MINUTES OF THE EXECUTIVE COMMITTEE MEETING

Meeting number: 6   Date: 17 February 2021

(tele-meeting)

Attendance:

Kyriazis Pitilakis (KP), President

Atilla Ansal (AA), Vice President

Radu Vacareanu (RV), Vice President

Andreas Kappos (AK), Secretary General

Alain Pecker (AP)

Christoph Butenweg (CB)

Mauro Dolce (MD)

Rita Bento (RB)

Katrin Beyer (KB)

Maria José Jiménez (MJ), ESC Representative

Apologies:

None

This extraordinary meeting of the Executive Committee (ExCo) of the European Association for Earthquake Engineering for the 2018-2022 period was held as a teleconference (Zoom) on Wednesday 17 February 2021 between 15:00 and 17:00 CET.

The Executive Committee meeting was chaired by the President.

Agenda:

1. Update on Ambraseys Award
2. Dates of the 3ECEES
3. Eurocode 8 Webinars
4. Date of the next meeting

Item 0:

The agenda was approved without amendments. As the regular annual meeting was already held in May (see minutes), the annual reports of the President, SG and Central Office were submitted at the regular meeting.

Item 1:

The Secretary General informed the ExCo that up to now three nominations of (high-profile) candidates have been submitted by ExCo and/or Award Panel members. Nominations are still open until the end of the month.

Item 2:

RV on behalf of the Organising Committee of the 3rd ECEES which he chairs briefed the ExCo on the discussions held among the local organisers regarding a possible postponement of the dates of the Conference; two options were considered: holding the conference in 2022, but after summer, rather than in June as initially scheduled, or postponing it for 2023.

After discussing the options, the ExCo's clear preference was for the ECEES to be held in 2022, with preferred starting date Sunday the 28th of August, with 4 September as an alternative. RV will take this up with the Local OC, and MJ, who also supports this option, will take up the issue with the ESC ExCo and will communicate their decision in the next few days; it is expected that the ESC will agree with this proposal. Provided that this agreement will be reached, and that the Local OC is also in agreement with it, the EAEE ExCo will confirm by e-vote the change of dates of the ECCES; submission deadlines etc. will be subsequently extended in line with the new dates.

***Post-meeting note*:**

Regarding the starting date of the 3ECEES, on 9/3/21, the ExCo agreed (by e-vote) with the date proposed by the Local OC, i.e. 4 Sep. 2022.

Item 3:

RB briefed the ExCo on developments regarding the series of webinars on the varius parts of Eurocode 8. After close liaison with the SC8 Chair and the leaders of the Project Teams, a total of 33 webinars were proposed, covering all aspects of each part. She also communicated to the ExCo a proposal by AK for coordinators for the various webinars (two people/webinar, one on the SC8 side – basically the PT leaders – and one on the EAEE side, mostly leaders of pertinent WGs).

The ExCo discussed the issue in length and finally converged to the following:

- Although the *number* (33) of webinars (see Annex 1) seems quite high, it is not advisable to force the coordinators of each webinar to reduce the number, which was proposed by the PT leaders themselves and the SC8 Chair. The point of possible reduction in the parts that have large number of webinars (more than 5) will, nonetheless, be made when inviting them.
- Regarding *duration*, some flexibility is needed, as not all webinars have the same scope; however, each presentation should not exceed 45 min, and the total duration (including Q&A) should not exceed one hour.
- The following potential coordinators will be invited by the EAE for each series of webinars:
  - Part 1-1: P. Labbé (PT1) and A. Ansal (EAEE vice-president)
  - Part 1-2: A. Plumier (PT2) and E. Booth (WG1)
  - Part 2: P. Franchin (PT6) and A. Kappos (WG11)
  - Part 3: A. Kappos (PT3) and R. Bento (WG12)
  - Part 4: C. Butenweg (PT4) and F. Paolacci (WG13)
  - Part 5: A. Pecker (PT5) and K. Pitilakis (EAEE President)

- All webinars will be delivered through a Zoom platform to be organised by RB and her WG12. They will also prepare a template for the presentations, with the EAEE logo on at least the front page, and take care of the 'logistics' of the entire programme.
- Regarding *dissemination* of the webinar material, several ideas were coined and no final decision was made at this stage. Overall, it was clear that it is almost impossible to keep dissemination under full control, but on the other hand it is clear that EAEE expects to somehow benefit from making this effort and expenditure. Hence, EAEE members will have priority in enrolling for the webinars, and an effort will be made to have recordings, handouts etc. available on the EAEE website. CB and AP will contact Ph. Bisch to seek his advice, prior to making a final decision about dissemination of the webinar material.

Post-meeting note:

Regarding the EAEE webinars on EC8, the ExCo, taking into account the response of the people contacted by 9/3/21, as well as the time schedule for finalising the various parts, decided (by e-vote) to start the series of webinars in Sep. 2021. WG12 who is in charge of the webinar organization, will submit in due course a proposal to the ExCo for the final programme of the webinars and the way that the material originating therefrom will be disseminated.

Item 4:

It was decided to hold another ExCo extraordinary meeting to deal primarily with the Bucharest ECEES and the webinars, either in late March or early April. The regular annual meeting of the ExCo will most possibly take place in September, one year before the Conference (in Bucharest, if travelling is feasible).

Andreas Kappos
Secretary General

Annex 1

EAEE - Programme of WEBINARS on EC8

Webinar 0: General presentation of the Webinars
This presentation should be made by EAEE: objectives, organisation, actors, etc. It may be shorter than the other ones.

Webinar 1-1: General rules and seismic action
Webinar 1-1.1: Organisation and concepts of EN1998
- General frame and 2nd generation of ECs.
- Link of EC8 with other ECs, in particular EN1990: consequence classes, seismic situation…
- Organisation of EC8.
- General objectives of EC8, compliance criteria.
- Limit states.
- Ductility classes. Principles of verification in DC1, DC2 and DC3, application of capacity design.

Webinar 1-1.2: Seismic action
- Definition of seismic action (elastic response spectrum) and characteristic values.
- National choices and NDPs.
- Site classification and associated parameters.
- Alternative representations, spatial model.

Webinar 1-1.3: Modelisation, analysis and verification rules
- General view on analysis methods
- Use of the full elastic analysis
- Force based analysis: design spectrum, modelling for linear analysis, combination rules
- Displacement based methods: modelling for non-linear analysis, static and time history analyses
- Principles of verification rules

Webinar 1-1.4: Non-linear static analysis in Eurocode 8
- Description of the method: capacity curve, target displacement
- Verification of the limit states
- Deformation criteria: general rules, concrete, steel

Webinar 1-1.5: Use of anti-seismic devices
- General rules in EN1998-1-1
- Application for based isolated buildings (EN1998-1-2)
- Application to buildings with energy dissipation systems (EN1998-1-2)

Webinar 1-1.6: New buildings: basis of design and analysis
- Design objectives and compliance criteria
- Conceptual design (primary/secondary, torsion…)
- Modelling and analysis
- Verification to limit states
- Floor spectrum

Webinars EN1998-1-2: Rules for New Buildings
Webinar 1-2.1: Reinforced concrete buildings
- Structural types, behaviour factors, limits of seismic action and limits of drift;
- Design for DC1, DC2 and DC3
- Moment resisting frames;
- Ductile walls;
- Large walls;
- Flat slabs
- Diaphragms
- Anchorage and laps
- Precast concrete structures

Webinar 1-2.2: Steel buildings and Aluminium buildings
- Structural types, behaviour factors, limits of seismic action and limits of drift;
- Design for DC1, DC2 and DC3
- Design criteria for dissipative structures
- Design rules for dissipative elements – compression - bending - tension
- Connections in dissipative zones. Column splices
- Moment resisting frames
- Frames with concentric bracings
- Frames with eccentric bracings
- Frames with buckling restrained bracings
- Light weight structures
- Provisions for supply of material and execution
- Aluminium buildings

Webinar 1-2.3: Composite Steel-Concrete Buildings
- Structural types, behaviour factors, limits of seismic action and limits of drift;
- Design for DC1, DC2 and DC3
- Design criteria for dissipative structures
- Stiffness of sections
- Design rules for dissipative elements – compression - bending - tension
- Connections in dissipative zones. Column splices
- Moment resisting frames. Effective width of slabs.
- Frames with concentric bracings
- Frames with eccentric bracings
- Frames with buckling restrained bracings
- Provisions for supply of material and execution

Webinar 1-2.4: Timber buildings
- Structural types, behaviour factors, limits of seismic action and limits of drift;
- Design for DC1, DC2 and DC3 and design criteria for dissipative structures
- Cross laminated timber structures
- Light-frame structures
- Log structures
- Moment resisting frames
- Braced frame structures with dowel-type connections
- Vertical cantilever structure

- Braced frame structures with carpentry connections and masonry infill
- Floor and roof diaphragms
- Transfer level

Webinar 1-2.5: Masonry buildings
- Design concepts.
- Rules applicable to DC1 or DC2 structures. Behaviour factors
- Structural analysis. Modelling rules for linear analysis and non-linear analysis.
- Verification of limit states. In-plane actions. Out-of-plane actions.
- Rules for members. Limitations of piers and walls dimensions.
- Design rules for unreinforced, confined and reinforced masonry in DC2
- Rules for simple masonry buildings
- Ultimate deformations for unreinforced, confined and reinforced masonry members

Webinar 1-2.6: Miscellaneous items related to the design of new buildings
- Ancillary elements
- Masonry infilled frames
- Frames with claddings
- Cyclic testing of structural components

Webinar EN1998-2: Bridges
Webinar 2.1: Bridge classification and structural analysis
- This will deal with methods for analysis for cases where spatial variability need not to be considered

Webinar 2.2: Structural analysis for bridges accounting for spatial variability of ground motion
- This will illustrate the new methods for accounting of spatial variability of ground motion

Webinar 2.3: Integral abutment and cable-stayed bridges
- This will present the bridge types that were not included in the first generation EN1998-2

Webinar 2.4: Bridges equipped with antiseismic devices

Webinars EN1998-3: **Assessment and retrofitting of buildings and bridges**
Webinar 3.1: Basis of design and data for assessment (P. Franchin, TBC)
- Performance requirements and compliance criteria for existing structures
- General procedure for the assessment and retrofit design
- Required input data
- Knowledge levels
- Representative values of material properties

Webinar 3.2: Structural analysis, verification, and design of interventions (T. Isakovic and/or A. Kappos, TBC)
- Modelling of existing structures
- Analysis using the force-based approach
- Analysis using the displacement-based approach
- Safety verifications

-   Criteria for structural interventions and retrofit design

Webinar 3.3: Assessment and retrofit of reinforced concrete structures (C. Chrysostomou and/or A. Kappos, TBC)
-   Identification of geometry, details and materials
-   Modelling issues in existing R/C structures
-   Resistance models for assessment
-   Resistance models for retrofitting
-   Verification of Limit States

Webinar 3.4: Assessment and retrofit of steel structures (D. Lignos, TBC)
-   Identification of geometry, details and materials
-   Modelling issues in existing steel structures
-   Resistance models for assessment
-   Resistance models for retrofitting
-   Verification of Limit States

Webinar 3.5: Assessment and retrofit of timber buildings (M. Fragiacomo and/or A. Jorissen, TBC)
-   Identification of geometry, details and materials
-   Modelling and analysis of existing timber buildings
-   Resistance models for assessment
-   Resistance models for retrofitting
-   Verification of Limit States

Webinar 3.6: Assessment and retrofit of masonry buildings (S. Lagomarsino, TBC)
-   Identification of geometry, details and materials
-   Modelling and analysis of existing masonry buildings
-   Resistance models for assessment
-   Resistance models for retrofitting
-   Verification of Limit States

Webinar 3.7: Assessment and retrofit of bridges (T. Panagiotakos, TBC)
-   Performance requirements and compliance criteria for existing bridges
-   Information for structural assessment
-   Assessment procedures
-   Design of structural interventions

Webinars EN1998-4: Silos, tanks, pipelines, towers masts and chimneys
Webinar 4.1: Silos
-   Design concept: On-ground and elevated silos
-   Modelling and structural analysis
-   Ductility classes and behaviour factors
-   Force based approach
    -   Support forces
    -   Silo pressures in cylindrical and rectangular silos
-   Verification to SD and DL limit states
-   Anchorage systems

Webinar 4.2: Tanks
- Design concept: Above-ground and elevated tanks,
- Modelling and structural analysis
- Ductility classes and behaviour factors
- Hydrodynamic pressures: Convective and impulsive pressures
- Force based approach using normalized pressure functions
    - Support forces
    - Hydrodynamic pressures in vertical cylindrical and rectangular tanks
    - Hydrodynamic pressures in horizontal cylindrical and rectangular tanks
- Verification to SD and DL limit states
- Anchorage systems

Webinar 4.3: Above-Ground pipelines
- Design concept: Above-ground and supported pipelines
- Modelling and structural analysis
- Ductility classes and behaviour factors
- Spatial variability
- Permanent ground deformations: faults, landslides
- Liquefaction: buoyancy, lateral spreading, local settlements
- Verification to SD and DL limit states
- Foundations

Webinar 4.4: Buried pipelines
- Design concept
- Modelling and structural analysis
    - Simplified strain-based approaches
    - Soil-structure interaction models
- Seismic loading:
    - Wave propagation
    - Permanent ground deformations: Faults, landslides, settlements, slopes
    - Liquefaction: Buoyancy, lateral spreading, local settlements
- Maximum compressive and tensile strains
- Verification to SD and DL limit states
- General design considerations

Webinar 4.5: Towers, masts and chimneys
- Design concept: On-ground and elevated silos
- Modelling: Masses, stiffness, damping
- Structural analysis with second order effects
- Ductility classes and behaviour factors
- Reinforced concrete chimneys
- Steel chimneys
- Steel towers
- Verification to SD and DL limit states

Webinar 4.6: Ancillary elements in industrial facilities
- Design concept
- Single-attachment/supports and multi-attachments/supports

- Structural analysis: modal response and time-history analysis
- Inlets, outlets, pipes and ancillary elements
- Modelling approaches
    - Structure-component interaction
    - Floor spectra
    - Equivalent horizontal force
- Anchorages: Non-dissipative and inelastic design approach
- Verification to SD and DL limit states

Webinars EN1998-5: Geotechnics
Webinar 5.1 (1h30)
- Basis of design for geotechnical structures and systems
- Seismic actions for geotechnical structures
- Application to geotechnical structures: site stability (slopes, liquefaction…)

Webinar 5.2 (1h30)
- Soil structure interaction
- Foundation systems: shallow foundations, piles, raft

Webinar 5.3 (1h00)
- Underground structures
- Retaining structures