



National Programme on Earthquake Engineering Education

Short-Term Course on GEOTECHNICAL -EARTHQUAKE ENGINEERING (May 29 - June 3, 2006)

Objective of Course: Capacity building for seismic disaster mitigation through analysis and design of geotechnical engineering issues in buildings, structures, and lifelines.

Course Contents:

- Elements of engineering seismology. Introduction to structural dynamics.
- Seismic hazard estimation – surface rupture, liquefaction, failures of foundations, retaining structures, landslides, lifeline hazards, tsunamis. Performance of ground and foundations in past earthquakes.
- Dynamic soil properties – measurement and evaluation (soil dynamics)
- Ground response analysis – simplified linear methods, using SHAKE program, using finite element method, effect of nonlinearity of soil
- Soil-Structure Interaction – including soil-pile-structure interaction
- Local site effects and design ground motion
- Liquefaction of soils
- Ground improvement techniques
- Earthquake resistant design of foundation: dynamic bearing capacity, foundation alternatives for earthquake resistant, retrofitting of existing foundations.
- Seismic slope stability – landslides and slope failures
- Dynamic earth pressure and seismic design of retaining walls
- Vibrations of machine foundations
- Numerical modeling of geodynamic problems
- Seismic Microzonation
- Relevant seismic design codes

Target Trainees: Faculty of Engineering Colleges and a few practicing engineers.

Registration Fee: There is no registration fee for faculty of AICTE approved engineering colleges and their travel expenses (up to AC – II) will be reimbursed.

For practicing engineers, the registration fee is Rs. 5000 payable through demand draft in favor of Professor & Head, Continuing Education Center, Payable at Roorkee, which include boarding and lodging expenses. Travel expenses are to be arranged by themselves.

Resource Faculty: Faculty of the Dept. of Earthquake Engineering, IIT Roorkee and a few invited speakers.

Application forms is attached with this letter and can also be downloaded from www.nicee.org/npeee. Completed application forms duly forwarded by the Head of Institutions, should reach “**The Professor & Head, Continuing Education Center, IIT Roorkee, Roorkee (U.A.) 247 667**” before May 01, 2006.

For further details, please contact:

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