JCSS

Joint Committee
on Structural Safety

Workshop on Assessment of Existing Structures

28th and 29th January 2021

Summary, Conclusion and Discussion

Jochen Köhler and Alan O'Connor

Day 1 (28th January 2021)

12:00-12:15 Welcome – Michael Faber

12:15-12:30 Short Opening Speech – Steve Denton

12:30-14:00 Session I: Practical Assessment – Requirements and Examples – Peter Tanner

Aurelio Muttoni - *Lessons Learnt Assessing Structures in the Last 30 Years*
Aleš Žnidarič - *Monitoring Bridges Using Bridge Weigh-in-Motion Technology*
Svend Engelund - *Some Experiences with Proof Loading of Bridges*
Pietro Croce - *Rehabilitation and Seismic Upgrading of the Villafranca Bridge*

Discussion – Chaired by Peter Tanner

14:00-14:15 Coffee break

14:15-15:45 Session II: Semi-Probabilistic Methods – Robby Caspeele

Miroslav Sykora/Dimitris Diamantidis – *fib TG 3.1 Developments Concerning Semi-Probabilistic Format*
Christian Glock - *Determination of Characteristic Concrete Compressive Strength of Existing Structures According to EN 13791:2019*
André Orcesi - *Semi-Probabilistic Format for the Assessment of Existing Bridges: Concepts and Challenges*
John Sørensen/Jochen Köhler - *Potential and Challenges of the Design Value Approach*

Discussion – Chaired by Robby Caspeele

15:45-16:00 Coffee break

16:00-18:00 Session III: Codification – Ton Vrouwenvelder

Paul Lüchinger - *Standardization for Assessment of Existing Structures - The European Approach*
Thomas Lang/Fabrizio Palmisano - *Standardization for Assessment of Existing Structures - Evolution from TS to Eurocode*
Paolo Franchin – *Second Generation of Eurocode 8 Part 3 on Seismic Assessment and Retrofit of Existing Structures*
Bruce Ellingwood/Jim Harris - *Standardization for Assessment of Existing Structures in the USA*

Discussion – Chaired by Ton Vrouwenvelder

How to integrate Multiple Expertise ?

How to simplify / generalize complexity ?

How to cover the field with a finite set of rules ?

09:00-10:30 Session IV: Probabilistic Methods – John Sørensen

Matthias Schubert - *A Showcase of a Reliability-Based Approach to an Existing Offshore Steel Structure*
Agnieszka Bigaj-van Vliet – *Probabilistic Principles Applied in fib Model Code 2020*
Daniel Straub/Max Teichgräber – *Thinking About Hidden Safety When Assessing Existing Structures*
Joan Hee Roldsgaard – *Capacity Upgrade of Existing Bridges with Probabilistic Methods*

Discussion – Chaired by John Sørensen

10:30-10:45 Coffee break

10:45-12:15 Session V: Updating and Monitoring – Celeste Viljoen
Helmut Wenzel - *Updating and Monitoring of Signature Structures*
Ana Mandić Ivanković – *Assessment of Bridges Based on Updated Information and Monitoring, Croatian Perspectives*
Alfred Strauss – *Novel Techniques Regarding the Assessment and Monitoring of Structures*
Sebastian Thöns – *What Makes the Value of Information?*

Discussion – Chaired by Celeste Viljoen

12:15-12:45 Workshop Conclusion and Discussion – Jochen Köhler

How to utilize higher level of analysis ?

How to simplify/generalize complexity ?

How to move on ?

Discussion

- Decision on the level of detail for the reassessment
  - What are the benefits of higher analysis
  - What are the obstacles
- Criteria for reassessment and how to apply them consistently
- Challenges for standardisation
- Way forward: What can we do?

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- Way forward: What can we do?

Thank you very much !!

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