Memorandum of Understanding for Earthquake Hazards Reduction Between

International Institute of Earthquake Engineering and Seismology (IIEES), Iran

and

Higher Institute of Earthquake Studies and Research (HIESR) of Damascus University, Syria

Referring to the "Cooperation Agreement in Scientific Research and Technical Development in Higher Education" between the Government of the Syrian Arab Republic and the Islamic Republic of Iran, signed on 27 December 2006,

And after bilateral talks held at the first official meeting of the Syrian-Iranian Joint Committee for Scientific Research and Technological Development during 26-30 May, 2008, both parties propose the following areas of collaboration between International Institute of Earthquake Engineering and Seismology (IIEES), Iran, and Higher Institute of Earthquake Studies and Research (HIESR) of Damascus University, Syria:

## **ARTICLE 1: FIELDS OF COOPERATION:**

Both sides wish to organize the mutual cooperation according to the following basic rods :

- 1) IIEES is ready to:
  - a)- help in designing MSc programs in earthquake engineering and seismology for Damascus university.
  - b)- joint supervise PHD student from Damascus university.
  - c)- hold specialized educational short-term courses on earthquake engineering and seismology in Syria for MSc students and professional Engineers. The topic and the content of these courses will be finalized upon the request of the Syrian side. Some of these courses are:
    - "Seismology and Seismic Hazard".
    - "Disaster Risk Management".
    - "Advanced Soil Analysis".
    - "Geotechnical Earthquake Engineering".
    - "Advanced Seismic Exploration".

- "A Scientific Approach to Earthquake Prediction : Advantages and Pitfalls".

- "Seismic Rehabilitation and Strengthening of Existing

Buildings and Structures.

2) IIEES is ready to offer PHD places in earthquake engineering fields for Syrian students. The number of places will be subject to the agreement of both sides. Syrian student's acceptance at different university levels is done in

the framework of the MOU between the two countries with the agreement of "Scholarship Council of Foreign Students".

3) Both sides agree on initiating joint projects in the following fields:

- Conducting Earthquake Risk Reduction Programs in Syria.

 Carrying out mutual researches for the assessment of the possible damages in designated places as a result of the expected earthquakes in both countries which may involve all kinds of constructions (building, bridges, roads, dams, etc) found in the area of the study and draw approximate maps in this regards.

- Evaluating and retrofitting of historical buildings.

- Strengthening and improving seismic safety of existing structures with emphasis on important structures, info structure and lifeline.
- Developing the seismic design features of the buildings and constructions by the experts in these fields in both countries.
- Developing a map illustrating areas of possible seismic risks in both countries according to the seismic resistant standards.
- IIEES will help in developing earthquake engineering laboratories
  of Damascus University through offering some possible facilities
  and knowhow transfer so that Syrian personnel will be more
  qualified to carry out experiments on structural components and
  models under earthquake loads.
- Development and implementation of public education initiatives related to earthquake occurrence.

## **ARTICLE 2: VISITS**

Both sides wish to exchange visits of experts with the aim of knowing about the scientific achievements and the ongoing activities in each side in addition to detailing the proposed scientific research projects and selecting the research areas.

These visits will be organized through formal correspondence.

- Each side undertakes to cover travel expenses of its delegates (return tickets)
- The hosting side covers accommodation and local travel expenses

Ways of covering costs of invitations to participate in university activities are to be agreed upon by formal correspondence .

## **ARTICLE 3: SCIENTIFIC PUBLICATIONS**

- The two sides will exchange literature ,publications and periodicals issued by each of them .
- The two sides will encourage the publishing of research and scientific articles issued by either side in periodicals and scientific reviews published by other one.
- The two sides exchange information and scientific references on different subjects of earthquake engineering and seismology of common interest with the aim of establishing a data bank

## **ARTICAE 4: RECOGNITION AND VALIDATION:**

- This agreement will last for four years to be renewed automatically unless one of the two sides expressed a wish to cancel it through a formal request submitted in writing with at least six months notice.
- New articles can be added-upon the consent of the sides to the present agreement while it is still valid.
- This agreement is enforced as from the date of its signing by both sides.

Damascus 29/05/2008

Dean Of HIESR

Prof. Mohammed Al-Samara

Approved by

Prof. Dr. Wael Mualla

Approved by Prof. Dr. Alireza Jahangirian

**President Of IIEES** 

Prof. Abbas Ali Tasnimi

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