JCSS
Joint Committee
on Structural Safety

IABSE

Announcement

Workshop on Risk Acceptance Criteria in Civil Engineering Decision Making

8.-9. June 2020, Trondheim, Norway

Motivation

Safety is fundamental in society, and provision of sufficient safety for the users of infrastructure facilities is one of the main obligations for civil engineers. Similarly, it is one of the main obligations for the regulators to provide the framework for the evaluation of safety across types of infrastructures and across industries. However, safety of individuals and associated welfare of the public come at a price. Requirements to safety and acceptable risks to life and health have strong implications on the present allocation of societally shared resources and trade-offs play a crucial role for sustainable societal development.

Thus, to ensure adherence to safety, while facilitating optimal and sustainable allocation of publicly shared resources, it is paramount to establish and act in accordance with an adequate rationale.

It has for long time been clear to professionals dealing with safety and risk that such a commonly accepted rationale has not yet been implemented. Presently a variety of incoherent regulations, standards and codes are applied - and what is understood as best practices of safety management may not always be justified with respect to an adequate level of safety, where the resources used are in balance with objectives of the society.

In consideration of the significance of safety regulation, the common rationale is evidently missing. The motivation for this workshop is, with a focus on safety management within civil engineering, to bring together the main stakeholders: regulators, public authorities, planners, designers, owners and operators infrastructures as well as leading experts from industry and academia, with the objective to pin down the main reasons for the present situation, to agree on the actions needed to correct the situation and finally on the allocation of responsibilities for implementing these.

The workshop is organized by IABSE Commission 1 and JCSS as a structured and facilitated discussion, inspired by targeted presentations from a few selected stakeholders. Experts and stakeholders are specifically invited for contributing and participating in the discussion. The presentations and the discussion at the workshop will be documented in the proceedings. The main emphasis of the workshop is to establish a consensus on how to proceed.

Scope:
The following topics will be addressed:

- Risk acceptance - overview and regulatory context
- Decision theoretical concepts
- Notional reliability-based criteria
- F-N criteria
- Qualitative approaches
- Cases with large epistemic uncertainties
- Risk aversion

Format: The workshop will comprise of sequential technical sessions where the mentioned topics are introduced by an introductory keynote. The workshop is closing with a discussion and conclusion.

Proceedings: The introductory keynotes, technical papers, discussions and the conclusion of the workshop will be published in a special issue of IABSE Structural Engineering International.

Key dates: Abstract submission: 31.1.2020, (voluntary) paper submission 30.5.2020. Workshop 8.-9.6.2020.

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