Software Engineering - DTU Orbit (12/01/2018)

Software Engineering
Department of Applied Mathematics and Computer Science
Organisational unit: Section

Publications:

A Domain-Specific Language for Generic Interlocking Models and Their Properties
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

A Framework for Online Conformance Checking
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Algorithms and Tools for Petri Nets - Proceedings of the Workshop AWPN 2017
Publication: Research - peer-review › Report – Annual report year: 2017

Beyond Brainstorming: Exploring Convergence in Teams
Publication: Research - peer-review › Journal article – Annual report year: 2017

Blockchains for Business Process Management - Challenges and Opportunities
Publication: Research - peer-review › Journal article – Annual report year: 2017

Cheetah Experimental Platform Web 1.0: Cleaning Pupillary Data
Publication: Research - peer-review › Journal article – Annual report year: 2017

Compositional Model Checking of Interlocking Systems for Lines with Multiple Stations
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Compositional Verification of Interlocking Systems for Large Stations
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Convergence of Crowdsourcing Ideas: A Cognitive Load perspective
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Convergence on Self - Generated vs. Crowdsourced Ideas in Crisis Response: Comparing Social Exchange Processes and Satisfaction with Process
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017
Cost-effective evolution of research prototypes into end-user tools: The MACH case study
Publication: Research - peer-review › Journal article – Annual report year: 2015

Designing Visual Decision Making Support with the Help of Eye-tracking
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Detection and quantification of flow consistency in business process models
Publication: Research - peer-review › Journal article – Annual report year: 2017

Digitalising the General Data Protection Regulation with Dynamic Condition Response Graphs
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Domain Specific Language for Modeling Waste Management Systems
Publication: Research › Ph.D. thesis – Annual report year: 2017

Do we educate engineers that can engineer?
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Effect of Linked Rules on Business Process Model Understanding
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

ePNK Applications and Annotations
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Formal Development and Verification of Safe Railway Control Systems
Haxthausen, A. E. 2017
Publication: Research › Poster – Annual report year: 2017

Formal modelling and verification of interlocking systems featuring sequential release
Publication: Research - peer-review › Journal article – Annual report year: 2016

Lost in Time and Space: States of High Arousal Disrupt Implicit Acquisition of Spatial and Sequential Context Information
Publication: Research - peer-review › Journal article – Annual report year: 2017
Measuring and Explaining Cognitive Load During Design Activities: A fine-grained approach
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Model Checking Geographically Distributed Interlocking Systems Using UMC
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Online Conformance Checking for Petri Nets and Event Streams
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Smart Grid Communication Infrastructure Comparison
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Smart Grid Communication Middleware Comparison
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Smart Grid Communication middleware comparison distributed control comparison for the internet of things
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Smart Grid Serialization Comparison
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

The Choice Is Yours: The Role of Cognitive Processes for IT-Supported Idea Selection
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Visualization of the Evolution of Layout Metrics for Business Process Models
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

WoPeD - A "Proof-of-Concept" Platform for Experimental BPM Research Projects
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Algebraic Varieties and System Design
Publication: Research › Ph.D. thesis – Annual report year: 2017
On the Feasibility of a Unified Modelling and Programming Paradigm
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

On the impact of size to the understanding of UML diagrams
Publication: Research - peer-review › Journal article – Annual report year: 2016

On the significance of the noise model for the performance of a linear MPC in closed-loop operation
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Pragmatics annotated coloured petri nets for protocol software generation and verification
Publication: Research - peer-review › Book chapter – Annual report year: 2016

SaRDIn - A Safe Reconfigurable Distributed Interlocking
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

On the Use of Static Checking in the Verification of Interlocking Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Studying the Creation of Design Artifacts
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

The impact of working memory and the "process of process modelling" on model quality: Investigating experienced versus inexperienced modellers
Publication: Research - peer-review › Journal article – Annual report year: 2016

The innovation element of the diploma (b.eng.) programs at DTU
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

VMTL: a language for end-user model transformation
Publication: Research - peer-review › Journal article – Annual report year: 2016

An institution for object-z with inheritance and polymorphism
Baumeister, H., Bertaz, M., Maouche, M. & Mosteghanemi, M. 2015 Software, Services, and Systems: Essays Dedicated to Martin Wirsing on the Occasion of His Retirement from the Chair of Programming and Software Engineering. De Nicola,
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Application and Theory of Petri Nets and Other Models of Concurrency: Special Issue of Selected Papers from Petri Nets 2014
Publication: Research - peer-review › Editorial – Annual report year: 2015

Behavior Modeling – Foundations and Applications: International Workshops, BM-FA 2009-2014, Revised Selected Papers
Publication: Research - peer-review › Book – Annual report year: 2015

Bx 2015 — Bidirectional Transformations: Proceedings of the 4th International Workshop on Bidirectional Transformations
Publication: Research - peer-review › Book – Annual report year: 2015

Capabilities for modelling of conversion processes in LCA
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Capabilities For Modelling Of Conversion Processes In Life Cycle Assessment
Damgaard, A., Zarrin, B., Tonini, D., Baumeister, H. & Astrup, T. F. 2015
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2015

Code Generation from Pragmatics Annotated Coloured Petri Nets
Publication: Research › Ph.D. thesis – Annual report year: 2015

Developing merged CDIO based curricula for diploma (B.Eng.) IT study programs at DTU
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Effective and efficient model clone detection
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Efficient Model Querying with VMQL
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

First International Workshop on Human Factors in Modeling (HuFaMo 2015): Preface
Publication: Research - peer-review › Preface/postscript – Annual report year: 2015

Formal Development and Verification of Railway Control Systems - In the context of ERTMS/ETCS Level 2
An environmental assessment system for environmental technologies
Clavreul, J., Baumeister, H., Christensen, T. H. & Damgaard, A. 2014 In : Environmental Modelling & Software. 60, p. 18-30

An Evaluation of Automated Code Generation with the PetriCode Approach

An Index for Software Engineering Models

An Institution for Imperative RSL Specifications


Applied Bounded Model Checking for Interlocking System Designs

Automated generation of formal safety conditions from railway interlocking tables

Complete Model-Based Equivalence Class Testing for the ETCS Ceiling Speed Monitor

Coordinating Interactions: The Event Coordination Notation

Design of a Domain-Specific Language for Material Flow Analysis using Microsoft DSL tools: An Experience Paper

EASETECH – A LCA model for assessment of environmental technologies
Modeling Requirements with RED
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

On the Impact of Diagram Layout: How Are Models Actually Read?
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

On the Impact of Layout Quality to Understanding UML Diagrams: Size Matters
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

PetriCode: A Tool for Template-Based Code Generation from CPN Models
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Pragmatics Annotated Coloured Petri Nets for Protocol Software Generation and Verification
Publication: Research › Report – Annual report year: 2014

Publication: Research › Report – Annual report year: 2014

Ranking Entities in Networks via Lefschetz Duality
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Special issue: Selected papers of BPM 2012: From the guest editors
Publication: Research - peer-review › Editorial – Annual report year: 2014

Testing and Deployment of Software Systems (in practice)
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

The Requirements Editor RED
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Towards a model-based development approach for wireless sensor-actuator network protocols
Formal Model-Based Validation for Tally Systems
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Generating Protocol Software from CPN Models Annotated with Pragmatics
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

How Do Developers Use APIs? A Case Study in Concurrency
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Improving modeling with layered UML diagrams
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Improving the Usability of OCL as an Ad-hoc Model Querying Language
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Integrating Intelligent Electric Devices into Distributed Energy Resources in a Cloud-Based Environment
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Intelligent Electric Vehicle Integration - Domain Interfaces and Supporting Informatics
Publication: Research › Ph.D. thesis – Annual report year: 2013

LCA of waste management systems: Development of tools for modeling and uncertainty analysis
Publication: Research › Ph.D. thesis – Annual report year: 2013

Making sense to modelers: Presenting UML class model differences in prose
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

MOCQL: A Declarative Language for Ad-Hoc Model Querying
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Modelling sensitivity and uncertainty in a LCA model for waste management systems - EASETECH
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013
Timing Analysis of Mixed-Criticality Hard Real-Time Applications Implemented on Distributed Partitioned Architectures
Publication: Research - peer-review › Paper – Annual report year: 2013

An Introduction to Formal Methods for the Development of Safety-critical Applications
Publication: Research › Report – Annual report year: 2010

Projects:

Effective, Co-created and compliant ACM
Weber, B., Burattin, A. & Abbad Andaloussi, A.
01/09/2017 → 31/08/2020
Project

COMPUTE Software Group
Störrle, H., Madsen, J., Ersbøll, B. K. & Kristensen, K.
01/01/2015 → 31/12/2015
Project

Communication with Models
Störrle, H. & Davidsen, J.
01/10/2014 → 30/09/2015
Project

PROActive INtegration of sustainable energy resources enabling active distribution networks
Petersen, B. S., Poulsen, B., Bindner, H. W. & You, S.
01/01/2014 → 31/12/2017
Project

Activities:

Formal Methods for Software Development
Haxthausen, A. E. (Guest lecturer)
11 Sep 2017 → 14 Sep 2017
Activity: Talks and presentations › Guest lectures, external teaching and course activities at other universities

International Workshop on Business Process Intelligence
Burattin, A. (Organizer)
10 Sep 2017 → 11 Sep 2017
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

University of Florence
Haxthausen, A. E. (Visiting researcher)
15 Aug 2017 → 14 Sep 2017
Activity: Visiting an external institution › Visiting another research institution

Green Light for Smarter Methods in Railway Safety Verification
Haxthausen, A. E. (Guest lecturer)
31 May 2017
Activity: Talks and presentations › Conference presentations

International Workshop on Business Process Intelligence
Burattin, A. (Organizer)
19 Sep 2016
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.
Heidelberg Laureate Forum
Macedo, H. D. D. S. (Participant)
18 Sep 2016 → 23 Sep 2016
Activity: Attending an event › Participating in or organising a conference

Formel Modellering og Verifikation af Jernbanekontrolsystemer: Et eksempel fra RobustRailS WP 4.1
Haxthausen, A. E. (Invited speaker)
3 Feb 2016
Activity: Talks and presentations › Conference presentations

International Workshop on Business Process Intelligence
Burattin, A. (Organizer)
31 Aug 2015
Activity: Attending an event › Participating in or organising workshops, courses, seminars etc.

Prizes:

Best Demo Award
Andrea Burattin (Recipient), 21 Sep 2016
Prize: Prizes, scholarships, distinctions

Best Process Mining Dissertation Award
Andrea Burattin (Recipient), 8 Sep 2014
Prize: Prizes, scholarships, distinctions

Press clippings:

Returning to the Rails.: Rail Safety: Back in the Spotlight.
Anne Elisabeth Haxthausen
18/03/2016
1 media contribution
Press / Media

Ekspert om tysk togkollision: "Besynderlig ulykke"
Anne Elisabeth Haxthausen
09/02/2016
1 media contribution
Press / Media

Matematik mindsker risiko for togkollision
Anne Elisabeth Haxthausen
01/12/2015
1 media contribution
Press / Media

Matematisk gennembrud øger tog sikkerheden
Anne Elisabeth Haxthausen
01/09/2015
1 media contribution
Press / Media