stop system for TGV trains in southern France
- In Italy assessment, strategic buildings, historical heritage, infrastructure systems, retrofit of schools are in national programs
- In Romania rehabilitation of buildings, check of buildings, transportation, earth sciences, nuclear power plants
- In Greece vulnerability of critical facilities, monitoring of bridges
- At Milano Politec vulnerability general, historical buildings, numerical models and seismology
- It was informed that in Istanbul currently there are boreholes driven every 250m
- The subject of site effects is considered to be done (?)

All participants agreed that there will be work necessary in order to achieve the goals.

Wenzel, Malpensa
29.04.2008

ACTIVITY REPORT OF EAEE-TG5 ON SEISMIC ISOLATION OF STRUCTURES IN THE PERIOD 2007-2008

In the biennium 2007-2008, as advanced by the TG5 coordinator in his 2002-2006 activity report, the Group activities were performed jointly with the Anti-Seismic Systems International Society (*ASSISi*). We remind that *ASSISi* was founded by the most active members of TG5 (together with experts of several non-European countries) in November 2002, as recommended at the “7th International Seminar on Seismic Isolation, Energy Dissipation and Active Control of Vibrations of Structures” (Assisi, Italy, October 2001), which had been co-organized by the Group.

ASSISi has now (August 2008) 74 individual founding members (53 active and 21 honorary), 55 individual ordinary members and 8 corporate members, representing 32 countries, in addition to the European Commission. The members of the countries associated to the EAEE form the TG5 membership. Their lists are reported in Appendix, together with their nationalities and their roles in the association.

The TG5 coordinator was the first president of *ASSISi*. As foreseen by the statutes of this association, he became past president at the beginning of June 2007, at the conclusion of the “*ASSISi* 10th World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures” (see below). According to this role, he will remain member of the *ASSISi* Executive Committee until 2011. In addition, he was appointed by the new president as treasurer and coordinator of the Territorial Section for the EU and non-EU Western European countries. The EAEE member Prof. Jacob Eisenberg (Russian Federation) was confirmed as Coordinator of the Territorial Section for the Russian Federation and non-EU Eastern European countries.

TG5 also actively collaborated with the Italian Association GLIS (“*GLIS – Isolamento ed altre Strategie di Progettazione Antisismica*”, namely “GLIS – Isolation and Other Anti-Seismic Design Strategies”), which was founded at the end of 2006 and replaced the former Italian “Working Group on Seismic Isolation” (“*Gruppo di Lavoro Isolamento Sismico*”), by keeping its acronym as short name, at the beginning of 1997. At present, GLIS has over 300 members and is still chaired by the TG5 coordinator. It is also still deeply collaborating with the “Italian National Association for Earthquake Engineering” (“*Associazione Nazionale Italiana di Ingegneria Sismica*” – ANIDIS), which is represented by its president in the GLIS Executive Committee (similarly, the GLIS president is member of the ANIDIS Board). Furthermore, GLIS replaced the former “Working Group on Seismic Isolation” as corporate member of *ASSISi* and coordinator of its Italian Territorial Section, founded in 2004. Members of this Section remain, in addition to GLIS itself, all the Italian GLIS members who are, at the same time, *ASSISi* members.

With regard to the organization of international conferences or participation in such conferences on behalf of the various associations, the following activities shall be cited.

- (1) Collaboration was provided to the organization of the “Fifth International Conference on Seismology and Earthquake Engineering (SEE5)”, which was held at Tehran (Iran) in May 2007 (the EAEE-TG5 Coordinator was member of the International Scientific Committee and invited speaker). Several *ASSISi* members participated in the seminar.
- (2) In May-June 2007, as already advanced in the 2002-2006 activity report of TG5, the “*ASSISi* 10th World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures” was held in Istanbul (Turkey). It was co-chaired by the *ASSISi* and EAEE member Prof. M. Erdik and the TG5 coordinator (as *ASSISi* President).
- (3) In June 2007 the TG5 coordinator participated, as invited speaker, in the “Sixth International Conference on Earthquake Resistant Engineering Structures (ERES 2007)”, held in Bologna

(Italy). Some further *ASSISi* members attended the seminar.

- (4) In October 2007 the TG5 coordinator participated, as invited speaker, in the “International Seminar on Development of Innovative Anti-Seismic Systems in the Framework of the LESSLOSS European Integrated Project”, held at Lisbon (Portugal). Some further *ASSISi* members attended the seminar.
- (5) In June 2008 the TG5 coordinator participated, as invited speaker, in the “NATO SfP Project Conference on Development of Low Cost Rubber Bearings for Seismic Safety of Structure in Macedonia and Balkan”, held at Ohrid (Macedonia), which was organized by the EAEE and *ASSISi* member Prof. M. Garevski. Some further *ASSISi* members attended the seminar.
- (6) In July 2008 collaboration was provided to the organization of the “2008 Seismic Engineering International Conference Commemorating the 1908 Messina and Reggio Calabria Earthquake” (MERCEA'08), held at Reggio Calabria (Italy), which was co-chaired by the *ASSISi* and GLIS member Prof. A. Santini. The TG5 coordinator was member of the International Scientific Committee, keynote lecturer and co-organizer, together with the GLIS honorary member and *ASSISi* vice-president Prof. Gianmario Benzoni of the University of California at Berkeley (USA), of the four special sessions on “Passive protection devices and seismic isolation”. Several further *ASSISi* and GLIS members attended the conference. Support was also provided for the organization of the international exhibition which was held in parallel to the conference; this exhibition was mainly attended by companies represented in GLIS and/or *ASSISi*.
- (7) At the end of August 2008, the TG5 coordinator will participate in the “International Disaster and Risk Conference 2008 (IDRC Davos 2008)”, to be held in Davos (Switzerland), as speaker invited by UNESCO in the special session on “Lessons learned from the Wenchuan earthquake: development and implementation of seismic building codes”.
- (8) In October 2008, the TG5 coordinator will participate, as co-moderator of the special session S05-02 and speaker in sessions S05-01 and S05-02, in the “14th World Conference on Earthquake Engineering (14WCEE)”, to be held in Beijing (P.R. China). Later, he will be lecturer at the Chinese University of Lanzhou, invited by the *ASSISi* member Prof. Y.F. Du.
- (9) In November 2008, the TG5 coordinator will participate in the “CIB/W114 (Earthquake Engineering and Buildings) meeting” in Nanjing (P.R. China).
- (10) Collaboration is being provided for the organization of the “International Technical-Scientific Seminar on Modern Systems for Mitigation of Seismic Action”, which will be held at Bucharest (Rumania) in October 2008. The Seminar is being organized by Prof. U. Sannino, who is *ASSISi* and GLIS member, and is sponsored by such associations. The TG5 coordinator is member of the International Technical-Scientific Committee and invited speaker.
- (11) Collaboration is being provided for the organization of the “Seventh International Conference on Earthquake Resistant Engineering Structures (ERES 2009)”, to be held in Cyprus in May 2009. The TG5 coordinator is member of the International Scientific Advisory Committee, invited speaker and organizer of the special sessions on passive control systems. According to the latter role, he invited some *ASSISi* members as speakers.
- (12) Collaboration is being provided for the organization of the “International Conference on Protection of Historical Buildings by Reversible Mixed Technologies (PROHITECH 2009)”, to be held in Rome (Italy) in June 2009. The TG5 coordinator is member of the Advisory Committee and organizer of the special sessions on “Passive control systems for protection of historical buildings”. According to the latter role, he invited several *ASSISi* and

GLIS members as speakers.

- (13) Finally, the “ASSISi 11th World Conference on Seismic Isolation, Energy Dissipation and Active Vibrations Control of Structures”, is being organized. It will be held at Guangzhou (P.R. China), in November 2009. The TG5 coordinator is conference co-chairman and member of International Coordination Committee and the International Scientific Committee.

According to the numerous important activities which have already been scheduled for the remaining part of 2008 and for 2009, the TG5 co-ordinator asks for an extension of the group activities.

Bologna, August 22, 2008



Alessandro Martelli
Coordinator, EAEE-TG5

Appendix: ASSISi members who belong to countries associated to EAEE

	(a) Founding Members	Country	Type	Role in ASSISi
1	Anagnostopoulos, Stavros A.	Greece	active	
2	Arato, Giordano-Bruno	Italy	active	
3	Azevedo, Joao	Portugal	active	
4	Begaliev, Ulugbek	Kyrgyz Republic	active	
5	Beliaev, Vyacheslav S.	Russian Federation	active	
6	Bisch, Philippe	France	honorary	
7	Bonacina, Giuseppe	Italy	active	
8	Dolce, Mauro	Italy	active	
9	Dorfmann, Luis	Austria	honorary	
10	Dusi, Alberto	Italy	active	Elected Executive Committee member Coordinator of the Territorial Section for the Russian Federation and non-EU Eastern European countries
11	Eisenberg, Jacob	Russian Federation	active	
12	Fischer, Ondrej	Czech Republic	honorary	
13	Fischinger, Matej	Slovenia	active	
14	Forni, Massimo	Italy	active	Executive Committee member as Secretary General
15	Fuller, Keith N. G.	UK	active	Executive Committee member as President
16	Garevski, Mihail	Macedonia	active	
17	Germani, Gaetano	Turkey	active	
18	Heyat, Nader	Turkey	honorary	
19	Makris, Nicos	Greece	honorary	
20	Manos, Gorge	Greece	active	
21	Martelli, Alessandro	Italy	active	Executive Committee member as past president and treasurer; coordinator of the Territorial Section the EU and non-EU Western European countries
22	Marti, Joaquin	Spain	active	
23	Medeot, Renzo	Italy	active	
24	Melkumyan, Mikayel	Armenia	active	
24	Molina, Javier	European Commission	active	
26	Ökten, Sadettin	Turkey	honorary	
27	Ormonbekov, Tynymbek	Kyrgyz Republic	honorary	
28	Panza, Giuliano F.	Italy	honorary	
29	Renda, Vito	European Commission	active	
30	Rutenberg, Victor	Israel	honorary	
31	Sanò, Tito	Italy	honorary	
32	Serva, Leonello	Italy	honorary	
33	Smirnov, Vladimir	Russian Federation	active	
34	Sollogoub, Pierre	France	active	
35	Tsirlis, Fotios N.	Greece	honorary	
36	Uranova, Svetlana	Kyrgyz Republic	honorary	
37	Vefkioglu, Umut K.	Turkey	honorary	
	(b) Individual Ordinary Members			
1	Bergamo Giulia	Italy	active	
2	Caliò Ivo	Italy	active	
3	Clemente Paolo	Italy	active	

4	Cretu Catalin-Adrian	Romania	active
5	De Canio, Gerardo	Italy	active
6	Dini, Gianpaolo	Italy	active
7	Erdik Mustafa	Turkey	active
8	Fuschi Paolo	Italy	active
9	Giuliani, Gian Carlo	Italy	active
10	Indirli, Maurizio	Italy	active
11	Komodromos Petros	Cyprus	active
12	Koren David	Slovenia	active
13	Lopez Almansa Francisco	Spain	active
14	Mancinelli Giuseppe	Italy	active
15	Marioni, Agostino	Italy	active
16	Mazza Fabio	Italy	active
17	Mezzi Marco	Italy	active
18	Mungan, Mehmet Ihsan	Turkey	active
19	Nunziata Concettina	Italy	active
20	Parducci Alberto	Italy	active
21	Phocas Marios	Cyprus	active
22	Pinchiaroglio Luigi	Italy	active
23	Pisano Aurora	Italy	active
24	Poggianti Alessandro	Italy	active
25	Pugliese Antonio	Italy	active
26	Rinaldis Dario	Italy	active
27	Rizzo, Silvana	Italy	active
28	Roussis Panayiotis	Cyprus	active
29	Sannino Umberto	Italy	active
30	Santini, Adolfo	Italy	active
31	Sorace Stefano	Italy	active
32	Torra, Vincenc	Spain	active
33	Turri, Massimiliano	Italy	active
34	Uzdin Alexander	Russian Federation	active
35	Vesa, Gianluca	Italy	active
35	Vulcano Alfonso	Italy	active

(c) Corporate Members

1	Elite Group	Armenia	active
2	EMME2	Italy	active
3	FIP Industriale	Italy	active
4	GERB	Germany	active
5	GLIS	Italy	active
6	Maurer Söhne	Germany	active
7	Retine Noruyt	Armenia	active
8	TASI (DID)	Turkey	active

Coordinator of the Italian Territorial
Section

21.8.2008

Professor Atilla Ansal
EAEE Secretary General
Bogazici University
Kandilli Observatory
Istanbul, Turkey 34688

Dear Atilla,

Thank you for your letter of 20.8 and the draft "Rules for the EAEE Task Groups" you enclosed. Some notes on TG8 activities follow.

I believe you know that we at TG8 organize the tri-annual European Workshops on Irregular and Complex Structures (EWICS). The 4th EWICS was held in Thessaloniki in September 2005, and the 5th EWICS will be held very shortly in Catania (September 15& 16). Professor Aurelio Ghersi, the Convenor tells me that, in addition to the CD Proceedings that is usually provided, a hard copy of the Proceedings is being printed to be available at the Workshop.

I believe that the venue of the next EWICS slated for 2011 will be on the agenda of the Catania Workshop.

In the proposed "Rules for the EAEE Task Groups" special theme sessions (STS) related to TGs activities are noted. Indeed, a special session on irregular & complex structures was held on September 5, 2006 at the 13th ECEE (1st ECEES) in Geneva, co-chaired by Professors Stavros Anagnostopoulos and Mario De Stefano. (As you may recall, I could not participate due to a medical problem).

The other main activity, also recommended in the draft "Rules", is presenting and publishing state of the art reviews on TG related activities. At the 13th ECEE Mario De Stefano presented: "EAEE Task Group (TG): Seismic behaviour of irregular and complex structures – progress since 2002. This paper is included in the CDROM Proceedings of the 1st ECEES. Most recently Mario De Stefano and Barbara Pintucchi published in the Bulletin of Earthquake Engineering (6, 2, 2008) an extensive review entitled: "A review of research on seismic behaviour of irregular building structures since 2002".

With best regards,

Victor

Cc: Prof. Mario De Stefano



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27/08/2008

To the attention of all members of the EAEE Ex. Committee

Subject:

Report of activities of EAEE TG11 Seismic Design, Assessment, and Retrofit of Bridges

The Task Group was launched in January 2007, following the approval by the EAEE ExCom of a proposal submitted in October 2006 by the Coordinator of the TG (Kappos); the approved proposal is included as Appendix A to this report, and addresses the background, the scope, and the foreseen activities to be pursued.

The current **membership** of the TG includes the following people:

Full members

1. Kappos, Andreas <ajkap@civil.auth.gr> (University of Thessaloniki, Greece), TG coordinator
2. Aydinoglu, Nuray <aydinogn@boun.edu.tr> (University of Bosphorus, Turkey)
3. Crewe, Adam <A.J.Crewe@bristol.ac.uk> (University of Bristol, UK)
4. Delgado, Pedro <pdelgado@fe.up.pt> (University of Porto, Portugal)
5. Dolce, Mauro <dolcerom@libero.it> (University of Basilicata, Italy)
6. Fischinger, Matej <mfischin@ikpir.fgg.uni-lj.si> (University of Ljubljana, Slovenia)
7. Flesch, Rainer <rainer.flesch@arsenal.ac.at> (Arsenal research, Austria)
8. Karakostas, Christos <christos@itsak.gr> (ITSAK, Greece)
9. Mylonakis, George <christos@itsak.gr> (University of Patras, Greece)
10. Nuti, Camillo <c.nuti@uniroma3.it> (University of Rome III, Italy)
11. Pantazopoulou, Stavroula <pantaz@civil.duth.gr> (University of Thrace, Greece)
12. Papadimitriou, Costas <costasp@mie.uth.gr> (University of Thessaly, Greece)
13. Pinho, Rui <rui.pinho@unipv.it> (EUCENTRE & Rose School, Italy)
14. Pinto, Artur <artur.pinto@jrc.it> (JRC, Ispra, Italy)
15. Saiidi, Mehdi (Saiid) <saiidi@unr.edu> (University of Nevada Reno, USA)
16. Uzdin, Alexander <uzdin@mail.ru> (University of Petersburg, Russia)

Corresponding members

1. Deodatis, George <deodatis@civil.columbia.edu> (Columbia University, USA)
2. Gazetas, George <gazetas@ath.forthnet.gr> (National Technical University, Greece)
3. Karamanos, Spyros <skara@mie.uth.gr> (University of Thessaly, Greece)
4. Pecker, Alain <alain.pecker@geodynamique.com> (Geodynamique et Structures, France)

5. Stojadinovic, Bozidar <boza@ce.berkeley.edu> (University of California, Berkeley, USA)

During the **reported period (Jan. 2007 – Aug. 2008)** the following activities were pursued by the Group:

1. Creation and maintenance of **website**: Since spring 2007 the TG website has been set up (<http://nisida.civil.auth.gr/tg11/>); to the Group's best knowledge this is the only TG website within the EAEE. Currently it includes the following main items:
 - a. Background, scope, and foreseen activities of TG11.
 - b. Details of TG members.
 - c. Details of TG activities (Meetings-workshops, TG documents, publications).
 - d. Bridge research documents (papers, reports), that can be downloaded directly from the site, and links to a number of research projects dealing with seismic aspects of bridges.
 - e. Bridge design and assessment documents (codes, guidelines, handbooks), that can be downloaded directly from the site.
 - f. Links to a number of websites closely related to the issues tackled by TG11.
 - g. A secured 'Members Area', wherein exchange of documents (at the draft stage) can take place, solely among the TG members.

The site is also accessible via a link on the Task Group page of the EAEE website (<http://www.eaee.boun.edu.tr/tgwg/TGS.HTM>)

2. **1st meeting – workshop**: The TG organised its first meeting in the form of a half-day workshop in Rethymno, Crete on 16-6-2007; the venue was kindly made available by the organisers of the COMPDYN Conference. The EAEE Secretary General was present at Workshop and spoke on recent activities of the Association. All scientific presentations made at the Workshop can be found on the TG11 website (<http://nisida.civil.auth.gr/tg11/Meetings.htm>). The agenda also included:
 - a. Discussion on TG activities on dissemination of research results through the TG web site and other means
 - b. Discussion on the compilation of state of the art reports on topics falling within the scope of the TG, and the production of design-oriented documents
 - c. Discussion on the organization of scientific meetings under the auspices of TG11 and the EAEE
 - d. Discussion on the timing and venue of the next meeting.

The *minutes* of the meeting can be found on the aforementioned webpage. The most important decisions taken were:

- a. The TG members will prepare a state-of-the-art document titled “**Inelastic methods for seismic design and assessment of bridges**”, including: modelling of bridges for inelastic analysis, presentation of available methods (pushover and time-history analysis methods), examples – case studies of application of specific methods and comparisons of alternative methods, and finally conclusions on the range of applicability of (pushover) methods and criteria for selecting appropriate

methods. Main drafters of the individual chapters of the document will be M. Saiidi, N. Aydinoglu, M. Fischinger, and A. Kappos, while several other TG members will contribute sections to the document.

- b. The TG will be actively involved in the preparation of special issues of the EAEE journal (BEE), dealing with topics falling within the scope of the Group; see item 3 regarding the first such issue.

The day before the TG workshop, a special session, titled “**Analysis and Assessment of Bridges Subjected to Seismic Actions**”, was organised within COMPDYN; most of the papers presented at the sp. session were authored by TG members and their groups.

3. Preparation of the **special issue of the BEE** “Earthquake Protection of Bridges” (Guest Editor: A. J. Kappos): This forthcoming issue will include the following 11 papers, most of them contributed by TG members and their co-workers:
 - a. Modeling the seismic response of integral bridges by consideration of embankment participation - Performance-based earthquake design.
 - b. Effect of torsional stiffness of prestressed concrete box girders and uplift of abutment bearings on seismic performance of bridges.
 - c. Experimental & analytical study of seismic isolation of bridges with or without supplemental energy dissipation - Design recommendations.
 - d. Shear effects on hollow piers under seismic actions. Experimental and numerical analysis.
 - e. Direct Displacement-Based Design of Seismically Isolated Bridges.
 - f. Experimental and analytical modelling of monolithic joints in concrete bridges.
 - g. Seismic fragility curves for greek bridges - Methodology and case studies.
 - h. Bridge Health Monitoring System Based on Vibration Measurements.
 - i. Structural Identification of Egnatia Odos Bridges Based on Ambient and Earthquake Induced Vibrations.
 - j. System vs. Component Bent Response of a Two-Span Bridge System.
 - k. Evaluation of the new Eurocode 8 - Part 2 provisions regarding multiple support excitation of bridges.

Finally, the next meeting of TG11 will take place in Beijing, China, during the 14WCEE.



Andreas Kappos

Coordinator of TG11

Appendix A

Approved Proposal for a new EAEE Task group:

TG11: Seismic Design, Assessment, and Retrofit of Bridges

The idea for setting up a new EAEE task group dealing with seismic aspects of bridge design, assessment, and retrofit, originated following the success of the special session on this topic organised by A. Kappos (Greece), with K. Kawashima (Japan) as co-convenor, at the 13th ECEE in Geneva (Sep. 2006). This session brought together researchers from all over the world working in the important international group *fib* TG7.4 (Seismic design and assessment procedures for Bridges) and the ongoing programme ASProGe (Seismic Protection of Bridges) in Greece, along with other groups such as the American one working on Caltrans bridges. The idea of the new group was welcomed by both the newly elected Ex. Committee of the Association and by the people that attended the special session and the conference.

The choice of the TG title is quite topical, since bridges that are the most critical (from the seismic point of view) component of transport systems, are not covered by existing EAEE task groups. It is noted that within the European Union, the motorway network expanded from 39200 km in 1990 to 49200 km in 1999, and the figure keeps increasing at a fast rate. As an example, in Greece the most significant expenditure on road infrastructure is conducted through the Trans-European Network, which accounted for €13.6 billion; a large number of bridges have been constructed in Greece during the last decade, the majority of which was along the 680 km Egnatia Motorway that includes 646 bridges. Meanwhile, assessment of seismic performance of existing bridges, some of which clearly fail to satisfy the requirements of modern codes, has been the focus of substantial research efforts worldwide, particularly during the last few years. As a result of such concerns, programmes for retrofitting seismically deficient bridges have originated in several European countries, notably in Italy, and similar efforts are underway in the US and Japan.

Topics to be covered by the new group include:

- Performance-based design of bridges (concrete and steel bridges).
- Calibration of code procedures for seismic design of bridges - Comparative assessment of European (Eurocode 8 - Part 2) and international (US, Japan, other) standards and design practice for bridges; calibration studies might be analytically and/or experimentally oriented.
- Improved analytical procedures for assessment of seismic performance of bridges, with emphasis on pushover methods accounting for higher mode effects.
- Fragility curves for bridges (methodologies and case studies).
- Application of passive systems (seismic isolation and energy dissipation devices) to existing bridges – development and application of new technologies.
- Seismic retrofit of bridge columns and foundations – Innovative retrofit methods.
- Analytical and experimental investigation of critical bridge components (with a view to improved design or effective retrofit).
- Instrumentation of bridges and structural health monitoring (with emphasis on seismic aspects); assessment of bridges based on instrumentation data.
- Displacement-based and performance-based assessment methods; deterministic and probabilistic approaches.
- Improved procedures for the optimal selection of earthquake loading (also including the effects of spatial variation of ground motion), and analysis of soil - structure interaction effects.

The **membership** of the new TG is mainly drawn from the European academic and professional groups active in the field, but some distinguished researchers from other countries (not members of the EAEE) are also included either as full members (if they can attend meetings in Europe) or as corresponding members. The membership of the TG has a strong international flavour as (practically) all European countries active in research on seismic assessment, design, and retrofit of bridges are represented, along with some leading academics from the US (with strong links with Europe).

In addition to meetings, the foreseen **activities** of the TG are (in a non-exclusive way):

- Dissemination of the research results produced by the TG members among them, as well as among the engineering community at large (a key point in this respect would be the launching of a **web site** with ability to upload and download material from it)
- Organization (every 2-3 years) of a **workshop** bearing essentially the same title as the TG, with oral presentations, round table discussions and other similar activities; CD ROM proceedings of the workshops will be available at their beginning
- Compilation of **state of the art reports** on topics falling within the scope of the TG, preferably in the form of special issues of the Bulletin of Earthquake Engineering (the official EAEE journal). Production of **design-oriented documents** (such as comparison of bridges designed to different code procedures) is also envisaged.

Promotion of closer relationships and strong international outreach to US programmes on bridges such as that at the PEER Centre and the emerging US-Japan programme on bridge research.