Activity-based DEVS modeling. / Alshareef, Abdurrahman; Sarjoughian, Hessam S.; Zarrin, Bahram.
Publication: Research - peer-review › Journal article – Annual report year: 2018

A multicore processor for time-critical applications. / Schoeberl, Martin; Pezzarossa, Luca; Sparso, Jens.
Publication: Research - peer-review › Journal article – Annual report year: 2018

An Integrated Framework to Specify Domain-Specific Modeling Languages. / Zarrin, Bahram; Baumeister, Hubert.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

AntibIoTic: Protecting IoT Devices Against DDoS Attacks. / De Donno, Michele; Dragoni, Nicola; Giaretta, Alberto; Mazzara, Manuel.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

DDoS-Capable IoT Malwares: Comparative Analysis and Mirai Investigation. / De Donno, Michele; Dragoni, Nicola; Giaretta, Alberto; Spognardi, Angelo.
Publication: Research - peer-review › Journal article – Annual report year: 2018

Double-Loop Health Technology: Enabling Socio-technical Design of Personal Health Technology in Clinical Practice. / Bardram, Jakob Eyvind; Frost, Mads.
Publication: Research - peer-review › Book chapter – Annual report year: 2018

Face Recognition using Approximate Arithmetic. / Marso, Karol; Nannarelli, Alberto (Supervisor).
Publication: Research › Report – Annual report year: 2018

Lipsi: Probably the Smallest Processor in the World. / Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Model-Based Systems Engineering for Life-Sciences Instrumentation Development. / Patou, François; Dimaki, Maria; Maier, Anja; Svendsen, Winnie Edith; Madsen, Jan.
Publication: Research - peer-review › Journal article – Annual report year: 2018

Paper-based sensors for rapid detection of virulence factor produced by Pseudomonas aeruginosa. / Alatraktchi, Fatima AlZahra’a; Noori, Jafar Safaa; Tanev, Georgi Plamenov; Mortensen, John; Dimaki, Maria; Johansen, Helle Krog; Madsen, Jan; Molin, Søren; Svendsen, Winnie Edith.
Publication: Research - peer-review › Journal article – Annual report year: 2018

Patmos: a time-predictable microprocessor. / Schoeberl, Martin; Puffitsch, Wolfgang; Hepp, Stefan; Huber, Benedikt; Prokesch, Daniel.
Publication: Research - peer-review › Journal article – Annual report year: 2018
Reconfiguration of Computation and Communication Resources in Multi-Core Real-Time Embedded Systems. / Pezzarossa, Luca.
Publication: Research › Ph.D. thesis – Annual report year: 2018

Selected papers from the 2nd IEEE Nordic Circuits and Systems Conference (NorCAS), 2016. / Sparsø, Jens.
In: Microprocessors and Microsystems, 2018.
Publication: Research - peer-review › Editorial – Annual report year: 2018

Towards Domain-specific Flow-based Languages. / Zarrin, Bahram; Baumeister, Hubert; Sarjoughian, Hessam S.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

Supporting smartphone-based behavioral activation: A simulation study. / Bardram, Jakob Eyvind; Rohani, Darius A.; Tuxen, Nanna; Faurcholt-Jepsen, Maria; Kessing, Lars V.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Improving performance of single-path code through a time-predictable memory hierarchy. / Cilku, Bekim; Puffitsch, Wolfgang; Prokesch, Daniel; Schoeberl, Martin; Puschner, Peter.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Pin-count reduction for continuous flow microfluidic biochips. / Schneider, Alexander; Pop, Paul; Madsen, Jan.
Publication: Research - peer-review › Journal article – Annual report year: 2017

A Controller for Dynamic Partial Reconfiguration in FPGA-Based Real-Time Systems. / Pezzarossa, Luca; Schoeberl, Martin; Sparsø, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Activity-Based Collaboration for Interactive Spaces. / Bardram, Jakob Eyvind; Esbensen, Morten; Tabard, Aurélien.
Publication: Research - peer-review › Book chapter – Annual report year: 2017

A language-based approach to modelling and analysis of Twitter interactions. / Maggi, Alessandro; Petrocchi, Marinella; Spognardi, Angelo; Tiezzi, Francesco.
Publication: Research - peer-review › Journal article – Annual report year: 2017

A Multi-Format Floating-Point Multiplier for Power-Efficient Operations. / Nannarelli, Alberto.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Analysis of DDoS-capable IoT malwares. / De Donno, Michele; Dragoni, Nicola; Giaretta, Alberto; Spognardi, Angelo.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017
An Introduction to Malware. / Sharp, Robin.
2017. 35 p.
Publication: Education › Compendium/lecture notes – Annual report year: 2017

A resource-efficient network interface supporting low latency reconfiguration of virtual circuits in time-division multiplexing networks-on-chip. / Sørensen, Rasmus Bo; Pezzarossa, Luca; Schoeberl, Martin; Sparsoe, Jens.
Publication: Research - peer-review › Journal article – Annual report year: 2017

A Shared Scratchpad Memory with Synchronization Support. / Hansen, Henrik Enggaard; Maroun, Emad Jacob; Kristensen, Andreas Toftegaard; Schoeberl, Martin; Marquart, Jimmi.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

A Study on Text-Score Disagreement in Online Reviews. / Fazzolari, Michela; Cozza, Vittoria; Petrocchi, Marinella; Spognardi, Angelo.
Publication: Research - peer-review › Journal article – Annual report year: 2017

A systematic and practical method for selecting systems engineering tools. / Munck, Allan; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

A Top-down Approach to Genetic Circuit Synthesis and Optimized Technology Mapping. / Baig, Hasan; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Best practice for caching of single-path code. / Schoeberl, Martin; Cilku, Bekim; Prokesch, Daniel; Puschner, Peter.
Publication: Research - peer-review › Journal article – Annual report year: 2017

Best Practice for Caching of Single-Path Code. / Schoeberl, Martin; Cilku, Bekim; Prokesch, Daniel; Puschner, Peter.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Big Data hvor N=1. / Bardram, Jakob Eyvind.
Publication: Research › Book chapter – Annual report year: 2017

Can Real-Time Systems Benefit from Dynamic Partial Reconfiguration? / Pezzarossa, Luca; Kristensen, Andreas Toftegaard; Schoeberl, Martin; Sparsoe, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Can smartphone-based electronic markers discriminate between patients with bipolar disorder, healthy first-degree relatives and healthy control individuals. / Stanislaus, S.; Faurholt-Jepsen, M.; Vinberg, M.; Winther, Ole; Frost, Michael Grynnerup; Bardram, Jakob Eyvind; Kessing, L.
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2017

Collaborative Affordances of Medical Records. / Bardram, Jakob Eyvind; Houben, Steven.
Publication: Research - peer-review › Journal article – Annual report year: 2017
Co-Simulation of Cyber-Physical System with Distributed Embedded Control. / Pedersen, Nicolai; Madsen, Jan (Main supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2017

Digital Arithmetic: Division Algorithms. / Montuschi, Paolo; Nannarelli, Alberto.
Publication: Research - peer-review › Book chapter – Annual report year: 2017

Distributed co-simulation of embedded control software with exhaust gas recirculation water handling system using INTO-CPS. / Pedersen, Nicolai; Lausdahl, Kenneth; Sanchez, Enrique Vidal; Larsen, Peter Gorm; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

EEG source imaging assists decoding in a face recognition task. / Andersen, Rasmus S.; Eliasen, Anders U.; Pedersen, Nicolai; Andersen, Michael Riis; Hansen, Sofie Therese; Hansen, Lars Kai.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Fast architecture-level synthesis of fault-tolerant flow-based microfluidic biochips. / Huang, Wei Lun; Gupta, Ankur; Roy, Sudip; Ho, Tsung-Yi; Pop, Paul.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Fault-Tolerant Topology and Routing Synthesis for IEEE Time-Sensitive Networking. / Gavrilut, Voica Maria; Zarrin, Bahram; Pop, Paul; Samili, Soheil.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Helbredstjek af dansk sundhedsteknologi : Sektorudviklingsrapport. / Nielsen, Niels Axel; Bardram, Jakob Eyvind; Madsen, Jan; Jørgensen, John Bagterp; Riis, Mark Bernhard; Andersen, Henning Boje; Sørensen, Helge Bjarke Dissing; Svendsen, Winnie Edith; Andersen, Peter E.; Pryds, Nini; Lauritsen, Sune Nordentoft; Skov, Anne Ladegaard; Buch, Martin Jensen; Andersen, Morten; Billund, Charlotte Holm; Brückner, Lars; Kruse, Stine; Molzen, Jan Eiersted; Odgaard, Mads H.
Technical University of Denmark (DTU), 2017. 72 p.
Publication: Commissioned › Report – Annual report year: 2017

High-level synthesis for reduction of WCET in real-time systems. / Kristensen, Andreas Toftegaard; Pezzarossa, Luca; Sören, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

High Performance with Prescriptive Optimization and Debugging. / Jensen, Nicklas Bo; Probst, Christian W. (Supervisor); Karlsson, Sven (Supervisor).
Kgs. Lyngby : Technical University of Denmark (DTU), 2017. 204 p. (DTU Compute PHD-2016; No. 437).
Publication: Research › Ph.D. thesis – Annual report year: 2017

Improving Loop Dependence Analysis. / Jensen, Nicklas Bo; Karlsson, Sven.
Publication: Research - peer-review › Journal article – Annual report year: 2017

Logic analysis and verification of n-input genetic logic circuits. / Baig, Hasan; Madsen, Jan.
Publication: Research - peer-review › Journal article – Annual report year: 2017

Publication: Research - peer-review › Journal article – Annual report year: 2017

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

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

Publication: Research › Article in proceedings – Annual report year: 2018

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

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

Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

An Adaptive Middleware for Improved Computational Performance. / Bonnichsen, Lars Frydendal; Probst, Christian W. (Supervisor); Karlsson, Sven (Supervisor).
An Area-Efficient TDM NoC Supporting Reconfiguration for Mode Changes. / Sørensen, Rasmus Bo; Pezzarossa, Luca; Sparsø, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

A Pin-Count Reduction Algorithm for Flow-Based Microfluidic Biochips. / Schneider, Alexander Rüdiger; Pop, Paul; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Architecture Synthesis for Cost-Constrained Fault-Tolerant Flow-based Biochips. / Eskesen, Morten Chabert; Pop, Paul; Potluri, Seetal.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Argo: A Real-Time Network-on-Chip Architecture With an Efficient GALS Implementation. / Kasapaki, Evangelia; Schoeberl, Martin; Sørensen, Rasmus Bo; Müller, Christoph; Goossens, Kees; Sparsø, Jens.
Publication: Research - peer-review › Journal article – Annual report year: 2015

A scalable lock-free hash table with open addressing. / Nielsen, Jesper Puge; Karlsson, Sven .
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

A Software Managed Stack Cache for Real-Time Systems. / Jordan, Alexander; Abbaspourseyedi, Sahar; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

A Stack Cache for Real-Time Systems. / Schoeberl, Martin; Nielsen, Carsten.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

A Survey of Man in the Middle Attacks. / Conti, Mauro; Dragoni, Nicola; Lesyk, Viktor.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Automatic Functionality Assignment to AUTOSAR Multicore Distributed Architectures. / Maticu, Florin; Pop, Paul; Axbrink, Christian; Islam, Mafijul.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Avionics Applications on a Time-Predictable Chip-Multiprocessor. / Rocha, André; Silva, Cláudio; Sørensen, Rasmus Bo; Sparsø, Jens; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016
D-VASim: A Software Tool to Simulate and Analyze Genetic Logic Circuits. / Baig, Hasan; Madsen, Jan.
Publication: Research › Internet publication – Annual report year: 2016

Dynamically-Loaded Hardware Libraries (HLL) Technology for Audio Applications. / Esposito, A.; Lomuscio, A.; Nunzio, L. Di; Fazzolari, R.; Nannarelli, Alberto; Re, M.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Efficient Worst-Case Execution Time Analysis of Dynamic Branch Prediction. / Puffitsch, Wolfgang.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Electronic self-monitoring of mood using IT platforms in adult patients with bipolar disorder: A systematic review of the validity and evidence. / Faurholt-Jepsen, Maria; Munkholm, Klaus; Frost, Mads; Bardram, Jakob Eyvind; Kessing, Lars Vedel.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Evaluation of Professional Cloud Password Management Tools. / Schougaard, Daniel; Dragoni, Nicola; Spognardi, Angelo

FPGA Acceleration by Dynamically-Loaded Hardware Libraries. / Lomuscio, Andrea; Nannarelli, Alberto; Re, Marco.
Publication: Research › Report – Annual report year: 2016

Game-based verification and synthesis. / Vester, Steen; Hansen, Michael Reichhardt (Main supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2016

Hardware locks for a real-time Java chip multiprocessor. / Strøm, Torur Biskopstø; Puffitsch, Wolfgang; Schoeberl, Martin.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Implementation of Hardware Accelerators on Zynq. / Toft, Jakob Kenn; Nannarelli, Alberto (Supervisor).
Improved 64-bit Radix-16 Booth Multiplier Based on Partial Product Array Height Reduction. / Antelo, Elisardo; Montuschi, Paolo; Nannarelli, Alberto.
Publication: Research - peer-review › Journal article – Annual report year: 2017

Lessons learned from the EU project T-CREST. / Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Logic and Timing Analysis of Genetic Logic Circuits using D-VASim. / Baig, Hasan; Madsen, Jan.
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2016

Microfluidic Very Large Scale Integration (VLSI) : Modeling, Simulation, Testing, Compilation and Physical Synthesis. / Pop, Paul; Minhas, Wajid Hassan; Madsen, Jan.
Publication: Research - peer-review › Book – Annual report year: 2016

Mind the tracker you wear : a security analysis of wearable health trackers. / Goyal, Rohit; Dragoni, Nicola; Spognardi, Angelo.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Model-Based Evaluation Of System Scalability: Bandwidth Analysis For Smartphone-Based Biosensing Applications. / Patou, François; Madsen, Jan; Dimaki, Maria; Svendsen, Winnie Edith.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Performance/Power Space Exploration for Binary64 Division Units. / Nannarelli, Alberto.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Proceedings of the 23rd International Symposium on Temporal Representation and Reasoning (TIME 2016). / Dyreson, Curtis (Editor); Hansen, Michael Reichhardt (Editor); Hunsberger, Luke (Editor).
Publication: Research › Book – Annual report year: 2016

Reconfiguration in FPGA-Based Multi-Core Platforms for Hard Real-Time Applications. / Pezzarossa, Luca; Schoeberl, Martin; Sparse, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Routing Optimization of AVB Streams in TSN Networks. / Laursen, Sune Mølgaard; Pop, Paul; Steiner, Wilfried.
Publication: Research - peer-review › Conference article – Annual report year: 2016

SafeDroid: A Distributed Malware Detection Service for Android. / Goyal, Rohit; Spognardi, Angelo; Dragoni, Nicola; Argyriou, Marios.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016
Safety-critical Java for embedded systems. / Schoeberl, Martin; Dalsgaard, Andreas Engelbrett; Hansen, René Rydho; Korsholm, Stephan E.; Ravn, Anders P.; Rios Rivas, Juan Ricardo; Strøm, Torur Biskopste; Sendergaard, Hans; Wellings, Andy; Zhao, Shuai.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Security And Privacy Issues in Health Monitoring Systems: eCare@Home Case Study. / Wearing, Thomas ; Dragoni, Nicola.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Smartphone-based biosensing platform evolution: implementation of electrochemical analysis capabilities. / Patou, François; Dimaki, Maria; Svendsen, Winnie Edith; Kjærgaard, Claus; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

State-based Communication on Time-predictable Multicore Processors. / Sørensen, Rasmus Bo; Schoeberl, Martin; Sparsø, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

Support for the Logical Execution Time Model on a Time-predictable Multicore Processor. / Kluge, Florian; Schoeberl, Martin; Ungerer, Theo.
Publication: Research - peer-review › Conference article – Annual report year: 2016

Synthesis of Application-Specific Fault-Tolerant Digital Microfluidic Biochip Architectures. / Alistar, Mirela; Pop, Paul; Madsen, Jan.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Synthesis of railway-signaling plans using reachability games. / Kasting, Patrick Frederik Soelmark; Hansen, Michael Reichhardt; Vester, Steen.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

TACLeBench: A benchmark collection to support worst-case execution time research. / Falk, Heiko; Altmeyer, Sebastian; Hellinckx, Peter; Lisper, Bjørn; Puffitsch, Wolfgang; Rochange, Christine; Schoeberl, Martin; Sørensen, Rasmus Bo; Wägemann, Peter; Wegener, Simon.
Publication: Research - peer-review › Journal article – Annual report year: 2017

The Personal Health Technology Design Space. / Bardram, Jakob Eyvind; Frost, Mads.
Publication: Research - peer-review › Journal article – Annual report year: 2016

The SafeCOP ECSEL Project: Safe Cooperating Cyber-Physical Systems Using Wireless Communication. / Pop, Paul; Scholle, Detlef; Hansson, Hans; Widforss, Gunnar; Rosqvist, Malin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016
Publication: Research - peer-review › Journal article – Annual report year: 2015

Publication: Research - peer-review › Journal article – Annual report year: 2015

An Asynchronous Time-Division-Multiplexed Network-on-Chip for Real-Time Systems. / Kasapaki, Evangelia; Sparse, Jens (Supervisor); Schoeberl, Martin (Supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2015

A Probabilistic Approach for the System-Level Design of Multi-ASIP Platforms. / Micconi, Laura; Madsen, Jan (Supervisor) ; Pop, Paul (Supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2015

A Scalable Prescriptive Parallel Debugging Model. / Jensen, Nicklas Bo; Quarfat Nielsen, Niklas ; Lee, Gregory L.; Karlsson, Sven ; Legendre, Matthew ; Schulz, Martin; Ahn, Dong H.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

A Smart Mobile Lab-on-Chip-Based Medical Diagnostics System Architecture Designed For Evolvability. / Patou, François ; Dimaki, Maria; Svendsen, Winnie Edith; Kjærgaard, Claus; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

A Time-Composable Operating System for the Patmos Processor. / Ziccardi, Marco ; Schoeberl, Martin; Vardanega, Tullio.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Attributes Enhanced Role-Based Access Control Model. / Mahmood Rajpoot, Qasim; Jensen, Christian D.; Krishnan, Ram.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Characterization of RNS multiply-add units for power efficient DSP. / Cardarilli, Gian Carlo; Nannarelli, Alberto; Petricca, Massimo; Re, Marco.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Publication: Research - peer-review › Article in proceedings – Annual report year: 2015
Message Passing on a Time-predictable Multicore Processor. / Sørensen, Rasmus Bo; Puffitsch, Wolfgang; Schoeberl, Martin; Sparø, Jens.

Microfluidic very large-scale integration for biochips: Technology, testing and fault-tolerant design. / Araci, Ismail Emre; Pop, Paul; Chakrabarty, Krishnendu.


Multiprocessor Priority Ceiling Emulation for Safety-Critical Java. / Strøm, Torur Biskopstø; Schoeberl, Martin.

No Need Knowing Numerous Neighbours: Towards a Realizable Interpretation of MLSL. / Fränzle, Martin; Hansen, Michael Reichhardt; Ody, Heinrich.

Off-line mapping of multi-rate dependent task sets to many-core platforms. / Puffitsch, Wolfgang; Noulard, Eric; Pagetti, Claire.


Optimal Scheduling of Stochastic Production Processes Through Model Checking. / Herbert, Luke Thomas; Hansen, Zaza Nadja Lee; Sharp, Robin; Jacobsen, Peter.

Persistence-Based Branch Misprediction Bounds for WCET Analysis. / Puffitsch, Wolfgang.
Physical trust-based persistent authentication, / Fujita, Masahiro ; Jensen, Christian D.; Arimura, Shiori ; Ikeya, Yuki ; Nishigaki, Masakatsu .
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Pin count-aware biochemical application compilation for mVLSI biochips, / Lander Raagaard, Michael; Pop, Paul.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Power and thermal efficient numerical processing, / Liu, Wei; Nannarelli, Alberto.
Publication: Research - peer-review › Book chapter – Annual report year: 2015

Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Receiver-initiated medium access control protocols for wireless sensor networks, / Fafoutis, Xenofon; Di Mauro, Alessio; Vithanage, Madava D.; Dragni, Nicola.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Redundancy Optimization for Error Recovery in Digital Microfluidic Biochips, / Alistar, Mirela; Pop, Paul; Madsen, Jan.
Publication: Research - peer-review › Journal article – Annual report year: 2015

Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Safety-critical Java on a time-predictable processor, / Korsholm, Stephan E.; Schoeberl, Martin; Puffitsch, Wolfgang.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Stack Caching Using Split Data Caches, / Nielsen, Carsten; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Synthesis of Biochemical Applications on Digital Microfluidic Biochips with Operation Execution Time Variability, / Alistar, Mirela; Pop, Paul.
Publication: Research - peer-review › Journal article – Annual report year: 2015

System-level synthesis of multi-ASIP platforms using an uncertainty model, / Micconi, Laura; Madsen, Jan; Pop, Paul.
Publication: Research - peer-review › Journal article – Annual report year: 2015
T-CREST: Time-predictable multi-core architecture for embedded systems. / Schoeberl, Martin; Abbaspourseyedi, Sahar; Jordan, Alexander; Kasapaki, Evangelia; Puffitsch, Wolfgang; Sparse, Jens; Akesson, Benny; Audsley, Neil; Garside, Jamie; Capasso, Raffaele; Tocchi, Alessandro; Goossens, Kees; Goossens, Sven; Li, Yonghui; Hansen, Scott; Heckmann, Reinhold; Hepp, Stefan; Huber, Benedict; Knoop, Jens; Prokesh, Daniel; Puschnier, Peter; Rocha, André; Silva, Cláudio.
Publication: Research - peer-review › Journal article – Annual report year: 2015

Test-driven modeling of embedded systems. / Munck, Allan; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

The Argo NOC: Combining TDM and GALS. / Kasapaki, Evangelia; Sparse, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Thermal Aware Floorplanning Incorporating Temperature Dependent Wire Delay Estimation. / Winther, AndreasThor; Liu, Wei; Nannarelli, Alberto; Vrudhula, Sarma.
Publication: Research - peer-review › Journal article – Annual report year: 2015

Time-division multiplexing vs network calculus: A comparison. / Puffitsch, Wolfgang; Sørensen, Rasmus Bo; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Timing Analysis of Rate Constrained Traffic for the TTEthernet Communication Protocol. / Tamas-Selicean, Domitian; Pop, Paul; Steiner, Wilfried.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Towards droplet size-aware biochemical application compilation for AM-EWOD biochips. / Pop, Paul; Alistar, Mirela.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Video Surveillance: Privacy Issues and Legal Compliance. / Mahmood Rajpoot, Qasim; Jensen, Christian D.
Publication: Research - peer-review › Book chapter – Annual report year: 2015

vZ - An Optimizing SMT Solver. / Bjørner, Nikolaj; Dung, Phan Anh; Fleckenstein, Lars.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

vZ - Maximal Satisfaction with Z3. / Bjørner, Nikolaj; Dung, Phan Anh.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Addressing production stops in the food industry. / Hansen, Zaza Nadja Lee; Herbert, Luke Thomas; Jacobsen, Peter.
A flexible mobile-device biosensing instrumentation platform for point-of-care medical diagnostics applications. / Patou, François; Pfreundt, Andrea; Zulfiqar, Azeem; Dimaki, Maria; Kjærgaard, Claus; Madsen, Jan; Svendsen, Winnie Edith. 2014. Poster session presented at 24th Anniversary World Congress on Biosensors, Melbourne, Australia.

A flexible mobile-device biosensing instrumentation platform for point-of-care medical diagnostics applications. / Patou, François; Pfreundt, Andrea; Zulfiqar, Azeem; Dimaki, Maria; Kjærgaard, Claus; Madsen, Jan; Svendsen, Winnie Edith. Proceedings of the 14th Anniversary World Congress on Biosensors. 2014.


A novel single-step, multipoint calibration method for instrumented Lab-on-Chip systems. / Pfreundt, Andrea; Patou, François; Zulfiqar, Azeem; Dimaki, Maria; Madsen, Jan; Svendsen, Winnie Edith. 2014. Poster session presented at Lab-on-a-Chip European Congress 2014, Berlin, Germany.

A novel single-step, multipoint calibration method for instrumented Lab-on-Chip systems. / Pfreundt, Andrea; Patou, François; Zulfiqar, Azeem; Dimaki, Maria; Madsen, Jan; Svendsen, Winnie Edith.
A practical approach to model checking Duration Calculus using Presburger Arithmetic. / Hansen, Michael Reichhardt; Dung, Phan Anh; Brekling, Aske Wiid.
Publication: Research - peer-review › Journal article – Annual report year: 2013

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

A Synthesizable Multicore Platform for Microwave Imaging. / Schleuniger, Pascal; Karlsson, Sven.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

A Time-predictable Memory Network-on-Chip. / Schoeberl, Martin; Chong, David VH; Puffitsch, Wolfgang; Sparsoe, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Automated evolutionary restructuring of workflows to minimise errors via stochastic model checking. / Herbert, Luke Thomas; Hansen, Zaza Nadja Lee; Jacobsen, Peter.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Automatic generation of application specific FPGA multicore accelerators. / Hindborg, Andreas Erik; Schleuniger, Pascal; Jensen, Nicklas Bo; Walter, Maxwell; Brock-Nannestad, Laust; Bonnichsen, Lars Frydendal; Probst, Christian W.; Karlsson, Sven.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Certifiable Java for Embedded Systems. / Schoeberl, Martin; Dalsgaard, Andreas Engelbrecht; Hansen, Rene Rydho; Korsholm, Stephan E.; Ravn, Anders P.; Rios Rivas, Juan Ricardo; Strøm, Torur Biskopstø; Søndergaard, Hans.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Code Commentary and Automatic Refactorings using Feedback from Multiple Compilers. / Jensen, Nicklas Bo; Probst, Christian W.; Karlsson, Sven.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Collaborative Compiler Vectorization. / Jensen, Nicklas Bo; Probst, Christian W.; Karlsson, Sven.
2014. Poster session presented at 9th International Conference on High-Performance and Embedded Architectures and Compilers, Vienna, Austria.
Publication: Research › Poster – Annual report year: 2014

Compilation and Synthesis for Fault-Tolerant Digital Microfluidic Biochips. / Alistar, Mirela; Pop, Paul (Main supervisor); Madsen, Jan (Supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2014
PUBLICATION: Research - peer-review › Poster – Annual report year: 2014

Compilation Tool Chains and Intermediate Representations. / Mottin, Julien; Pacull, François; Keryell, Ronan; Schleuniger, Pascal.
PUBLICATION: Research › Book chapter – Annual report year: 2015

Compiler Feedback using Continuous Dynamic Compilation during Development. / Jensen, Nicklas Bo; Karlsson, Sven; Probst, Christian W.
Proceedings - Workshop on Dynamic Compilation Everywhere. 2014.
PUBLICATION: Research - peer-review › Article in proceedings – Annual report year: 2014

Criticality: static profiling for real-time programs. / Brandner, Florian; Hepp, Stefan; Jordan, Alexander.
PUBLICATION: Research - peer-review › Journal article – Annual report year: 2014

PUBLICATION: Research › Book chapter – Annual report year: 2014

Design and Implementation of Energy Harvesting Powered Wireless Sensor Networks. / Vuckovic, Dusan; Madsen, Jan (Main supervisor).
PUBLICATION: Research › Ph.D. thesis – Annual report year: 2014

DySectAPI: Scalable Prescriptive Debugging. / Jensen, Nicklas Bo; Karlsson, Sven; Quarfot Nielsen, Niklas; Lee, Gregory L.; Ahn, Dong H.; Legendre, Matthew; Schulz, Martin.
PUBLICATION: Research - peer-review › Poster – Annual report year: 2014

DySectAPI: Scalable Prescriptive Debugging. / Jensen, Nicklas Bo; Karlsson, Sven; Quarfot Nielsen, Niklas; Lee, Gregory L.; Ahn, Dong H.; Legendre, Matthew; Schulz, Martin.
PUBLICATION: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Editorial: Thematic series on best articles from IFIPTM and PST. / Fernandez-Gago, Carmen; Jensen, Christian D.
PUBLICATION: Research › Editorial – Annual report year: 2014

PUBLICATION: Research - peer-review › Book chapter – Annual report year: 2014

ELB-trees - Efficient Lock-free B+trees. / Bonnichsen, Lars Frydendal; Karlsson, Sven; Probst, Christian W.
2014. Poster session presented at 9th International Conference on High-Performance and Embedded Architectures and Compilers, Vienna, Austria.
PUBLICATION: Research › Poster – Annual report year: 2014
Performance Aspects of Synthesizable Computing Systems. / Schleuniger, Pascal; Karlsson, Sven (Main supervisor); Madsen, Jan (Supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2014

Programming language and tools for Multipurpose Lab-on-a-Chip Platforms. / Pop, Paul; Madsen, Jan; Understrup, Kasper; Alistar, Mirela; Minhass, Wajid Hassan; Krühne, Ulrich.
Publication: Research - peer-review › Poster – Annual report year: 2014

Remote Biometrics for Robust Persistent Authentication. / Ingwar, Mads Ingerslew; Jensen, Christian D.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Resilient Infrastructure and Building Security. / Ingwar, Mads Ingerslew; Jensen, Christian D. (Main supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2014

Reusable libraries for safety-critical Java. / Rios Rivas, Juan Ricardo; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Safe Asynchronous System Calls. / Brock-Nannestad, Laust; Karlsson, Sven .
Publication: Research - peer-review › Poster – Annual report year: 2014

Safe Asynchronous System Calls - extended abstract. / Brock-Nannestad, Laust; Karlsson, Sven .
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Safety-Critical Java for Embedded Systems. / Rios Rivas, Juan Ricardo; Schoeberl, Martin (Supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2014

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Scope-Based Method Cache Analysis. / Huber, Benedikt; Hepp, Stefan; Schoeberl, Martin.
Security and Privacy in Video Surveillance: Requirements and Challenges. / Mahmood Rajpoot, Qasim; Jensen, Christian D. 


Smart Multicore Embedded Systems. / Torquati, Massimo (Editor); Bertels, Koen (Editor); Karlsson, Sven (Editor); Pacull, Francois (Editor). Springer, 2014. 175 p.


Tradeoff analysis for Dependable Real-Time Embedded Systems during the Early Design Phases. / Gan, Junhe; Pop, Paul (Main supervisor); Madsen, Jan (Supervisor). Kgs. Lyngby : Technical University of Denmark (DTU), 2014. 135 p. (DTU Compute PHD-2014; No. 330).


Unit Testing Framework for Operating System Kernels. / Walter, Maxwell; Karlsson, Sven.
Publication: Research - peer-review › Poster – Annual report year: 2014

Using quantitative stochastic model checking tool to increase safety and improve efficiency in production processes. / Herbert, Luke Thomas; Hansen, Zaza Nadja Lee; Jacobsen, Peter.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

WCET-based comparison of an instruction scratchpad and a method cache. / Whitham, Jack; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Workflow Fault Tree Generation Through Model Checking. / Herbert, Luke Thomas; Sharp, Robin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

A 65-nm CMOS Area Optimized De-synchronization Flow for sub-Vth Designs. / Müller, Christoph; Malkowsky, Steffen; Andersson, Oskar; Mohammadi, Babak; Sparse, Jens; Rodrigues, Joachim.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

A Behavioral Study on the Effects of Rock Music on Auditory Attention. / Marchegiani, Letizia; Fafoutis, Xenofon.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Model Checking Business Processes. American Society of Mechanical Engineers, 2013. p. 3-40 (Advances in Computational Sciences and Information in Engineering (ACIER)).
Publication: Research - peer-review › Book chapter – Annual report year: 2013

An area-efficient network interface for a TDM-based Network-on-Chip. / Sparsø, Jens; Kasapaki, Evangelia; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

A network-flow based valve-switching aware binding algorithm for flow-based microfluidic biochips. / Tseng, Kai-Han; You, Sheng-Chi; Minhass, Wajid Hassan; Ho, Tsung-Yi; Pop, Paul.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

An SDRAM controller for real-time systems. / Lakis, Edgar; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Application-specific fault-tolerant architecture synthesis for digital microfluidic biochips. / Alistar, Mirela; Pop, Paul; Madsen, Jan.
ASAM: Automatic architecture synthesis and application mapping. / Joziwak, Lech; Lindwer, Menno; Corvino, Rosilde; Meloni, Paola; Micconi, Laura; Madsen, Jan; Diken, Erkan; Gangadharan, Deepak; Jordans, Roel; Pomata, Sebastiano; Pop, Paul; Tuveri, Giuseppe; Raffo, Luigi; Notarangelo, Giuseppe.
Publication: Research - peer-review › Journal article – Annual report year: 2014

A Time-predictable Stack Cache. / Abbaspour, Sahar; Brandner, Florian; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

BCI using imaginary movements: The simulator. / Rohani, Darius Adam; Henning, William S.; Thomsen, Carsten E.; Kjaer, Troels W.; Puthusserypady, S.; Sorensen, Helge B.D.
Publication: Research - peer-review › Journal article – Annual report year: 2013

Biochemical Application Compilation and Architecture Synthesis for Fault-Tolerant Digital Microfluidic Biochips. / Alistar, Mirela; Pop, Paul; Madsen, Jan.
2013 Poster session presented at Lab-on-a-Chip World Congress, San Diego, CA, United States.
Publication: Research - peer-review › Poster – Annual report year: 2014

Chip-Multiprocessor Hardware Locks for Safety-Critical Java. / Strøm, Torur Biskopste; Puffitsch, Wolfgang; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Control Synthesis for the Flow-Based Microfluidic Large-Scale Integration Biochips. / Minhass, Wajid Hassan; Pop, Paul; Madsen, Jan; Ho, Tsung-Yi.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Data cache organization for accurate timing analysis. / Schoeberl, Martin; Huber, Benedikt; Puffitsch, Wolfgang.
Publication: Research - peer-review › Journal article – Annual report year: 2013

Detecting and Preventing Beacon Replay Attacks in Receiver-Initiated MAC Protocols for Energy Efficient WSNs. / Di Mauro, Alessio; Fafoulis, Xenofon; Mödersheim, Sebastian Alexander; Dragoni, Nicola.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Dynamic allocation and admission policies for QoS-aware provisioning systems. / Mazzucco, M.; Mazzara, M.; Dragoni, Nicola.
Publication: Research - peer-review › Journal article – Annual report year: 2013

ELB-trees an efficient and lock-free B-tree derivative. / Bonnichsen, Lars Frydendal; Karlsson, Sven; Probst, Christian W.


**Formal methods for design and simulation of embedded systems.** / Jakobsen, Mikkel Koesfoed; Madsen, Jan (Main supervisor); Hansen, Michael Reichhardt (Supervisor). Kgs. Lyngby : Technical University of Denmark (DTU), 2013. 190 p. (PHD-2013; No. 289).


**Hardware support for CSP on a Java chip multiprocessor.** / Gruian, Flavius; Schoeberl, Martin. In: Microprocessors and Microsystems, Vol. 37, No. 4-5, 2013, p. 472-481.

**Hierarchical DSE for multi-ASIP platforms.** / Micconi, Laura; Corvino, Rosilde; Gangadharan, Deepak; Madsen, Jan; Pop, Paul; Jozwiak, Lech. 2013 2nd Mediterranean Conference on Embedded Computing (MECO). IEEE, 2013. p. 50-53.


Static analysis of worst-case stack cache behavior. / Jordan, Alexander; Brandner, Florian; Schoeberl, Martin.
Proceedings of the 21st International conference on Real-Time Networks and Systems. Association for Computing
Machinery, 2013. p. 55-64.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Sustainable medium access control: Implementation and evaluation of ODMAC. / Fafoutis, Xenofon; Di Mauro, Alessio;
Dragoni, Nicola.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Sustainable Performance in Energy Harvesting - Wireless Sensor Networks. / Fafoutis, Xenofon; Di Mauro, Alessio;
Dragoni, Nicola.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Synthetic Aperture Radar Data Processing on an FPGA Multi-Core System. / Schleuniger, Pascal; Kusk, Anders; Dall,
Jørgen; Karlsson, Sven.
Architecture of Computing Systems – ARCS 2013: 26th International Conference, Prague, Czech Republic, February 19-
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Task Based Programming on Embedded Multicores. / Schleuniger, Pascal; Karlsson, Sven.
2013. Poster session presented at 8th International Conference on High-Performance and Embedded Architectures and
Compilers, Berlin, Germany.
Publication: Research › Poster – Annual report year: 2014

The hardness of the functional orientation 2-color problem. / Stöckel, Morten; Vildhøj, Hjalte Wedel; Bøg, Søren.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Truncated multipliers through power-gating for degrading precision arithmetic. / Albicocco, Pietro; Cardarilli, Gian Carlo;
Nannarelli, Alberto; Petrica, Massimo; Re, Marco.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Tutorial: Digital microfluidic biochips: Towards hardware/software co-design and cyber-physical system integration. / Ho,
Tsung-Yi; Huang, Juinn-Dar; Pop, Paul.
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Analysis and Optimization of Mixed-Criticality Applications on Partitioned Distributed Architectures. / Tamas-Selicean,
Domitian; Marinescu, S. O.; Pop, Paul.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Attacker Modelling in Ubiquitous Computing Systems. / Papini, Davide; Sharp, Robin (Main supervisor); Jensen, Christian
D. (Supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2014

Direct Measurement of Power Dissipated by Monte Carlo Simulations on CPU and FPGA Platforms. / Albicocco, Pietro;
Papini, Davide; Nannarelli, Alberto.
Parallelizing More Loops with Compiler Guided Refactoring. / Larsen, Per; Ladelsky, Razya; Lidman, Jacob; McKee, Sally A.; Karlsson, Sven; Zaks, Ayal.
Publication: Research - peer-review ▶ Article in proceedings – Annual report year: 2012

Software Managed Cache for Parallel Systems. / Schleuniger, Pascal; Karlsson, Sven.
Publication: Research ▶ Poster – Annual report year: 2014

System-Level Modeling and Synthesis Techniques for Flow-Based Microfluidic Very Large Scale Integration Biochips. / Minhass, Wajid Hassan; Pop, Paul (Main supervisor); Madsen, Jan (Supervisor).
Publication: Research ▶ Ph.D. thesis – Annual report year: 2013

Timing Analysis of Mixed-Criticality Hard Real-Time Applications Implemented on Distributed Partitioned Architectures. / Marinescu, Sorin Ovidiu; Tamas-Selicean, Domitian; Acretoaie, Vlad; Pop, Paul.
Publication: Research - peer-review ▶ Paper – Annual report year: 2013