LCA Publication List

December 2012

Licentiate thesis

Du Guangli, Towards sustainable construction: Life cycle assessment of railway bridges, Licentiate thesis 112, *Division of Structural Engineering and Bridges, KTH architecture and the built environment,* Stockholm 2012.

Journal papers

Thiebault Vincent, Du Guangli, Karoumi Raid, Design of railway bridges considering LCA, *accepted for publish by the journal of ICE Bridge Engineering, 2012.*

Du Guangli, Karoumi Raid, LCA of Railway Bridge: a comparison between two superstructure designs, *published by the Journal of Structure and Infrastructure Engineering,* DOI:10.1080/15732479.2012.670250, 29th March, 2012.

Du Guangli, Karoumi Raid, Life cycle assessment framework for railway bridges: a literature survey and critical issues, *published by the Journal of Structure and Infrastructure Engineering, D*OI:10.1080/15732479.2012.749289, 14th Dec, 2012.

Mohammed Safi, Guangli Du, Raid Karoumi and Håkan Sundquist, Holistic Life-Cycle Approach for Sustainable Bridge Procurement- Case Study of the KARLSNÄS Bridge in Sweden, to be submitted by February 2013, *Structure and Infrastructure Engineering Journal*, 2013.

Conference paper

Du Guangli, A Literature review of life cycle assessment for bridge infrastructure*, COST Action C25: Sustainability of Constructions: An Integrated Approach to Life-time Structural Engineering, Malta, 2010.*

Du Guangli, Life cycle assessment for railway bridge infrastructure: a case study of Bollstaån Bridge, *COST Action C25: Proceedings of the international conference sustainability of constructions-towards a better built Environment. Innsbruck, Austria, 2011.*

Rossi, Barbara, Lukic Ivan, Iqbal Naveed, Du Guangli, Cregg Diarmuid, Borg Ruben Paul, Haleer Peer, Life cycle impacts assessment of steel, composite, concrete and wooden columns, *COST Action C25: Proceedings of the international conference sustainability of constructions-towards a better built Environment. Innsbruck, Austria, 2011.*

Du Guangli, Karoumi Raid, Environmental comparison of two bridge alternative designs, fib symposium Stockholm, pp.353-356, Concrete Structure for Sustainable Community, 2012.

Du Guangli, Karoumi Raid, Environmental life cycle assessment between two bridge types: reinforced concrete bridge and steel composite bridge, submitted to the *International Conference on Sustainable Construction Materials & Technologies (SCMT3),* 18th -21st August 2013, Kyoto, Japan.

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Vincent Thiebault, Design of railway bridges considering LCA, Master thesis 305, *Division of Structural Engineering and Bridges, KTH architecture and the built environment,* Stockholm, Sweden 2010.

Maxime Boulenger, Life cycle assessment of concrete structures using public databases: Comparison of a fictitious bridge and tunnel, Master thesis 322, *Division of Structural Engineering and Bridges, KTH architecture and the built environment,* Stockholm, Sweden 2011.

Lorea García San Martín, Life cycle assessment of railway bridges: developing LCA tool for evaluating railway bridges, Master thesis 323, *Division of Structural Engineering and Bridges, KTH architecture and the built environment,* Stockholm, Sweden 2011.

LCC Publication List

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Licentiate thesis

Mohammed Safi, LCC Applications for Bridges & Integration with BMS, Licentiate thesis, *KTH-Division of Structural Engineering and Bridges,* TRITA-BKN. Bulletin 111, Stockholm 2012.

Journal papers

1) Mohammed Safi, Håkan Sundquist, Raid Karoumi and George Racutanu*,* Development of the Swedish Bridge & Tunnel Management System by Upgrading & Expanding the use of LCC, Published-*Structure and Infrastructure Engineering Journal, UK 2012.*

2) Mohammed Safi, Håkan Sundquist, Raid Karoumi and George Racutanu, Life-Cycle Cost Analysis Applications for bridges and Integration with Bridge Management Systems, Case-Study of the Swedish Bridge & Tunnel Management System (BaTMan), Published-*Transportation Research Record (TRR)- Journal of Transportation Research Board, USA 2012.*

3) Mohammed Safi, Håkan Sundquist and George Racutanu*,* Life-Cycle Costing Integration with Bridge Management Systems, Submitted to the *ICE-Bridge Engineering Journal, UK 2012.*

4) Mohammed Safi, Raid Karoumi and Håkan Sundquist, Implementation of Life-Cycle Cost Analysis for Bridge Investment, *Submitted- The American Society for Civil Engineering ASCE-Bridge Engineering Journal.* USA 2012.

5) Mohammed Safi, Guangli Du, Raid Karoumi and Håkan Sundquist, Holistic Life-Cycle Approach for Sustainable Bridge Procurement- Case Study of the KARLSNÄS Bridge in Sweden, to be submitted by February 2013, *Structure and Infrastructure Engineering Journal, UK 2013.*

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1) Mohammed Safi, Håkan Sundquist, Raid Karoumi and George Racutanu, Life-Cycle Costing Applications for bridges and Integration with Bridge Management Systems, Case-Study of the Swedish Bridge & Tunnel Management System (BaTMan*),* Accepted for publication in the *Transportation Research Board's 91 Annual meeting (TRB) , 2012.*

2) Mohammed Safi, Håkan Sundquist, Raid Karoumi and George Racutanu, Bridge Management System with an Integrated LCC Tool, *fib Symposium Stockholm 2012 Conference,* Accepted abstract and to be fully uploaded before January 15, 2012.

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3) Mohammed Safi, Håkan Sundquist, Raid Karoumi and George Racutanu, Bridge Management System with an Overall Integrated LCC Tool, *18th IABSE Congress 2012, Seoul, Korea.* Accepted abstract and to be fully uploaded before February 28, 2012.

Developed Tools for Results Implementation

1) "BaTMan-LCC" Bridge Life-Cycle Optimization.

Practical & Technical Implementation Courses

1) Life-Cycle Cost Analysis (LCCA) Implementation for Bridge Investment, Investment Division- Swedish Transport Administration (Trafikverket), Pach No. (1): 8 Super-Users, November 2012 and December 2012.

Master Thesis

Mohammed Safi, Bridge Life Cycle Cost Optimization: Analysis, Evaluation & Implementation, Master thesis, Trita-BKN Master thesis, ISSN 1103-4297; 278, *KTH-Division of Structural Engineering and Bridges,* Stockholm-Sweden, 2009.

Presentations

1) Mohammed Safi, Life-Cycle Costing Applications for bridges and Integration with Bridge Management Systems, Case-Study of the Swedish Bridge & Tunnel Management System (BaTMan), *The Transportation Research Board's 91 Annual meeting (TRB) , Washington DC-USA, 24th January 2012.*

2) Mohammed Safi, LCC Applications for bridges & Integration with BMSs, *KTH Transport Day Conference,* Stockholm-Sweden, 30th November 2011.

3) Mohammed Safi & George Racutanu, BaTMan-LCC Overview & Implementation*, ETSI 3PSG Meeting,* Helsinki-Finland, 11th October 2011.

4) Mohammed Safi & George Racutanu, BaTMan-LCC Overview & Implementation*, The Finnish Transport Administration (FTA),* Helsinki-Finland, 10th October 2011.

5) Mohammed Safi & George Racutanu*,* Life-Cycle Costing Applications for Bridges*, The Swedish Transport Administration (Trafikverket),* Stockholm-Sweden, 22th December 2010.

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6) Mohammed Safi & George Racutanu, Life-Cycle Costing Applications for Bridges, *The Swedish Transport Administration (Trafikverket),* Eskilstuna-Sweden, 13th December 2010.

7) Mohammed Safi & George Racutanu, BaTMan-LCC Practical Examples and Results, *The Swedish Transport Administration (Trafikverket),* Jönköping-Sweden, 27th May 2011.

8) Mohammed Safi, Bridge Life Cycle Cost Optimization: Analysis, Evaluation & Implementation, *KTH-VTI & Trafikverket workshop meeting,* KTH, Stockholm-Sweden, 22nd April 2010.

9) Mohammed Safi & George Racutanu, Bridge Life Cycle Cost Optimization, *The Swedish Transport Administration (Trafikverket),* Stockholm-Sweden, 15th January 2010.

10) Mohammed Safi, Steps Toward The Achievement, *ETSI Project Stage 2 Closing Seminar,* Helsinki-Finland, November 2009.

11) Mohammed Safi, Bridge Life-Cycle Cost Analysis Implementation for Bridge Investment, Trafikverket Structural Engineering Day 2012.

Poster

1) Mohammed Safi, Bridge Life Cycle Cost Optimization, *KTH Transport Day Conference,* Stockholm-Sweden, 30th November 2011.

Supervised Master thesis

1) TAO ZHANG, Application of Life-Cycle-Cost methodology in bridge project: Estimate bridge LCC result by using computer tools, *KTH-Division of Structural Engineering and Bridges,* ISSN 1103-4297, TRITA-BKN. Master Thesis 303, Stockholm-Sweden 2010.

2) Azad Miro & Zaid Razooqi, Life cycle cost för broar, *Mälardalens högskolagskolan Eskilstuna Västerås, Akademin för hållbar samhälls-och teknikutveckling,* Eskilstuna-Sweden, June 2011.