

M.Sc. Course



Nonlinear Analysis of Structures: Reinforced Concrete Frames with Masonry Infill Walls

April 3rd to 7th, 2017
and September 25th to 29th, 2017

Adressed topics

- Structure Response under Seismic Action
- Seismic Design and Detailing of Structure
- Testing of Structure using Physical Models
- Mathematical Modelling Techniques and Methodology of: Structure Construction Material, Masonry Wall and Reinforced Concrete Frame Structure
- Data Analysis and Assessment
- Simplified (Engineering) Methodologies for Structure Assessment



Strategic Partnerships for Higher Education
www.uni-weimar.de/bauing/erasmus-sp

Description



Prerequisites

- Students should have prior knowledge of Strength of Materials and Mechanics or equivalent courses
- Students should familiarise themselves with basics of structural analysis and design of concrete and masonry structures as well as with the content of Earthquake Engineering or equivalent course and related Eurocodes
- Knowledge of English language of at least Basic user A2 level is mandatory

Students will be trained in and discuss:

- Methods of modelling of reinforced concrete frames with masonry infill walls for nonlinear analysis
- Assessment of cyclic response of test structures as well as existing structures under seismic action
- Special aspects of the design of experiments including scaling issues
- Application of models and methods for the prediction of the behaviour for the blind competition and later comparison with experimental results

Content



Aims

- The course will train M.Sc. students in the field of Model Simulation
- The internal project teams shall describe the behaviour and results of an experiment in front of the conduction

Learning outcome

Upon completion of this course the participants will be able to:

- Apply current state of modelling techniques
- Use specialized advanced software
- Describe the expected behaviour and results of an experiment in front of the conduction
- Work in an international group and to practice their management, presentation and language skills

Accreditation

- Participants will earn **6 credit points (ECTS)**

Schedule



monday - friday

08:00 - 12:00	Lectures
12:00 - 14:00	Informal gathering and lunch
14:00 - 18:00	Exercises / cultural activities / teambuilding

More details can be found at our regularly updated webpage:
www.uni-weimar.de/bauing/erasmus-SP

Location



University of Osijek - Faculty of Civil Engineering Osijek
Vladimir Prelog Street No 3
HR-31000 Osijek - Republic of Croatia

Tel: +385 91 2240 759
Email: davorin.penava@gfos.hr