CURRICULUM VITAE

NAME: OLE ANDRE ØISETH

PERSONAL INFORMATION

Name: Ole Andre Øiseth
Date of Birth: May 22th, 1982
Nationality: Norwegian
Language: Norwegian (native), English (fluent)

CURRENT CONTACT INFORMATION

Position: Professor and Head of Structural Mechanics Research Group
Affiliation: Department of Structural Engineering, Structural Mechanics Group, Norwegian University of Science and Technology (NTNU)
Postal Address: Department of Structural Engineering, NTNU, Richard Birkelands vei 1A NO-7491 Trondheim, Norway
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EDUCATION

08.2007 – 11.2011	PhD in Structural Engineering, NTNU
08.2005 – 06.2007	M.Sc Structural Engineering, NTNU
08.2002 – 06.2005	B.Sc Structural Engineering, Gjøvik University College

PROFESSIONAL EXPERIENCE

08.2019−Present	Head of Structural Mechanics Group, IV, NTNU
09.2017−Present	Professor, Department of Structural Engineering, IV, NTNU
12.2011−09.2017	Associate Professor, Department of Structural Engineering, IV, NTNU
08.2011−12.2011	Assistant Professor, Department of Structural Engineering, IV, NTNU
08.2007−08.2011	PhD Candidate, Department of Structural Engineering, IV, NTNU

TEACHING EXPERIENCE

- Supervisor of 80 master students (since 2012)
- TKT 4201 Structural Dynamics
- TKT 4230 Steel Structures 2
- TKT 4108 Dynamics Advanced Course
- KT 8211 Computational Methods in Structural Dynamics
- Responsible for “Teknostart” in Civil and Environmental Engineering

POPULAR SCIENCE COMMUNICATION

- The history of suspension bridges. Interview on the radio program Norgesglasset 28.04.2017.
- How to cross a fjord? Lecture at Bergen University College 09.11.2016

RESEARCH FIELDS AND INTERESTS

Wind Engineering: Frequency and time domain methods for prediction of wind induced dynamic response of buildings and long span bridges, wind measurements, processing of wind measurements, wind tunnel testing.

Marine Engineering: Frequency and time domain methods for prediction of wave induced dynamic response of floating bridges. First and second order wave loads, wave field modelling, wave measurements, processing of wave measurements.

Structural Monitoring and System Identification:

Sensor technology, operational modal analysis, damage detection

Structural Safety and Reliability

Application of first and second order reliability methods, inverse first and second order reliability methods, extreme value statistics, long-term extreme value statistics, enhanced Monte Carlo simulations. Prediction of characteristic load effects.

PHD CANDIDATES

Main Supervisor:

Tor Martin Lystad (Active)

Development of efficient and precise methods for wind response predictions used in design calculations for long-span bridges

Henrik Skyvulstad (Active)

Modelling of wind loading on bridge decks. An experimental study.

Dario Fernandez Castellon (Active)

Probabilistic modelling of the wind field and long-term extreme response assessment of long-span cable supported bridges.

Niccolo Barni (Active) (Dual degree with the University of Florence)

Nonlinear buffeting response of bridge structures in turbulent flow

Oddbjørn Kildal (Active)

On the use of an active grid to simulate turbulence for wind tunnel testing of bridge decks.

Anno Christian Dederichs (Active)

Digital twins and structural health monitoring of long-span bridges.

Knut Andreas Kvåle (Graduated)

Verification of the analysis procedures used to calculate dynamic response of floating bridges subjected to environmental actions.

Øyvind Wiig Petersen (Graduated)

Force identification in bridges using measured dynamic response

Aksel Fenerci (Graduated)

Dynamic modelling and analysis of long span cable-supported bridges subjected to wind loading: emphasis on field measurements.

Bartosz Siedziako (Graduated)

Dynamic modelling and analysis of long span cable-supported bridges subjected to wind loading: emphasis on wind tunnel testing.

Yuwang Xu (Graduated)

Dynamic modelling and analysis of long span cable-supported bridges with floating towers subjected to wind and wave loading

Co supervisor:

Bjørn Thomas Svendsen (Active)

Dynamic analysis and full-scale experiments of existing railway bridges; system identification and damage detection exploring sensor technology and modal analysis

Tengjiao Jiang (Active)

Dynamic Properties of Railway Bridges in Service by Photogrammetric Measurements

Sebastian Reymert (Active)

Coupled vehicle-bridge-driver dynamic modelling under severe environmental conditions

Bernardo Costa (Active) (University of Stavanger)

The design of floating bridges subjected to wave and wind loads

Mitja Papinutti (Active) (University of Ljubljana)

Dynamic Analysis of floating bridges subjected to wind and wave loads.

Torodd Skjerve Nord (Graduated)

Force and response estimation on bottom-founded structures prone to ice-induced vibrations

Petter Nåvik (Graduated)

Dynamic behaviour of existing and new contact wire systems at high speed for Norwegian conditions.

Gunnstein Thomas Frøseth (Graduated)

Evaluation and extension of remaining service life of riveted steel railway bridges under increasing axle loads and velocities

Finn Idar Grøtta Giske (Graduated)

Models and methods for prediction of actions and dynamic response of chained floating bridges.

Thomas Viuff (Graduated)

Modelling and analysis of damping in structural systems

Tore Helgedagsrud (Graduated)

Numerical modelling of wind forces on bridge decks using state of the art FSI methods.

Stefano Derosa (Graduated)

Global structural behaviour and local wear predictions of catenary pantograph interaction by numerical modelling and field measurement validations

POSTDOCTORAL FELLOWS

Knut Andreas Kvåle (Active)

Dynamic stability of structures subjected to parametric excitation, structural health monitoring

Aksel Fenerci (Active)

Dynamic response of floating bridges subjected to wave and wind loading with focus on hydrodynamic interaction between pontoons and full long-term extreme value analysis.

Øyvind Wiig Petersen (Active)

Digital twins of structures subjected to environmental loading.

Mingjie Zhang (Active)

Flow induced vibrations of finned tubed bundles in light weight heat exchangers for gas turbines.

VISITING RESEARCHERS

Randi Nøhr Møller (2017)
PhD candidate from Denmark Technical University. Supervisor: Steen Krenk

Michael Styrk Andersen (2016-2017)
PhD candidate from the university of Sothern Denmark. Supervisor: Anders Brandt

Filipe Magalhães (2017)
Professor Faculty of Engineering, University of Porto

Margaux Geuzaine (2021)
PhD candidate from University of Liège. Supervisor: Professor Vincent Denoël

Xu Wang (2021-2022)
PhD candidate from Dalian University of Technology. Supervisor: Professor Fuyou Xu

Haiyan Yu (2021-2022)
PhD candidate from Dalian University of Technology. Supervisor: Professor Fuyou Xu

ACADEMIC COOPERATION

- Professor Anders Rønnquist, NTNU Department of Structural Engineering
- Professor Svein Remseth, NTNU Department of Structural Engineering
- Professor Kjell Magne Mathisen, NTNU Department of Structural Engineering
- Professor Torgeir Moan, NTNU Department of Marine Technology
- Professor Bernt Leira, NTNU Department of Marine Technology
- Professor Jørgen Amdahl, NTNU Department of Marine Technology
- Professor Arvid Naess, NTNU Department of Mathematical Sciences
- Professor Lars Sætran, NTNU Department of Energy and process engineering
- Professor Jason Hearst, NTNU Department of Energy and process engineering
- Professor Knut Høyland, NTNU Department of Civil and Environmental Engineering
- Professor Jasna Bogunovic Jakobsen, Department of Mechanical and Structural Engineering and Materials Science, University of Stavanger, Stavanger, Norway
- Professor Alberto Zasso Department of Mechanical Engineering Politecnico Di Milano
- Professor Tommaso Argentini Department of Mechanical Engineering Politecnico Di Milano
- Professor Andrei Metrikine, Faculty of Civil Engineering and Geosciences of TU Delft
- Associate Professor Eliz-Mari Lourens, Faculty of Civil Engineering and Geosciences of TU Delft
- Professor Yuri Bazilevs, Department of Structural Engineering, University of California, San Diego
- Associate Professor Anders Brandt, Institute for Technology and Innovation, University of Southern Denmark
- Professor Steen Krenk, Technical University of Denmark
- Professor Claudio Mannini, University of Florence
- Professor Yaojun Ge, Department of Bridge Engineering, Tongji University

- Professor Fuyou Xu Faculty of Infrastructure Engineering, Dalian University of Technology
- Professor John Owen, Faculty of Engineering, University of Nottingham
- Professor Felix Nieto, University of A Coruña, Spain
- Professor Boštjan Brank, Faculty of Civil and Geodetic Engineering University of Ljubljana
- Professor Vincent Denöel, Department of architecture, geology, environment & constructions University of Liège

INDUSTRY COOPERATION

- Norwegian Public Roads Administrations (Statens vegvesen)
- Norconsult
- Multiconsult
- Bane NOR
- Norwegian Railway Directorate (Jernbane direktoratet)
- Aas-jakobsen

COMMISSIONS OF TRUST

- Board member NTNU MSc study program in Civil and Environmental Engineering
- Session chair at the European and African Conference on Wind Engineering, Liege 2017
- Administrator of the PhD evaluation committee. Marit Reiso NTNU 2013
- Administrator of the PhD evaluation committee. Arnkjell Løkke NTNU 2018
- Administrator of the PhD evaluation committee. Kristoffer Skjolden Skau NTNU 2018
- First opponent of the PhD evaluation committee. Randi Nøhr Møller, DTU 2019
- Chair and co-organizer of the session researcher meet researcher, Seminar on multi-purpose floating structures. Participants from National University of Singapore, Sintef and NTNU 2017
- Evaluation of research proposal for Research Grants Council (RGC) of Hong Kong
- Reviewer for international journals: Wind and Structures, Engineering, Journal of Structural Engineering, Engineering Structures, Journal of Fluids and Structures, Structures and Buildings, Finite Elements in Analysis and Design, Sensors.
- Educational coordinator for the study program in Civil and Environmental Engineering.
- Member of IABSE working group 10. Super-long span bridge aerodynamics

AWARDS

2007 Best master thesis in civil and environmental engineering award

2017 Best Journal Paper in Analysis & Computation; Journal of Structural Engineering.

Fenerci Aksel; Øiseth Ole. Measured buffeting response of a long-span suspension bridge compared with numerical predictions based on design wind spectra. *Journal of Structural Engineering* (2017).

JOURNAL PUBLICATIONS

Lystad, Tor Martin; Fenerci, Aksel; Øiseth, Ole Andre (2020) Buffeting response of long-span bridges considering uncertain turbulence parameters using the environmental contour method. Engineering structures

Petersen, Øyvind Wiig; Øiseth, Ole Andre; Lourens, Eliz-Mari (2020) Investigation of dynamic wind loads on a long-span suspension bridge identified from measured acceleration data. Journal of Wind Engineering and Industrial Aerodynamics

Viuff, Thomas Hansen; Xiang, Xu; Øiseth, Ole Andre; Leira, Bernt Johan (2020) Model uncertainty assessment for wave- and current-induced global response of a curved floating pontoon bridge. Applied Ocean Research

Xu, Yuwang; Fenerci, Aksel; Øiseth, Ole Andre; Moan, Torgeir (2020) Efficient prediction of wind and wave induced long-term extreme load effects of floating suspension bridges using artificial neural networks and support vector machines. Ocean Engineering

Zhang, Mingjie; Xu, Fuyou; Øiseth, Ole Andre (2020) Aerodynamic damping models for vortex-induced vibration of a rectangular 4: 1 cylinder: Comparison of modeling schemes. Journal of Wind Engineering and Industrial Aerodynamics. - NTNU

Papinutti Mitja, Četina Matjaž, Brank Boštjan, Petersen Øyvind and Øiseth Ole (2020) Nonparametric modeling of self-excited forces based on relations between flutter derivatives Wind and Structures Volume 31.

Diana, Giorgio; Stoyanoff, Stoyan; Aas-Jakobsen, Ketil; Allsop, Andrew; Andersen, Michael; Argentini, Tommaso; Montoya, Miguel Cid; Hernandez, Santiago; Jurado, Jose Angel; Katsuchi, Hiroshi; Kavrakov, Igor; Kim, Ho-Kyung; Larose, Guy; Larsen, Allan; Morgenthal, Guido; Øiseth, Ole Andre; Omarini, Simone; Rocchi, Daniele; Svendsen, Martin; Wu, Teng. (2019) IABSE Task Group 3.1 Benchmark Results. Part 2: Numerical Analysis of a Three-Degree-of-Freedom Bridge Deck Section Based on Experimental Aerodynamics. Structural Engineering International.

Helgedagsrud, Tore Andreas; Akkerman, Ido; Bazilevs, Yuri; Mathisen, Kjell Magne; Øiseth, Ole. (2019) Isogeometric Modeling and Experimental Investigation of Moving-Domain Bridge Aerodynamics. Journal of engineering mechanics. vol. 145 (5).

Helgedagsrud, Tore Andreas; Bazilevs, Yuri; Korobenko, Artem; Mathisen, Kjell Magne; Øiseth, Ole. (2019) Using ALE-VMS to compute aerodynamic derivatives of bridge sections. Computers & Fluids. vol. 179.

Helgedagsrud, Tore Andreas; Bazilevs, Yuri; Mathisen, Kjell Magne; Yan, Jinhui; Øiseth, Ole. (2019) Modeling and Simulation of Bridge-Section Buffeting Response in Turbulent Flow. Mathematical Models and Methods in Applied Sciences. vol. 29 (5).

Helgedagsrud, Tore Andreas; Bazilevs, Yuri; Mathisen, Kjell Magne; Øiseth, Ole. (2019) ALE-VMS methods for wind-resistant design of long-span bridges. Journal of Wind Engineering and Industrial Aerodynamics. vol. 191.

Helgedagsrud, Tore Andreas; Bazilevs, Yuri; Mathisen, Kjell Magne; Øiseth, Ole. (2019) Computational and experimental investigation of free vibration and flutter of bridge decks. Computational Mechanics. vol. 63 (1).

Kvåle, Knut Andreas; Øiseth, Ole; Rønnquist, Anders. (2019) Experiences from the five-year monitoring of a long-span pontoon bridge: What went right, what went wrong and what?s next?. Conference Proceedings of the Society for Experimental Mechanics Series.

Petersen, Øyvind Wiig; Øiseth, Ole Andre; Lourens, Eliz-Mari. (2019) The use of inverse methods for response estimation of long-span suspension bridges with uncertain wind loading conditions: Practical implementation and results for the Hardanger Bridge. Journal of Civil Structural Health Monitoring (JCSHM). vol. 9 (1).

Petersen, Øyvind Wiig; Øiseth, Ole; Lourens, Eliz-Mari. (2019) Full-scale identification of the wave forces exerted on a floating bridge using inverse methods and directional wave spectrum estimation. Mechanical systems and signal processing. vol. 120.

Siedziako, Bartosz; Øiseth, Ole. (2019) Superposition principle in bridge aerodynamics: Modelling of self-excited forces for bridge decks in random vibrations. Engineering structures. vol. 179.

Viuff, Thomas; Leira, Bernt Johan; Xiang, Xu; Øiseth, Ole. (2019) Effects of wave directionality on extreme response for a long end-anchored floating bridge. Applied Ocean Research. vol. 90.

Zasso, A; Argentini, T; Omarini, S; Rocchi, D; Øiseth, Ole Andre. (2019) Peculiar aerodynamic advantages and problems of twin-box girder decks for long span crossings. Bridge Structures - Assessment, Design and Construction. vol. 15 (3).

Andersen, Michael Styrk; Øiseth, Ole; Johansson, Jens; Brandt, Anders. (2018) Flutter derivatives from free decay tests of a rectangular B/D=10 section estimated by optimized system identification methods. Engineering structures. vol. 156.

Cantero, Daniel; Øiseth, Ole; Rønnquist, Anders. (2018) Indirect monitoring of vortex-induced vibration of suspension bridge hangers. Structural Health Monitoring. vol. 17 (4).

Fenerci, Aksel; Øiseth, Ole. (2018) Site-specific data-driven probabilistic wind field modeling for the wind-induced response prediction of cable-supported bridges. Journal of Wind Engineering and Industrial Aerodynamics. vol. 181.

Fenerci, Aksel; Øiseth, Ole. (2018) Strong wind characteristics and dynamic response of a long-span suspension 1 bridge during a storm. Journal of Wind Engineering and Industrial Aerodynamics. vol. 172.

Giske, Finn-Idar Grøtta; Kvåle, Knut Andreas; Leira, Bernt Johan; Øiseth, Ole. (2018) Long-term extreme response analysis of a long-span pontoon bridge. Marine Structures. vol. 58.

Lystad, Tor Martin; Fenerci, Aksel; Øiseth, Ole. (2018) Evaluation of mast measurements and wind tunnel terrain models to describe spatially variable wind field characteristics for long-span bridge design. Journal of Wind Engineering and Industrial Aerodynamics. vol. 179.

Petersen, Øyvind Wiig; Øiseth, Ole; Nord, Torodd Skjerve; Lourens, Eliz-Mari. (2018) Estimation of the full-field dynamic response of a floating bridge using Kalman-type filtering algorithms. Mechanical systems and signal processing. vol. 107.

Siedziako, Bartosz; Øiseth, Ole. (2018) An enhanced identification procedure to determine the rational functions and aerodynamic derivatives of bridge decks. Journal of Wind Engineering and Industrial Aerodynamics. vol. 176.

Siedziako, Bartosz; Øiseth, Ole. (2018) Modeling of self-excited forces during multimode flutter: An experimental study. Wind and Structures. vol. 27 (5).

Xu, Yuwang; Øiseth, Ole; Moan, Torgeir. (2018) Time domain simulations of wind- and wave-induced load effects on a three-span suspension bridge with two floating pylons. Marine Structures. vol. 58.

Xu, Yuwang; Øiseth, Ole; Moan, Torgeir; Næss, Arvid. (2018) Prediction of long-term extreme load effects due to wave and wind actions for cable-supported bridges with floating pylons. Engineering structures. vol. 172.

Fenerci, Aksel; Øiseth, Ole. (2017) Measured Buffeting Response of a Long-Span Suspension Bridge Compared with Numerical Predictions Based on Design Wind Spectra. Journal of Structural Engineering. vol. 143 (9).

Fenerci, Aksel; Øiseth, Ole. (2017) The Hardanger Bridge monitoring project: Long-term monitoring results and implications on bridge design. Procedia Engineering. vol. 199.

Fenerci, Aksel; Øiseth, Ole; Rønnquist, Anders. (2017) Long-term monitoring of wind field characteristics and dynamic response of a long-span suspension bridge in complex terrain. Engineering structures. vol. 147.

Frøseth, Gunnstein Thomas; Rønnquist, Anders; Cantero, Daniel; Øiseth, Ole. (2017) Influence line extraction by deconvolution in the frequency domain. Computers & structures. vol. 189.

Giske, Finn-Idar Grøtta; Leira, Bernt Johan; Øiseth, Ole. (2017) Efficient computation of cross-spectral densities in the stochastic modelling of waves and wave loads. Applied Ocean Research. vol. 62.

Giske, Finn-Idar Grøtta; Leira, Bernt Johan; Øiseth, Ole. (2017) Full long-term extreme response analysis of marine structures using inverse FORM. Probabilistic Engineering Mechanics. vol. 50.

Giske, Finn-Idar Grøtta; Leira, Bernt Johan; Øiseth, Ole. (2017) Long-term stochastic extreme response analysis of floating bridges. Procedia Engineering. vol. 199.

Kvåle, Knut Andreas; Øiseth, Ole. (2017) Structural monitoring of an end-supported pontoon bridge. Marine Structures. vol. 52.

Kvåle, Knut Andreas; Øiseth, Ole; Rønnquist, Anders. (2017) Covariance-driven stochastic subspace identification of an end-supported pontoon bridge under varying environmental conditions. Conference Proceedings of the Society for Experimental Mechanics Series. vol. 2 Part F2.

Kvåle, Knut Andreas; Øiseth, Ole; Rønnquist, Anders. (2017) Operational modal analysis of an end-supported pontoon bridge. Engineering structures. vol. 148.

Petersen, Øyvind Wiig; Øiseth, Ole. (2017) Sensitivity-based finite element model updating of a pontoon bridge. Engineering structures. vol. 150.

Petersen, Øyvind Wiig; Øiseth, Ole; Lourens, Eliz-Mari. (2017) Estimation of the dynamic response of a slender suspension bridge using measured acceleration data. Procedia Engineering. vol. 199.

Siedziako, Bartosz; Øiseth, Ole. (2017) On the importance of cross-sectional details in the wind tunnel testing of bridge deck section models. Procedia Engineering. vol. 199.

Siedziako, Bartosz; Øiseth, Ole; Rønnquist, Anders. (2017) An enhanced forced vibration rig for wind tunnel testing of bridge deck section models in arbitrary motion. Journal of Wind Engineering and Industrial Aerodynamics. vol. 164.

Xu, Yuwang; Øiseth, Ole; Næss, Arvid; Moan, Torgeir. (2017) Prediction of long-term extreme load effects due to wind for cable-supported bridges using time-domain simulations. Engineering structures. vol. 148.

Fenerci, Aksel; Øiseth, Ole Andre. (2016) Full-Scale measurements on the hardanger bridge during strong winds. Conference Proceedings of the Society for Experimental Mechanics Series. vol. 2.

Frøseth, Gunnstein Thomas; Rønnquist, Anders; Øiseth, Ole. (2016) Operational modal analysis and model updating of Riveted steel bridge. Conference Proceedings of the Society for Experimental Mechanics Series. vol. 2.

Kvåle, Knut Andreas; Sigbjørnsson, Ragnar; Øiseth, Ole. (2016) Modelling the stochastic dynamic behaviour of a pontoon bridge: A case study. Computers & structures. vol. 165.

Nord, Torodd Skjerve; Øiseth, Ole; Lourens, Eliz-Mari. (2016) Ice force identification on the Nordströmsgrund lighthouse. Computers & structures. vol. 169.

Petersen, Øyvind Wiig; Øiseth, Ole; Nord, Torodd Skjerve; Lourens, Eliz-Mari. (2016) Model-based estimation of hydrodynamic forces on the Bergsoysund bridge. Conference Proceedings of the Society for Experimental Mechanics Series. vol. 2.

Siedziako, Bartosz; Øiseth, Ole; Rønnquist, Anders. (2016) Identification of aerodynamic properties of bridge decks in arbitrary motion. Conference Proceedings of the Society for Experimental Mechanics Series. vol. 6.

Kvåle, Knut Andreas; Øiseth, Ole; Rønnquist, Anders; Sigbjörnsson, Ragnar. (2015) Modal analysis of a floating bridgewithout side-mooring. Conference Proceedings of the Society for Experimental Mechanics Series. vol. 2.

Nord, Torodd Skjerve; Lourens, Eliz-Mari; Maattanen, Mauri Pellervo; Øiseth, Ole; Høyland, Knut Vilhelm. (2015) Laboratory experiments to study ice-induced vibrations of scaled model structures during their interaction with level ice at different ice velocities. Cold Regions Science and Technology. vol. 119.

Nord, Torodd Skjerve; Lourens, Eliz-Mari; Øiseth, Ole; Metrikine, Andrei. (2015) Model-based force and state estimation in experimental ice-induced vibrations by means of Kalman filtering. Cold Regions Science and Technology. vol. 111.

Nord, Torodd Skjerve; Øiseth, Ole; Petersen, Øyvind Wiig; Lourens, Eliz-Mari. (2015) Sensor network for dynamic ice-force identification: the Hanko-1 channel marker case study. Proceedings - International Conference on Port and Ocean Engineering under Arctic Conditions. vol. 2015-January.

Takizawa, K; Bazilevs, Y; Tezduyar, TE; Hsu, M-C; Øiseth, Ole; Mathisen, Kjell Magne; Kostov, N; McIntyre, S. (2014) Engineering Analysis and Design with ALE-VMS and Space-Time Methods. Archives of Computational Methods in Engineering. vol. 21 (4).

Øiseth, Ole; Rønnquist, Anders; Sigbjörnsson, Ragnar. (2013) Effects of co-spectral densities of atmospheric turbulence on the dynamic response of cable-supported bridges: A case study. Journal of Wind Engineering and Industrial Aerodynamics. vol. 116.

Øiseth, Ole; Rønnquist, Anders; Sigbjörnsson, Ragnar. (2012) Finite element formulation of the self-excited forces for time-domain assessment of wind-induced dynamic response and flutter stability limit of cable-supported bridges. Finite elements in analysis and design (Print). vol. 50 (1).

Øiseth, Ole; Rønnquist, Anders; Sigbjörnsson, Ragnar. (2011) Time domain modeling of self-excited aerodynamic forces for cable-supported bridges: A comparative study. Computers & structures. vol. 89 (13-14).

Øiseth, Ole; Sigbjörnsson, Ragnar. (2011) An alternative analytical approach to prediction of flutter stability limits of cable supported bridges. Journal of Sound and Vibration. vol. 330 (12).

Øiseth, Ole; Rønnquist, Anders; Sigbjörnsson, Ragnar. (2010) Simplified prediction of wind-induced response and stability limit of slender long-span suspension bridges,based on modified quasi-steady theory:A case study. Journal of Wind Engineering and Industrial Aerodynamics. vol. 98 (12). Øiseth Ole; Rønnquist Anders; Sigbjörnsson Ragnar. Time domain modeling of self-excited aerodynamic forces for cable-supported bridges: A comparative study. *Computers and Structures*. (2011)

Øiseth Ole; Rønnquist Anders; Sigbjörnsson Ragnar. Simplified prediction of wind-induced response and stability limit of slender long-span suspension bridges, based on modified quasi-steady theory: A case study. *Journal of Wind Engineering and Industrial Aerodynamics*. (2010)

CONFERENCE PUBLICATIONS

Fenerci, Aksel; Xu, Yuwang; Øiseth, Ole Andre. (2019) Numerical studies on the dynamic behavior of a super long curved pontoon bridge under wind and wave actions. Proceedings of the 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2019).

Fenerci, Aksel; Øiseth, Ole Andre. (2019) Wind Field Variability in Complex Terrain: Lessons from the Hardanger Bridge. I: Proceedings of the XV Conference of the Italian Association for Wind Engineering.

Lystad, Tor Martin; Fenerci, Aksel; Øiseth, Ole Andre. (2019) Aerodynamic Effect of Non-uniform Wind Profiles for Long-Span Bridges. I: Proceedings of the XV Conference of the Italian Association for Wind Engineering. Springer 2019 ISBN 978-3-030-12815-9. s. 427-439
NTNU

Petersen, Øyvind Wiig; Øiseth, Ole Andre; Nord, Torodd Skjerve; Lourens, Eliz-Mari. (2019) Inverse identification of buffeting and self-excited wind loads on the {Hardanger} bridge from acceleration data. I: Proceedings of the 7th International Conference on Computational Methods in Structural Dynamics and Earthquake Engineering (COMPDYN 2019). European Community on Computional Methods in Applied Sciences (ECCOMAS) 2019 ISBN 978-618-82844-5-6. s. 4421-4433 NTNU

Cantero, Daniel; Øiseth, Ole; Rønnquist, Anders. (2018) Time-frequency analysis of suspension bridge response for identification of vortex induced vibrations. I: Experimental Vibration Analysis for Civil Structures. EVACES 2017. Springer 2018 ISBN 978-3-319-67442-1. s. 667-678 NTNU

Fenerci, Aksel; Øiseth, Ole. (2018) Full-Scale Measurement and Analysis of Wind-Induced Vibrations of a Longs-Span Suspension Bridge in Complex Terrain. I: Earthquake

Engineering and Structural Dynamics in Memory of Ragnar Sigbjörnsson. Springer 2018 ISBN 978-3-319-62099-2. s. 256-276 NTNU

Helgedagsrud, Tore Andreas; Bazilevs, Yuri; Mathisen, Kjell Magne; Øiseth, Ole. (2018) Using isogeometric analysis of turbulent flows on moving domains to assess the flutter stability limit on long-span suspension bridges. 7th European Conference on Computational Fluid Dynamics; 2018-06-11 - 2018-06-15 NTNU

Kvåle, Knut Andreas; Øiseth, Ole. (2018) Characterization of the Wave Field Around an Existing End-Supported Pontoon Bridge from Simulated Data. I: Proceedings of the International Conference on Earthquake Engineering and Structural Dynamics. Springer 2018 ISBN 978-3-319-78187-7. s. 345-359 NTNU

Kvåle, Knut Andreas; Øiseth, Ole; Rønnquist, Anders; Remseth, Svein N. (2018) Simulation and monitoring of floating bridge behaviour. I: Earthquake Engineering and Structural Dynamics in Memory of Ragnar Sigbjörnsson. Springer 2018 ISBN 978-3-319-62099-2. s. 277-296 NTNU

Petersen, Øyvind Wiig; Øiseth, Ole. (2018) Efficient time-domain modeling of floating structures with fluid-structure interaction by reduced-order state-space approximations. ISMA 2018, International Conference on Noise and Vibration Engineering; 2018-09-17 - 2018-09-19 NTNU

Petersen, Øyvind Wiig; Øiseth, Ole. (2018) Finite Element Model Updating of a Long Span Suspension Bridge. I: Proceedings of the International Conference on Earthquake Engineering and Structural Dynamics. Springer 2018 ISBN 978-3-319-78187-7. s. 335-344 NTNU

Petersen, Øyvind Wiig; Øiseth, Ole; Lourens, Eliz-Mari. (2018) Identification of wave forces on a floating bridge from acceleration and wave elevation data using inverse methods and wave field reconstruction. ISMA 2018, International Conference on Noise and Vibration Engineering; 2018-09-17 - 2018-09-19 NTNU

Siedziako, Bartosz; Øiseth, Ole. (2018) Identification of Rational Functions with a Forced Vibration Technique Using Random Motion Histories. I: Proceedings of the International Conference on Earthquake Engineering and Structural Dynamics. Springer 2018 ISBN 978-3-319-78187-7. s. 361-372 NTNU

Viuff, Thomas; Xiang, Xu; Leira, Bernt Johan; Øiseth, Ole. (2018) Code-to-Code Verification of End-Anchored Floating Bridge Global Analysis. I: ASME 2018 37th International Conference on Ocean, Offshore and Arctic Engineering - Volume 11A: Honoring Symposium for Professor Carlos Guedes Soares on Marine Technology and Ocean Engineering. ASME Press 2018 ISBN 978-0-7918-5132-6. s. -NTNU

Xiang, Xu; Viuff, Thomas; Leira, Bernt Johan; Øiseth, Ole. (2018) Impact of Hydrodynamic Interaction Between Pontoons on Global Responses of a Long Floating Bridge Under Wind Waves. I: ASME 2018 37th International Conference on Ocean, Offshore and Arctic Engineering, Madrid, Spain, June 17–22, 2018 - Volume 7A: Ocean Engineering. ASME Press 2018 ISBN 978-0-7918-5126-5. s. -NTNU

Petersen, Øyvind W.; Øiseth, Ole; Lourens, Eliz-Mari. (2017) On of the dynamic response in a slender suspension bridge using measured acceleration data. In Proceedings of the X International conference on structural dynamics, Eurodyn; Rome

Giske, Finn-Idar; Leira, Bernt J.; Øiseth, Ole. (2017) Long-term stochastic extreme response analysis of floating bridges. In Proceedings of the X International conference on structural dynamics, Eurodyn; Rome

Fenerci, Aksel; Øiseth, Ole. (2017) The Hardanger Bridge monitoring project: Long-term monitoring results and implications on bridge design. In Proceedings of the X International conference on structural dynamics, Eurodyn; Rome

Siedziako, Bartosz; Øiseth, Ole. (2017) On the importance of cross-sectional details in the wind tunnel testing of bridge deck section models. In Proceedings of the X International conference on structural dynamics, Eurodyn; Rome

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