• ROSE FACULTY

Aiming at a unique diversity of teaching and research training in the field of Earthquake Engineering, the organisation of the ROSE School is based on a relatively short permanence of scholars with extremely high qualification. Indeed, all lecturers at the School are internationally recognised experts in the field, coming from a number of distinguished institutions, listed below:

G.M. Calvi	ROSE School, Co-Director
M.J.N. Priestley	ROSE School, Co-Director
N. Abrahamson	Pacific Gas & Electric Co., USA
D.P. Abrams	University of Illinois at Urbana-Champaign, USA
D.L. Anderson	University of British Columbia, Canada
F. Auricchio	Università degli Studi di Pavia, Italy
J. Berrill	University of Canterbury, Christchurch, NZ
J.J. Bommer	Imperial College London, UK
D.M. Boore	U.S. Geological Survey, California, USA
F. Brezzi	Università degli Studi di Pavia, Italy
A. Carr	University of Canterbury, Christchurch, NZ
M.P. Collins	University of Toronto, Canada
J. Conte	University of California at San Diego, USA
A. Dazio	ETH, Zurich
A. Der Kiureghian	University of California at Berkeley, USA
R. DesRoches	Georgia Institute of Technology, Georgia, USA
A. Elghazouli	Imperial College London, UK
A. Elnashai	University of Illinois at Urbana-Champaign,USA
R.E. Englekirk	Englekirk Companies, USA
M. Erdik	Bogazici University, Turkey
E. Faccioli	Politecnico di Milano, Italy
M.N. Fardis	University of Patras, Greece
G.L. Fenves	University of California at Berkeley, USA
A. Filiatrault	University of New York at Buffalo, USA
L. Gambarotta	Università degli Studi di Genova, Italy
M.C. Griffith	University of Adelaide, Australia
T.J.R. Hughes	University of Texas at Austin, USA
E. Kausel	MIT, Cambridge, USA
K. Kawashima	Tokyo Institute of Technology, Japan
M.J. Kowalsky	North Carolina State University, USA
S. Kramer	University of Washington, USA
C.G. Lai	EUCENTRE, Pavia, Italy
R. Leon	Georgia Institute of Technology, Georgia, USA
G. Magenes	Università degli Studi di Pavia, Italy
G. Mancini	Politecnico di Torino, Italy
G. Martin	University of Southern California, USA
E. Miranda	Stanford University, USA
G. Monti	Università di Roma "La Sapienza", Italy
M. Nakashima	University of Kyoto, Japan
T.D. O'Rourke	Cornell University, USA
S. Otani	Chiba University, Japan
S. Pampanin	University of Canterbury, Christchurch, NZ
V. Pane	Università degli Studi di Perugia, Italy
R. Paolucci	Politecnico di Milano, Italy
A.S. Papageorgiou	University of Patras, Greece
A. Pavese	Università degli Studi di Pavia, Italy
A. Pecker	Ecole Nationale des Ponts et Chaussees, France
M. Pender	University of Auckland, New Zealand
R. Pinho	Università degli Studi di Pavia, Italy
P.E. Pinto	Università di Roma "La Sapienza", Italy
J.H. Prevost	Princeton University, USA
J. Restrepo	University of California at San Diego, USA
G. Rix	Georgia Institute of Technology, Georgia, USA
F. Sabetta	Servizio Sismico Nazionale, Roma, Italy
J. Salençon	Ecoles Polytechnique, Paris, France
F. Seible	University of California at San Diego, USA
D. Slejko	INOGS, Trieste, Italy
G. Solari	Università degli Studi di Genova, Italy
E. Spacone	Università degli Studi di Chieti, Italy
J. Stanton	University of Washington, USA
J.P. Stewart	Università of California at Los Angeles, USA
H. Sucuoglu	Middle East Technical University, Turkey
T. Triantafillou	University of Patras, Greece
D. Veneziano	MIT, Cambridge, USA

The IUSS-Pavia is the last step of a long lasting higher education process started on 825 when King Lotharius appointed Pavia, the ancient capital of the Lombard kingdom, as the site for higher education of his kingdom. This process went through the foundation in 1361 by Emperor Charles IV of the Studium Generale later on named University of Pavia. The first Colleges for university students were established in the 15th and 16th centuries. They are now 15 offering, to the almost 2.000 students, a unique opportunity of study and cultural enrichment in a multidisciplinary and multiethnic environment. Through centuries the University of Pavia became one of the leading institutions in Europe.

IUSS fulfils, since 1997, an advanced teaching and research model successfully implemented by other prestigious institutions in Italy, like the Scuola Normale Superiore and the Scuola Sant'Anna in Pisa. Due to the completeness of its education and training fields, which allows a strong interdisciplinary approach, the mission of IUSS is that of contributing to the growth of a small number of selected students by offering them, at any step of their higher education, qualified programs enhancing their capabilities and knowledge. The Institute is also committed to scientific progress by preparing young researchers and developing scientific research programs.

ROSE SCHOOL

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Education and Culture

Erasmus Mundus

The European Commission has approved and financed an Erasmus Mundus Masters on Earthquake Engineering and Engineering Seismology (MEEES), coordinated by the ROSE School and featuring also the participation of the University of Grenoble Joseph Fourier (France) and the University of Patras (Greece) as project partners, as well as of Imperial College London (UK), Joint Research Centre (Ispra, Italy) and the Italian Institute for Geophysics and Vulcanology (Italy) as satellite participants. Within the framework of this prestigious Erasmus Mundus programme, which aims to enhance quality in European higher education and to promote intercultural understanding through co-operation with third countries, a relatively large number of scholarships are available for both non-European as well as European students. Interested applicants are invited to visit the MEEES website (www.meees.org) for detailed information and instructions on financial conditions and application procedures.

Università degli Studi
di Pavia

Istituto Universitario
di Studi Superiori di Pavia

The Seventh International ROSE School Seminar

Aula Foscolo, University of Pavia, Italy
24–25 May 2007

ROSE SCHOOL

European School
for Advanced Studies
in Reduction
of Seismic Risk

• THE ROSE SCHOOL

The European School for Advanced Studies in Reduction of Seismic Risk (ROSE School) is part of the Institute for Advanced Study of Pavia (IUSS: Istituto Universitario di Studi Superiori), a higher education institution in Italy that offers international advanced postgraduate programs (Masters and Doctorate). Innovative, internationally planned, open minded, grown on the traditionally fertile soil of the University of Pavia, and based on a system of Colleges unique in Italy, the IUSS prepares brilliant individuals to take on the most challenging and demanding public and private posts in contemporary Italy, Europe, the Mediterranean area and the rest of the world.

The ROSE School provides therefore higher-level education in the field of earthquake engineering, offering a number of courses covering applied mechanics, structural engineering, earthquake engineering, engineering seismology and soil dynamics, with emphasis on both theoretical background and design considerations. The MSc and PhD degrees are jointly awarded by the IUSS and the University of Pavia.

Each course is intensively taught in a period of three to five weeks, during which the respective lecturer is able to fully dedicate his/her time and efforts exclusively to the scholastic activities at the school, thus ensuring teaching and research training at the highest possible levels of quality. All of the above endows a truly unique character to the ROSE School, be it for its fully international nature or for its innovative organisation in education and research training in the field of Earthquake Engineering.

• INTERNATIONAL ROSE SCHOOL SEMINARS

As a part of the ROSE program, an International seminar is organised every year, to provide the School students with an opportunity to present and discuss their research work to an audience of international experts.

In addition to standard presentations on research work carried out at the School, the annual Seminars feature also the tradition of inviting a prominent scientist to deliver a keynote lecture on a given contemporary and highly relevant topic in the field of Earthquake Engineering. At this year's event, such keynote address will be delivered by Professor Robin Spence, with the title "Saving Lives in Earthquakes: Success and Failures of Seismic Protection Since 1960".

It is also foreseen that contributions to the seminar will be published, after a standard review process, in a special issue of the *Journal of Earthquake Engineering*, which will be distributed to all participants and journal subscribers in mid 2008. Copies of the JEE Special Issues containing the proceedings of previous editions of this annual Seminar are available from the ROSE School Secretariat, on request.

• ATTENDING THE EVENT

As in its previous editions, a large number of the ROSE Faculty members, listed overleaf, will be attending the Seminar, ensuring a lively and entertaining workshop. Further, it is noted that relatively extended times are allocated for the presentation of each paper, so that in-depth and highly technical discussions can take place.

In addition to ROSE faculty and students, a maximum of 50 external participants may also be accepted, for which reason professionals and researchers worldwide are encouraged to take part in the event. A 160 fee is required from external attendees, to cover for the cost of coffee/lunch breaks, seminar dinner and proceedings. Special financial conditions are, however, in place for University researchers or students, to whom a fee of not more than 120 is usually requested.

Those who wish to attend the Seminar are kindly invited to compile and submit the registration form to the ROSE School Secretariat, at the address given overleaf. If you need assistance of any kind (registration form, accommodation, travelling directions, etc.), please do not hesitate in contacting our Administrative Officer, Mr. Saverio Bisoni (secretariat@roseschool.it). You may also refer to the ROSE website for further information on all ROSE School activities.

• VENUE

The ROSE School is located at the European Centre for Training and Research in Earthquake Engineering (EUCENTRE, www.eucentre.it), in Pavia, a historical town in the North of Italy (35 km from Milan), full of University tradition and fame. The ROSE School Board Meeting on Thursday 24th May will take place at the EUCENTRE.

The Seminar itself will take place at the Aula Foscolo of the Universitità degli Studi di Pavia (www.unipv.it). It is located in Corso Strada Nuova 65

• PRE-SEMINAR ACTIVITIES

LESSLOSS is a European Integrated Project focusing on Risk Mitigation for Earthquakes and Landslides that relies on the active participation of 46 European partners from both academia and industry (www.lessloss.org). The research/innovation effort within the LESSLOSS project is comprised of a number of different research components, or Sub-Projects. On Wednesday 23rd May the LESSLOSS workshop for Sub-Project 9 "Probabilistic risk assessment: methods and applications" will take place at the EUCENTRE. The programme of this workshop is reported in the enclosed leaflet.

• PROGRAMME OF THE SEMINAR

Thursday, 24th May

10.00 – 13.00	ROSE School Board Meeting (at EUCENTRE)
13.00 – 14.30	Welcome lunch and registration
14.30 – 16.00	Session 1 - Chairman: J.J. Bommer *Mapping seismic landslide hazard in low seismicity regions* V. Kumar Dhaka[1], C. Strobbia, A. Dall'Ara, C.G. Lai *Effects of seismic intensity soil dynamics amplification evaluated through numerical models* M. Asinari[1], M.E. Ruiz, C.A. Prato *Numerical simulation of tsunami in the Indian Ocean* R. Appuhamy[1], S. Tinti, C.G. Lai *Increased accuracy of vector-IM-based seismic risk assessment* R. Pathanathan[2], P. Franchin, P.E. Pinto
16.00 – 16.30	Coffee break
16.30 – 17.30	Session 2 - Chairman: G.M. Calvi *Design procedures and numerical analysis of laminated veneer lumber lateral resisting systems* M.P. Newcombe[1], S. Pampanin, A. Buchanan, A. Palermo *Seismic performance of AAC masonry buildings: From experimental testing of the lateral capacity of piers to building response simulation* A.A. Costa[1], A. Penna, G. Magenes *Definition of seismic input for acceleration-sensitive and displacement-sensitive structural and nonstructural components of a building* A. Menon[2], G. Magenes
20.30 – 23:30	ROSE Seminar Dinner

Friday, 25th May

9.30 – 10.30	Session 3 - Chairman: G. Magenes *Assessment of the impact of seismic retrofit on1920-1940 blocks of flats with reinforced concrete structure* M. Bostenaru Dan[3], R. Pinho *Determination of appropriate SDOF characteristics of 3D dual systems for displacement-based loss assessment studies* E. Vuran[1], I.E. Bal, H. Crowley, R. Pinho *Seismic rocking isolation effect on superficial foundations of bridges* D. Baffo[1], K. Kawashima
10.30 – 11.00	Coffee Break
11.00 – 12.30	Session 4 - Chairman: A. Pavese *Italian code and Eurocode 8: A critical review of RC existing building assessment methodologies* V. Mpampatsikos[2], L. Petrini, R. Nascimbene *Real vs. artificial accelerograms for time-history analysis: Comparison based on the seismic response of EC8-designed RC frame buildings* J. Rivera[2], C.G. Lai, L. Petrini *Cyclic behaviour of RC U-shaped walls: An analytical and experimental investigation* K. Beyer[2], A. Dazio, M.J.N. Priestley *Effects of damping modelling on the non-linear time-history results of RC structures* G.M. Calvi, C. Maggi, L. Petrini, M.J.N. Priestley
12.30 – 14.00	Lunch break
14.00 – 15.30	Keynote lecture – R. Spence *Saving Lives in Earthquakes: Success and Failures of Seismic Protection Since 1960*
15.30 – 15.45	Book Release – M.J.N. Priestley *Displacement-Based Seismic Design of Structures*
15.45 – 17.00	Graduation ceremony Programme of future activities Closing speeches

[1]MSc Student, [2]PhD Student, [3]Marie Curie Fellow