MISSION of NHMSE

The occurrence of an increasing number of natural hazards all over the world and their various effects on individuals, societies and modern economies is one of the major challenges for future decades. The master course in "Natural Hazards Mitigation in Structural Engineering" at Bauhaus University Weimar faces this challenge by providing indispensable tools for taking into account those phenomena in the different design processes in civil engineering.

Thereby, the master course aims at combining practical structural engineering with state of the art concepts regarding computational mechanics, dynamics and probability theory/stochastic analysis. Consequently, the master course provides key qualifications for innovative work in the field of earthquake, flood and wind engineering and offers an international setting in which students will achieve both technical success and personal advancement.

Main areas covered by the master course in "Natural Hazards Mitigation in Structural Engineering" are earthquake engineering, soil dynamics, structural dynamics, computer methods in non-linear structural engineering, safety and risk assessment, as well as constitutive modelling of materials under cyclic and dynamic loads. The course program covers, thereby, both theoretical and application orientated topics.
Since 2007 the German Academic Exchange Service (DAAD) grants up to 7 scholarships within the program "Postgraduate Courses for Professionals with Relevance to Developing Countries".

PROGRAM COMMITTEE

Prof. Jürgen Ruth, Institute of Structural Engineering
Prof. Tom Schanz, Laboratory of Soil mechanics
Dr. Jochen Schwarz, Earthquake Engineering

PARTICIPANTS

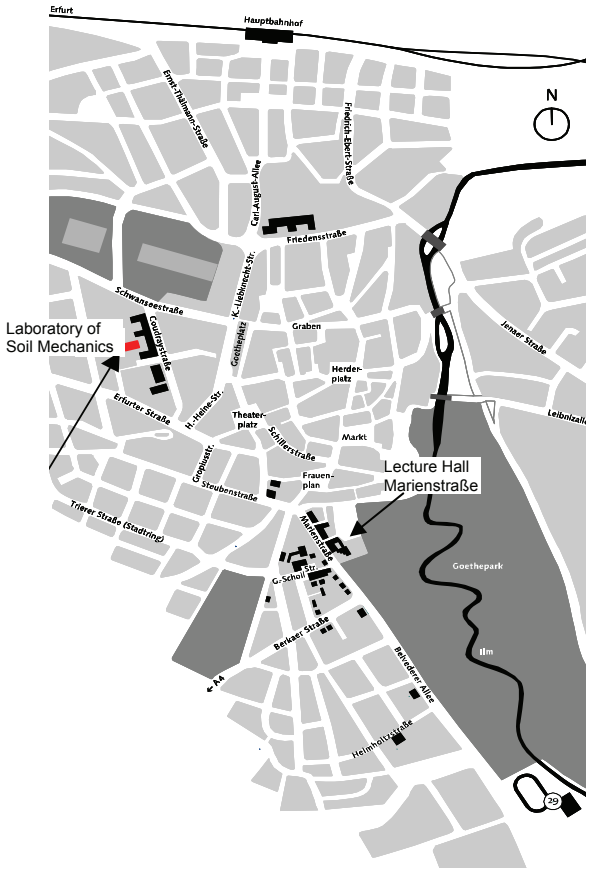
Participating in these lectures is compulsory for students of NHMSE MSc.-program. We additionally welcome members of all faculties of the university and our external colleagues.

VENUE

Bauhaus-Universität Weimar, Coudraystrasse 9a,
99421 Weimar, Lecture Hall 6.

Organisation

Wiebke Baille
Bauhaus Universität Weimar
Laboratory of Soil Mechanics
Coudraystrasse 11c
Weimar D 99421, Germany
Tel: +49(0)3643 58 4396, gsse@uni-weimar.de



Bauhaus-Universität Weimar

Invited Lectures in the frame of
International MSc.-Program

NATURAL HAZARDS MITIGATION IN STRUCTURAL ENGINEERING

Winter term 2007/2008

Bauhaus-Universität Weimar

Faculty of Civil Engineering

DAAD Deutscher Akademischer Austausch Dienst
German Academic Exchange Service

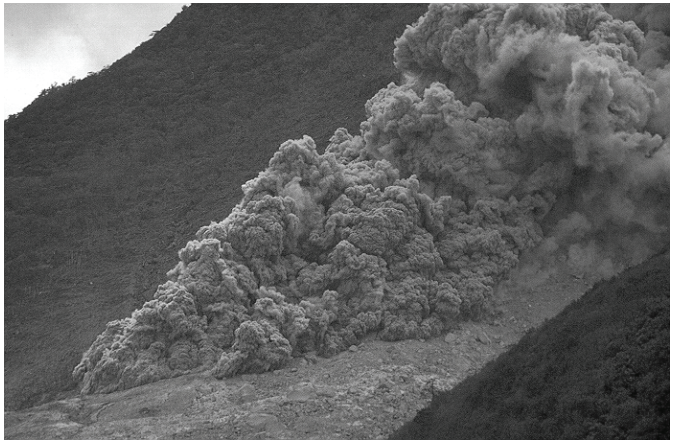
WELCOME

With this series of invited lectures we follow a tradition at the faculty of civil engineering at Bauhaus-University Weimar. We intend to provide a podium for exchange of experiences, approaches and concepts in the classical sense of *Studium Generale*.

The program is intended for

- everybody working in consultancy offices from multidisciplinary fields as social sciences, architecture, civil engineering,
- members of public and private services in the field of disaster management, public safety etc.,
- for faculty members of the involved academic fields,
- and, last but not least for the regional public interest.

We invite you and your co-workers to join us for these lectures to participate in a fruitful dialog.



Related Short Course

on
Wind Risk Mitigation in Structural Engineering
by Prof. Dr.-Ing. Höffer, Ruhr-Universität Bochum

Venue:	Bauhaus-University Weimar
Dates:	08.-12.10.2007
Inscription and further information:	gsse@uni-weimar.de

PROGRAM

Tuesday, 23. October 2007, 17-18 o'clock

"Volcanos and Volcanic Eruptions"

Prof. Jentzsch
Friedrich-Schiller-Universität Jena

Volcanic eruptions pose a great hazard to the local population and infrastructure, as well to the global climate. Volcanic products consist of rocks transported from the mantle up to the earth's surface; which offers the chance to look into deep areas of the Earth's mantle. The lecture will cover both information about volcanism as well as volcanic hazard.

Tuesday, 06. November 2007, 17-18 o'clock

"Early warning in case of potential tsunamis"

Prof. Zschau
Geoforschungszentrum (GFZ) Potsdam

Tsumanis: Why – Where – How Often. The risk of tsumamis. The German – Indonesian contribution to the tsunami early warning system for the India ocean. Some of the new scientific challenges. The technology of tomorrow.

Tuesday, 27. November 2007, 17-18 o'clock

"Risk Management for Natural Perils: the View of a Global Reinsurer"

Dr. Smolka
Münchner Rück Versicherung, München

The dramatic rise of losses from natural disasters requires a comprehensive risk management. The risk has to be shared between all affected parties, which are home- and business owners, the financial sector, and public authorities. Insurance plays a key role in financing disaster losses, but pro-active loss prevention becomes more and more important in order to keep disaster losses within a manageable range.

Tuesday, 11. December 2007, 17-18 o'clock

"Wirksame Entrauchung von Krankenhausfluren"

Dipl.-Ing. H.J. Pabst
Pabst & Partner Ingenieure, Bonn

Brandkatastrophen in Krankenhäusern und Pflegeheimen zählen nicht zu den seltenen Ereignissen. Die sich aus Rauchentwicklung und -ausbreitung ergebenden Gefahren werden zumeist unterschätzt. Der Vortrag erläutert spezielle Sicherheitsmaßnahmen zur wirksamen Entrauchung von Krankenhausfluren.

Tuesday, 22. January 2008, 17-18 o'clock

"Seismic waves and seismic hazard in the valley of Mexico City"

Prof. Malischewsky
Friedrich-Schiller-Universität Jena

In former times, the valley of Mexico City was a big lake which was later drained by the Spaniards. This is the reason for very special underground conditions: a very low shear-wave velocity and a extremely high Poisson ratio. The consequence is a special regime for the propagation of seismic waves and the necessity of special measures for earthquake-prone buildings.

Tuesday, 29. January 2008, 17-18 o'clock

"Seismic risk mitigation in Switzerland"

Dr. Wenk
Swiss society of earthquake engineering and structural dynamics

The presentation focuses on the progress made in the seismic protection of buildings and engineering works. The new Swiss Standard on the seismic assessment of existing buildings including innovative risk-based retrofit decision criteria will be discussed.