Participants

Any individual professional interested in training on the Eurocodes and in particular Eurocode 8 may apply for participation. However, an average of four participants from each country will have the possibility to participate.

Priority will be given to participants recommended by National Authorities and/or National Standardisation Bodies on a "first come, first served" policy.

Participants can come from EU Member States, EFTA Member States and EU Candidate Countries.

Event Registration

The application for participation is individual. Interested participants are requested to register online at: https://irc-meeting-registration.irc.ec.europa.eu

Details for the event registration procedure are provided at the Eurocodes website at: http://eurocodes.irc.ec.europa.eu

The deadline for application in the workshop registration site is 15 December 2010.

Shorty after application, a confirmation of registration acceptance will be sent to the applicant by the Organising Committee.

Attendance Fees

No registration/attendance fees are requested from the participants. They are responsible for their own travel, accommodation and subsistence costs, which will not be reimbursed by the European Commission.

The participants may find financial support from their National Administration, industry or from other sponsoring sources.

The participants should take care of their own travel and accommodation arrangements.

Workshop Material

A "training package" consisting of the presentations handouts and the technical papers with the worked examples plus all other relevant materials will be distributed to the participants.

Venue

Laboratório Nacional de Engenharia Civil (LNEC), Av. do Brasil 101, 1700-066 Lisbon, Portugal

Language

English (no translation will be provided).

Organising Committee

A. Pinto, A. Athanasopoulou, B. Acun, M. Poljanšek, D. Strezova Joint Research Centre

E. Carvalho CEN/TC250 SC8

E. Coelho, M. Pipa, P. Pontifice Laboratório Nacional de Engenharia Civil, Lisbon, Portugal

With the Support of

European Commission DG Enterprise and Industry: V. Leoz Argüelles, M. Fuchs Joint Research Centre

CEN/TC250: J.-A. Calgaro (Chairman), M. Greenley (Secretariat) CEN Management Centre: A. Da Costa

Laboratório Nacional de Engenharia Civil, Lisbon, Portugal

Further Information

Eurocode 8 Workshop Secretariat European Commission Joint Research Centre (JRC) ELSA, IPSC TP 480, Via E. Fermi, 2749 I-21027 Ispra (VA), Italy

Tel.: +39 0332 789484, Fax: +39 0332 789049 Email: <u>eurocodes-seismic2011@jrc.ec.europa.eu</u>

http://eurocodes.jrc.ec.europa.eu

The European Commission website on the Eurocodes



SEISMIC DESIGN OF BUILDINGS

Workshop with worked examples

10-11 February 2011

Lisbon, Portugal

First announcement



Organised and supported by

European Commission: DG Enterprise and Industry and Joint Research Centre

CEN/TC250, CEN/TC250 SC8, CEN Management Centre and Member States

Laboratório Nacional de Engenharia Civil (LNEC), Lisbon, Portugal







Towards the Eurocodes Era

The Eurocodes have reached the final stage of national implementation by the Member States.

The Eurocodes are becoming the European-wide means for structural design of works contributing towards an internal market with free circulation of construction products and services. The potential opportunities stemming from cross-border trade are of interest to the entire industry, the design and construction sectors of the civil engineering and building industries.

To achieve an adequate application of the Eurocodes in the Member States, all involved actors, including National Standardization Bodies, Technical and Scientific Organisations and especially, the design and construction industry, must be prepared and ready to use them. For this purpose, technical training, continuing professional development and university courses should be arranged and encouraged at national and international level. According to Annex A of Guidance Paper L, training of staff is the responsibility of industry, in cooperation with National Authorities and National Standardisation Bodies.

A strategy and a general programme for promotion and training on the Eurocodes have been established through the project: "Support to the implementation and further development of the Eurocodes" (JRC report: http://eurocodes.jrc.ec.europa.eu/doc/EUR22857EN). Three levels of training are included in the programme:

- Level 1 the policy of Eurocodes implementation, National Annexes, co-existence with National Codes, etc:
- o Level 2 introductory courses for each individual Eurocode;
- Level 3 comprehensive courses with design examples of a number of typical structures using a particular package of Eurocodes.

The European Commission contributes towards consistency in the adoption and use of the Eurocodes in the Member States and to facilitate training and awareness campaigns. The website "Eurocodes: Building the future" (http://eurocodes.jrc.ec.europa.eu) serves as a platform for the collection, exchange and dissemination of training and promotional material and information.

Objectives

This workshop (Level 2/3) with emphasis on **worked examples** intends to contribute towards the transfer of background knowledge and expertise of Eurocode 8 (EN 1998 Design of structures for earthquake resistance) writers (CEN/TC250 Sub-Committee 8) to potential trainers at national level and Eurocode users.

The principal objectives of the workshop are to:

- transfer knowledge and information to representatives of key organisations/institutions, industry and technical associations in Member States:
- o provide state-of-the-art training material, background information and worked examples to Eurocodes trainers and users;
- o facilitate exchange of views, networking and cooperation.

Preliminary Programme

The workshop will commence in the morning of February 10 and conclude in the afternoon of February 11. The workshop will include the presentation of **building design examples** drawing illustrations according to Eurocode 8 with different sessions covering different aspects of the seismic design. Each session will also provide a general overview of the relevant Eurocode 8 parts. The workshop sessions will address the design of reinforced concrete and steel building structures. There will also be an overview of issues related to design and detailing of secondary seismic elements and concrete foundation elements. The design of base isolated buildings will also be covered and one session will be dedicated to the assessment and retrofitting of buildings.

More details on the workshop sessions and program can be found at the Eurocodes website at: http://eurocodes.jrc.ec.europa.eu

http://eurocodes.jrc.ec.europa.eu

The European Commission website on the Eurocodes

Preliminary Programme

Thursday, Feb	ruary 10
09:30 - 10:00	Welcome addresses LNEC, CEN/TC250, DG ENTR, DG JRC
10:00 — 10:30	Overview of Eurocode 8 E. Carvalho
10:30 — 11:00	Introduction to the RC building design example E. Carvalho
11:30 — 12:15	Ground conditions and seismic action E. Carvalho
12:15 — 13:00	Modeling and analysis of the design example. Safety verifications (part 1) P. Fajfar
14:00 — 14:45	Modeling and analysis of the design example. Safety verifications (part 2) P. Fajfar
14:45 — 17:45	Specific rules for design and detailing of concrete buildings. Illustration of elements design <i>M. Fardis</i>
17:45 — 18:30	Design and detailing of secondary seismic elements. Provisions for concrete diaphragms. Local effects due to infills. M. Fardis
Friday, Februa	ry 11
09:00 — 11:00	Specific rules for design and detailing of steel buildings. Illustration of elements design. A. Plumier
11:30 — 12:45	Design of concrete foundation elements A. Pecker
14:00 — 15:30	Base isolation – overview of key concepts Ph. Bisch
16:00 — 17:30	Assessment and retrofitting of buildings P. Pinto
17:30 — 18:00	Panel discussion and closure Participants and Members of CEN/TC250/SC8