Jacob Wittrup Schmidt - DTU Orbit (01/10/2018)

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Department of Civil Engineering - Associate Professor

Structures and Safety

Publications:

**High Magnitude Loading of Concrete Bridges**
Publication: Research - peer-review › Book chapter – Annual report year: 2018

**Strengthening of RC beams using bottom and side NSM reinforcement**
Sabau, C., Popescu, C., Sas, G., Schmidt, J. W., Blanksvård, T. & Täljsten, B. 2018 In : Composites Part B: Engineering. 149, p. 82-91
Publication: Research - peer-review › Journal article – Annual report year: 2018

**Vejdirektoratet gennemfører bæreevneforsøg på broer**
Publication: Communication › Journal article – Annual report year: 2018

**Assessment of RC walls with cut-out openings strengthened by FRP composites using a rigid-plastic approach**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Electrochemical upgrading of different ashes for use in production of bricks**
Publication: Research › Ph.D. thesis – Annual report year: 2017

**Full-scale load tests of Pearl-Chain arches**
Publication: Research - peer-review › Journal article – Annual report year: 2017

**Hybrid Simulation of Composite Structures**
Publication: Research › Ph.D. thesis – Annual report year: 2017

**Project families: A new concept for student thesis activities**
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2017

**Structural response of full-scale concrete bridges subjected to high load magnitudes**
Halding, P. S., Schmidt, J. W., Jensen, T. W. & Henriksen, A. 2017
Publication: Research - peer-review › Paper – Annual report year: 2017

**A reinforcement system and a method of reinforcing a structure with a tendon**
Publication: Research › Patent – Annual report year: 2016
CFRP strengthening of RC beams using a ductile anchorage system
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Construction and Design of Post-Tensioned Pearl-Chain Bridges using SL-Technology
Publication: Research › Ph.D. thesis – Annual report year: 2016

Recycled fishing nets as reinforcement of existing concrete structures
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

Cost optimization of load carrying thin-walled precast high performance concrete sandwich panels
Publication: Research - peer-review › Journal article – Annual report year: 2015

Experimental investigations of sandwich panels using high performance concrete thin plates exposed to fire
Publication: Research - peer-review › Journal article – Annual report year: 2015

Experimental Studies on the Fire Behaviour of High Performance Concrete Thin Plates
Publication: Research - peer-review › Journal article – Annual report year: 2015

Influence of Basalt FRP Mesh Reinforcement on High-Performance Concrete Thin Plates at High Temperatures
Publication: Research - peer-review › Journal article – Annual report year: 2015

Precast Pearl-Chain concrete arch bridges
Publication: Research - peer-review › Journal article – Annual report year: 2015

Quasi-Static Single-Component Hybrid Simulation of a Composite Structure with Multi-Axis Control
Publication: Research - peer-review › Journal article – Annual report year: 2015

Sandwich panels with high performance concrete thin plates at elevated temperatures: numerical studies
Hulin, T., Hodicky, K., Schmidt, J. W. & Stang, H. 2015 In : Materials and Structures. 49, 8, p. 3177-3193
Publication: Research - peer-review › Journal article – Annual report year: 2015

A comparative study on electrodialytically treated bio-ash and MSWI APC-residue for use in bricks
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

A comparative study on electrodialytic treated bio-ash and MSWI-APC residue for use in bricks
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014
Concrete Hinges
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Electrodialytic removal of heavy metals from fly ash from co-combustion of wood and straw – influence from prewash
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Novel shear capacity testing of ASR damaged full scale concrete bridge
Publication: Research - peer-review › Journal article – Annual report year: 2014

Optimization process for thin-walled high performance concrete sandwich panels
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Strain and displacement controls by fibre bragg grating and digital image correlation
Publication: Research - peer-review › Journal article – Annual report year: 2014

Super-light and pearl-chain technology for support of ancient structures
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Wedge Splitting Test and Inverse Analysis on Fracture Behaviour of Fiber Reinforced and Regular High Performance Concretes
Publication: Research - peer-review › Journal article – Annual report year: 2014

ZeroWaste BYG: Redesigning construction materials towards zero waste society
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

A model for spalling of HPC thin plates exposed to fire
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Assessment risk of fracture in thin-walled fiber reinforced and regular High Performance Concretes sandwich elements
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Finite element simulation and testing of ISW CFRP anchorage
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013
Fire performance of basalt FRP mesh reinforced HPC thin plates
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Hybrid Testing of Composite Structures with Single-Axis Control
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Kulfiber giver gamle broer nyt liv
Schmidt, J. W. & Hansen, C. S. 2013 In : D T U Avisen. 1
Publication: Communication › Journal article – Annual report year: 2013

Life cycle strain monitoring in glass fibre reinforced polymer laminates using embedded fibre Bragg grating sensors from manufacturing to failure
Publication: Research - peer-review › Journal article – Annual report year: 2013

Optimization process for thin-walled High Performance Concrete sandwich panels
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Prøvebelastning af AKR-skadet vejbro
Henriksen, A., Schmidt, J. W. & Engelund, S. 2013 In : Trafik & Veje. 3
Publication: Communication › Journal article – Annual report year: 2013

Static strain and deformation controlled testing of composite beams
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2013

Structural performance of new thin-walled concrete sandwich panel system reinforced with bfrp shear connectors
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Transversely Compressed- and Restrained Shear Joints
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Wedge Splitting Test on Fracture Behaviour of Fiber Reinforced and Regular High Performance Concretes
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

External post-tensioning of cfrp tendons using integrated sleeve-wedge anchorage
Publication: Research - peer-review › Article in proceedings – Annual report year: 2012

In situ measurement using FBGs of process-induced strains during curing of thick glass/epoxy laminate plate: experimental results and numerical modelling
EXTERNAL PRESTRESSING OF RC T-BEAMS WITH CFRP TENDONS
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Failure modes of prestressed CFRP rods in a wedge anchored set-up
Publication: Research - peer-review › Article in proceedings – Annual report year: 2009

Strain Measurement Using Embedded Fiber Bragg Grating Sensors Inside an Anchored Carbon Fiber Polymer Reinforcement Prestressing Rod for Structural Monitoring
Publication: Research - peer-review › Journal article – Annual report year: 2009

Strengthening of old metallic structures in fatigue with prestressed and non-prestressed CFRP laminates
Publication: Research - peer-review › Journal article – Annual report year: 2009

FRP tendon anchorage in post-tensioned concrete structures
Publication: Research - peer-review › Article in proceedings – Annual report year: 2008

Strengthening of old metallic structures in fatigue with CFRP materials
Publication: Research - peer-review › Article in proceedings – Annual report year: 2007

Projects:

Decision support for the efficient reclassification of bridges
Kapoor, M., Thøns, S., Engelund, S., Schmidt, J. W. & Sørensen, J. D. 01/09/2018 → 31/08/2021
Project: PhD

Monitoring thresholds- and output assessment related to in-situ full-scale concrete bridge testing
Christensen, C. O., Schmidt, J. W., Goltermann, P., Lantsoght, E., Thøns, S. & Waldbjørn, J. P. 01/06/2018 → 31/05/2021
Project: PhD

Modelling of the load carrying capacity of concrete bridges in conjunction with in-situ monitoring
Jensen, T. W., Poulsen, P. N., Hoang, L. C. & Schmidt, J. W. 01/06/2016 → 31/05/2019
Project: PhD

Bridge Load Testing
Halding, P. S., Schmidt, J. W., Christensen, C. O., Jensen, T. W., Bang, R., Engelund, S., Kristensen, J. & Hieronymussen Henriksen, A. 01/05/2016 → …
Project

Circular Ocean
Bertelsen, I. M. G., Ottosen, L. M., Belmonte, L. J. & Schmidt, J. W. 01/10/2015 → 15/02/2019
Structural Health Monitoring Systems Design
Brüske, H., Thøns, S., Schmidt, J. W., Lu, D. & Sørensen, J. D.
01/11/2014 → 31/01/2018
Project: PhD

Construction of Pearl-Chain Bridges
01/02/2013 → 04/07/2016
Project: PhD

Electrochemical upgrading of different fly ases for use in production of bricks and lightweight aggregates
15/12/2012 → 07/09/2017
Project: PhD

Hybrid testing for composite structures
01/04/2012 → 30/09/2016
Project: PhD

Hybrid Testing of Wind Turbine Blades
01/12/2011 → 04/07/2016
Project: PhD

Advanced Sandwich Elements for Sustainable Buildings - Integrated Structural and Materials Modelling
Hulin, T., Stang, H., Schmidt, J. W., Hertz, K. D., Fontana, M. & Jirásek, M.
15/08/2011 → 30/10/2015
Project: PhD

Analysis and development of Advanced Sandwich Elements for Sustainable Buildings
Hodicky, K., Stang, H., Schmidt, J. W., Fischer, G., Nielsen, C. V. & Seracino, R.
01/07/2011 → 30/09/2015
Project: PhD

External Strengthening of Building Structures with Prestressed CFRP
01/11/2007 → 02/03/2011
Project: PhD

Prizes:

Annual DTU Award for developing Teaching and Learning
Jens Henrik Nielsen (Recipient), Per Goltermann (Recipient), Lisbeth M. Ottosen (Recipient), Jacob Wittrup Schmidt (Recipient), Pernille Erland Jensen (Recipient), Gunvor Marie Kinkelund (Recipient) & John Forbes Olesen (Recipient), 2017
Prize: Prizes, scholarships, distinctions