IABMAS Technical Committee

Bridge Load Testing

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TU Delft

Committee start and composition

- IABMAS Bridge Load Testing Committee
- Inaugurated June 4th 2021
- 27 members
  - 17 from academia
  - 7 from industry
  - 3 from government
- Welcome members from industry and government, especially from countries not represented yet

International committee

- 18 countries
  - Chile
  - Colombia
  - Costa Rica
  - Czech Republic
  - Denmark
  - Ecuador
  - Germany
  - India
  - Italy
  - Japan
  - Poland
  - South Korea
  - Spain
  - Sweden
  - The Netherlands
  - UK
  - USA

Commitee goals

- Organize dedicated sessions
- National IABMAS group events
- Exchange information
- Exchange lessons learned and best practices.
- Inform about case studies of bridge load testing.
- Communicate load testing guides or standards
- Forum for new ideas and applications of technology.
- Identify potential research topics.
- Establish international collaborations.
- Liaise with relevant committees

Report of meetings

- June 4th 2021
  - Minutes on website
  - Discussion of goals and mission
  - Supplementary (diagnostic) load testing on the new Queensferry Crossing at Edinburgh – Dave Cousins
  - Opportunities for collaboration
- October 25th 2021
  - Bridge load testing practice in Inida – Alok Bhowmick
  - Assessment of bridge deck performance with overall elastic wave velocity – case study before/after repair Works – Tomoki Shiotani
  - Digitally twinned load tests in railway bridges – Rolando Chacon
  - Liaisons to other committees to establish

Report of meetings

- April 13th 2022
  - Opportunities for membership
  - Kalix bridge proof loading and demolition – Gabriel Sas
  - Field testing of a full-scale riveted railway bridge removed from service - Boulent Imam
  - Research on bridge load testing in Denmark - Jacob Schmidt
  - Upcoming events

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INTERNATIONAL ASSOCIATION FOR BRIDGE MAINTENANCE AND SAFETY

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- FIELD OF ACTIVITY
- MISSION
- OBJECTIVE
- MEMBERSHIP
- ACTIVITIES
- BROCHURE
- EXECUTIVE COMMITTEE
- ADDRESS LIST
- JOIN IABMAS
- TECHNICAL COMMITTEES
- IABMAS AWARDS, T.Y.LIN MEDAL & T.Y. LIN LECTURE
- NATIONAL GROUPS
- SPONSORED EVENTS
- IABMAS CONFERENCES
- INDIVIDUAL MEMBERS
- COLLECTIVE MEMBERS
- STRUCTURE AND INFRASTRUCTURE ENGINEERING

IABMAS Technical Committee on Bridge Load Testing

Mission:

Bridge Load Testing is a field testing technique that can be used to obtain more information about the performance of bridges. In particular, diagnostic load tests can be used to quantify elements of structural performance such as transverse distribution, unintended composite action, repair effectiveness, etc. and the information of a diagnostic load test can serve to develop field-validated models of existing bridges that can be used to develop a more accurate assessment of the bridge's performance. Proof load testing can be used to demonstrate directly that a bridge can carry a load that is representative of the code-prescribed live load, provided that the bridge does not show signs of distress. Other types of load testing include testing for dynamic properties, and parameter-specific tests. Load test data as well as the analytical assessment of the data can be used to make more informed decisions and manage the life-cycle performance and maintenance of bridges.

Aspects of bridge load testing that are of particular interest to bridge owners are having an overview of the typical uses for bridge load tests, the decision on when to load test or not, which information to obtain from the load test, and how this

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- Committee meeting on July 12th
- Session IABMAS 2022

[MS05] Assessment of existing infrastructure assisted by field data

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Accurate assessment of existing infrastructure is often challenging due to the lack of information. Field data can be a valuable resource to support this process. In this special session, we want to bring together experiences and theoretical developments that showcase how field data can be efficiently and effectively used to develop improved, more evidence-based assessments. We welcome case study articles as well as papers on the following theoretical topics: improved methods for field testing of existing infrastructure, the updating of numerical models with the input of field data for the assessment of existing infrastructure, evaluation of the uncertainties on field data and their impact on bridge assessment, the application of non-destructive testing in infrastructure assessment, long-term monitoring, and consistency and potential standardization of these applications.

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Thank you for your attention

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