

ACTIVITY REPORT OF TASK GROUP 5 ON “SEISMIC ISOLATION OF STRUCTURES” FOR THE YEARS 2001-2002

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1. General Remarks

TG5 began its activities in 2001, when the author of this report was appointed as its coordinator. Until October 2001 such activities mainly concerned the organization (jointly with the Italian Working Group on Seismic Isolation – GLIS – of the Italian National Association for Earthquake Engineering – ANIDIS) of the “7th International Seminar on Seismic Isolation, Passive Energy Dissipation and Active Control of Vibrations of Structures”, which was held at Assisi (Italy) on October 2-5, 2001, and technical-scientific support to the organization of the “5th World Congress on Joints, Bearings and Seismic Systems for Concrete Structures”, which was held in Rome (Italy) on October 7-11, 2001.

After the conclusion of the Assisi Seminar and Rome Congress, TG5 activities also concerned:

- Publication of the Proceedings of the aforesaid Seminar (which were distributed in July 2002) and of a volume collecting English translations of the design rules and guidelines applicable in the various countries to structures provided with innovative anti-seismic (IAS) systems, collected during and after the Assisi Seminar (which will be soon published by the Italian Seismic Survey – SSN – in cooperation with GLIS and TG5);
- Technical-scientific support to the organization of the “3rd World Congress on Structural Control”, which was held in Como (Italy) on April 7-12, 2002;
- Foundation of the “Anti-Seismic Systems International Society” (*ASSISi*), which was decided at the Assisi Seminar;
- Beginning of the work for the co-organization of the event which will follow that held at Assisi, namely of the “8th World Seminar on Seismic Isolation, Energy Dissipation and Active Vibration Control of Structures”, which will take place at Yerevan, Armenia, in October 2003.

2. Remarks on the Assisi Seminar

Similar to the two previous events held in Italy (Capri in 1993 and Taormina in 1997), the Assisi Seminar was organized by GLIS (see its homepage <http://192.107.65.2/glis>), with the cooperation of ENEA (Italian Agency for New Technology, Energy and the Environment), ANPA (Italian National Agency for the Protection of the Environment) and several further Italian, foreign and international Institutions, associations and companies. TG5 joined GLIS as main organizer of this Seminar. Represented in its International Coordination and Technical-Scientific Committees were altogether 23 countries, 2 international Institutions, as well as 3 international, 1 US and 2 national associations.

The Seminar was held under the auspices of the European Commission (EC). Sponsorship or financial contributions were provided by 17 Institutions or companies from 4 countries. Patronage was also provided by the Italian Ministry for the Environment, the Holy Monastery of St. Francis and 5 further Regional and Local Institutions of Umbria and Emilia-Romagna.

Similar to the previous events, the Seminar consisted in Oral Sessions (where only invited lectures were presented) and, in parallel, a Poster Session and an International Exhibition. In addition, English translations of the design rules on the IAS systems applicable in various were collected and a feature film, with pictures taken from the motion-picture “The Shape of Memory”, shot and mounted in the framework of the MUSICA (Multimedia for the Development of Innovative Systems for Anti-Seismic Constructions) Project of ENEA and GLIS, was shown. The Seminar was closed by a Panel. It was preceded and followed by technical visits to the Basilica of St. Francis at Assisi and isolated buildings being erected at Città di Castello. Finally, meetings of the European Committee for Standardization dealing with the IAS systems (CEN TC 340) and European consortia involved in EC-funded Projects (SPACE, SAMCO and two new proposals) took place in

conjunction with the Seminar.

In spite of the tragic events of September 11, 2001, the Seminar was attended by 237 experts from 25 countries, 2 international Institutions and 1 European association and was quite successful. This allowed for fully achieving its purposes of assessing the state-of-the-art on the development and application of the IAS techniques, strengthening and even extending international collaborations and disseminating information to designers, public officials and public opinion.

3. Remarks on the organization of the Yerevan Seminar

Due to the great success of the Assisi Seminar, in its Closing Panel there was a general consensus of opinion that the Seminar shall go on in the future. Based on the proposals received at Assisi, the 8th event will take place in Yerevan (Armenia) on October 6-10, 2003 and will be chaired by Prof. Mikayel Melkumyan (American University of Armenia – AUA), chairman of the Armenian Association for Earthquake Engineering, while the 9th event will be held in Japan in 2005. The 8th and following Seminars will be official events of *ASSISi*. It was also confirmed that the Seminar will go on keeping the same main features as those of the events held at Assisi and previously and that in the Yerevan event, the "8th World Seminar on Seismic Isolation, Energy Dissipation and Active Vibration Control of Structures", particular attention will be devoted in the Oral Sessions to:

- design rules, taking advantage of the contributions on design rules and guidelines which have already been collected for the Assisi Seminar;
- seismic input, through the aforesaid special session, where joint recommendations of renowned seismologists will be addressed to the engineers using the IAS techniques (especially seismic isolation);
- economic and financial aspects;
- development of new IAS systems, in particular semi-active systems;
- specific still open issues related to each kind of structure (bridges and viaducts; strategic and public buildings; ordinary apartment buildings; nuclear plant and high risk plants in general; other plants; cultural heritage);
- new applications of the IAS techniques, especially concerning the construction and retrofit of ordinary apartment buildings, high risk chemical and other plants and cultural heritage;
- issues of particular interest for Armenia, other former USSR republics and developing countries in general;
- information on the IAS techniques to designers, public officials and the ordinary public.

The International Coordination Committee, the International Technical and Scientific Committee and the National Committee have already been assessed by Prof. Melkumyan, with the collaboration of the author of this report as both Chairman of the *ASSISi* Foundation Committee and EAEE-TG5 Coordinator. The First Announcement of the Seminar was widely distributed in July 2002 and is being installed in Internet at AUA homepage (<http://www.aua.am>).

4. Remarks on the Foundation of ASSISi

To enhance international cooperation on the IAS techniques, the foundation of an international society on the IAS techniques, which had been recommended at the 6th Seminar of Cheju in 1999, was confirmed in the Assisi Closing Panel. The actions to be undertaken to enable such a foundation were agreed in a specific meeting held on October 6, 2001. This was attended by 14 experts representing 9 countries, who were the first founding members. These numbers increased later to 54 members from 25 countries or international Institutions (including, as far as Europe is concerned, Austria, Czech Republic, the EC, France, Greece, Italy, Macedonia, Russia, Spain, Turkey and the UK).

It was decided to call the association "Anti-Seismic Systems International Society", with the acronym *ASSISi*. This acronym was selected as it symbolizes Assisi, the city where the decision was made to found the association. As Assisi is internationally known as the city of Saint Francis, it carries a meaning of "Peace and International Cooperation". Having *ASSISi* as the acronym for the association, it reaffirms the willingness of the founders to take a clear symbolic position against the terrorism and their concerted activities to build a better and safer world through international cooperation and collaborations. *ASSISi* will strongly cooperate with EAEE-TG5.

The By-Laws of *ASSISi* were drafted and the text prepared was approved by the Founding Members with minor changes. The final text will be distributed by September 6, 2002. The official foundation of *ASSISi* has been scheduled to occur in Italy within October 2002.