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

A modular reconfigurable digital microfluidics platform. / Tanev, Georgi Plamenov; Svendsen, Winnie Edith; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2018

A multicore processor for time-critical applications. / Schoeberl, Martin; Pezzarossa, Luca; Sparse, 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 › Journal article – Annual report year: 2018

Data-Driven Learning in High-Resolution Activity Sampling From Patients With Bipolar Depression: Mixed-Methods Study. / Rohani, Darius Adam; Tuxen, Nanna; Quemada Lopategui, Andrea; Kessing, Lars Vedel; Bardram, Jakob Eyvind.
Publication: Research - peer-review › Journal article – 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

Design of a time-predictable multicore processor: the T-CREST project. / Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – 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

From Monolithic to Microservices An Experience Report from the Banking Domain. / Bucciarone, Antonio; Dragoni, Nicola; Dustdar, Schahram; Larsen, Stephan T.; Mazzara, Manuel.
Publication: Research - peer-review › Journal article – Annual report year: 2018

Lipsi: Probably the Smallest Processor in the World. / Schoeberl, Martin.
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

One-way shared memory. / Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – 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 Krogh; 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.
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

Publication: Research › Ph.D. thesis – Annual report year: 2018

Supporting smartphone-based behavioral activation: A simulation study. / Bardram, Jakob Eyvind; Rohani, Darius A.; Tuxen, Nanna; Faahrholt-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 taxonomy of distributed denial of service attacks. / De Donno, Michele; Giaretta, Alberto; Dragoni, Nicola; Spognardi, Angelo.
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; Sparsø, 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 Gynnerup; 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.
Fast architecture-level synthesis of fault-tolerant flow-based microfluidic biochips. / Huang, Wei Lun; Gupta, Ankur; Roy, Sudip; Ho, Tsung-Yi; Pop, Paul.

Fault-Tolerant Topology and Routing Synthesis for IEEE Time-Sensitive Networking. / Gavrilut, Voica Maria; Zarrin, Bahram; Pop, Paul; Samii, Soheil.

Helbredstjek af dansk sundhedsteknologi : Sektorudviklingsrapport. / Nielsen, Niels Axel; Bardram, Jakob Eyvind; Madsen, Jan; Jørgensen, John Bagterp; Riis, Mark Bernhard; Andersen, Henning Boje; Sørensen, Helge Bjarup Dissing; Svendson, 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.

High-level synthesis for reduction of WCET in real-time systems. / Kristensen, Andreas Toftegaard; Pezzarossa, Luca; Sparse, Jens.

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).

Improving Loop Dependence Analysis. / Jensen, Nicklas Bo; Karlsson, Sven .

Logic analysis and verification of n-input genetic logic circuits. / Baig, Hasan; Madsen, Jan.

Methods and Tools for the Analysis, Verification and Synthesis of Genetic Logic Circuits, / Baig, Hasan; Madsen, Jan (Main supervisor); Pop, Paul (Supervisor).

Microservices: Yesterday, Today, and Tomorrow. / Dragoni, Nicola; Giallorenzo, Saverio; Lafuente, Alberto; Mazzara, Manuel; Montesi, Fabrizio; Mustafin, Ruslan; Safina, Larisa.

Paper-Based Digital Microfluidic Chip for Multiple Electrochemical Assay Operated by a Wireless Portable Control System. / Ruecha, Nipapan; Lee, Jumi; Chae, Heedo; Cheong, Haena; Soum, Veasna; Preechakasedkit, Pattarachaya; Chailapakul, Orawon; Tanev, Georgi Plamenov; Madsen, Jan; Rodthongkum, Nadnudda; Kwon, Oh-Sun; Shin, Kwanwoo.
Performance Improvements and Congestion Reduction for Routing-based Synthesis for Digital Microfluidic Biochips. / Windh, Skyler; Phung, Calvin; Grissom, Daniel T.; Pop, Paul; Brisk, Philip.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Real-Time Audio Processing on the T-CREST Multicore Platform. / Ausin, Daniel Sanz; Pezzarossa, Luca; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Reducing the rate and duration of Re-ADMISsions among patients with unipolar disorder and bipolar disorder using smartphone-based monitoring and treatment - the RADMIS trials: Study protocol for two randomized controlled trials. / Faurohl-Jepsen, Maria; Frost, Mads; Martiny, Klaus; Tuxen, Nanna; Rosenberg, Nicole; Busk, Jonas; Winther, Ole; Bardram, Jakob Eyvind; Kessing, Lars Vedel.
Publication: Research - peer-review › Journal article – Annual report year: 2017

RNS Applications in Digital Signal Processing. / Cardarilli, Gian Carlo; Nannarelli, Alberto; Re, Marco.
Publication: Research - peer-review › Book chapter – Annual report year: 2017

Robust Throughput Boosting for Low Latency Dynamic Partial Reconfiguration. / Nannarelli, Alberto; Re, M.; Cardarilli, Gian Carlo; Nunzio, L. Di; Brunella, M. Spaziani; Fazzolari, R.; Carbonari, F. .
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Safe Cooperating Cyber-Physical Systems using Wireless Communication. / Pop, Paul; Scholle, Detlef; Slijivo, Irfan; Hansson, Hans; Widforss, Gunnar; Rosqvist, Malin.
Publication: Research - peer-review › Journal article – Annual report year: 2017

Scheduling and Fluid Routing for Flow-Based Microfluidic Laboratories-on-a-Chip. / Minhass, Wajid Hassan; McDaniel, Jeffrey; Raagaard, Michael Lander; Brisk, Philip; Pop, Paul; Madsen, Jan.
Publication: Research - peer-review › Journal article – Annual report year: 2018

Security And Privacy Issues in Healthcare Monitoring Systems: A Case Study. / Handler, Daniel Tolboe; Hauge, Lotte; Spognardi, Angelo; Dragoni, Nicola.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Security flows in OAuth 2.0 framework: A case study. / Argyriou, Marios; Dragoni, Nicola; Spognardi, Angelo.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

Simulation Approach for Timing Analysis of Genetic Logic Circuits. / Baig, Hasan; Madsen, Jan.
Publication: Research - peer-review › Journal article – Annual report year: 2017

Social Fingerprinting: detection of spambot groups through DNA-inspired behavioral modeling. / Cresci, Stefano; Di Pietro, Roberto; Petrocchi, Marinella; Spognardi, Angelo; Tesconi, Maurizio.
Volume management for fault-tolerant continuous-flow microfluidics. / Schneider, Alexander Rüdiger; Pop, Paul; Madsen, Jan.
Publication: Research › peer-review › Conference abstract in proceedings – Annual report year: 2017

Waste-aware fluid volume assignment for flow-based microfluidic biochips. / Schneider, Alexander Rüdiger; Pop, Paul; Madsen, Jan.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2017

A Hardware Framework for on-Chip FPGA Acceleration. / Lomuscio, Andrea; Cardarilli, Gian Carlo; Nannarelli, Alberto; Re, Marco.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

A Matter of Words : NLP for Quality Evaluation of Wikipedia Medical Articles. / Cozza, Vittoria; Petrocchi, Marinella; Spognardi, Angelo.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

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; Schoebert, Martin; Sørensen, Rasmus Bo; Müller, Christoph; Goossens, Kees; Sparsø, Jens.
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

Behavioral activities collected through smartphones and the association with illness activity in bipolar disorder. / Faurholt-Jepsen, Maria; Vinberg, Maj; Frost, Mads; Debel, Sune; Christensen, Ellen Margrethe ; Bardram, Jakob Eyvind; Kessing, Lars Vedel.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Biowired Security Analysis of Wireless Protocols, / Petrocchi, Marinella; Spognardi, Angelo; Santi, Paolo.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Clock domain crossing modules for OCP-style read/write interfaces. / Herlev, Mathias; Sparsø, Jens.
Publication: Research › Report – Annual report year: 2016

Dedicated workspaces: Faster resumption times and reduced cognitive load in sequential multitasking. / Jeuris, Steven; Bardram, Jakob Eyvind.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Design and Simulation of a Quaternary Memory Cell based on a Physical Memristor. / Nannarelli, Alberto; Taylor, Jonathan.
Evolvable Smartphone-Based Platforms for Point-Of-Care In-Vitro Diagnostics Applications. / Patou, François; Al Atrakchi, Fatima Al-Zahraa; Kjærsgaard, Claus; Dimaki, Maria; Madsen, Jan; Svendsen, Winnie Edith.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Experimental Measures of News Personalization in Google News. / Cozza, Vittoria; Hoang, Van Tien; Petrocchi, Marinella; Spognardi, Angelo.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

FMI for Co-Simulation of Embedded Control Software. / Pedersen, Nicolai; Bojsen, Tom; Madsen, Jan; Vejlgaard-Laursen, Morten.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

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).
Publication: Research › Report – Annual report year: 2016

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; Minhass, 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.
Traffic class assignment for mixed-criticality frames in TTEthernet. / Gavrilut, Voica Maria; Pop, Paul.
Publication: Research - peer-review › Conference article – Annual report year: 2016

Voice analysis as an objective state marker in bipolar disorder. / Faurholt-Jepsen, M.; Busk, Jonas; Frost, M.; Vinberg, M.; Christensen, E. M.; Winther, Ole; Bardram, Jakob Eyvind; Kessing, L. V.
Publication: Research - peer-review › Journal article – Annual report year: 2016

Voice analysis as an objective state marker in bipolar disorder. / Faurholt-Jepsen, M.; Busk, J.; Frost, M.; Vinberg, M.; Christensen, E. M.; Winther, Ole; Bardram, Jakob Eyvind; Kessing, L. V.
Publication: Research - peer-review › Conference abstract in journal – Annual report year: 2016

Why Hackers Love eHealth Applications. / Goyal, Rohit; Dragoni, Nicola.
Proceedings of the 3rd EAI International Conference on IoT Technologies for HealthCare (HealthyIoT), 2016, LNICST.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2016

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

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

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; Sparsø, Jens (Supervisor); Schoeberl, Martin (Supervisor).
Publication: Research › Ph.D. thesis – Annual report year: 2016

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; Quarfoft 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
Developing merged CDIO based curricula for diploma (B.Eng.) IT study programs at DTU. / Nyborg, Mads; Probst, Christian W.; Stassen, Flemming.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

D-VASim: Dynamic Virtual Analyzer and Simulator for Genetic Circuits. / Baig, Hasan; Madsen, Jan.
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2015

Efficient Context Switching for the Stack Cache: Implementation and Analysis. / Abbaspourseyedi, Sahar; Brandner, Florian; Naji, Amine; Jan, Mathieu.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

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

Experiences with Compiler Support for Processors with Exposed Pipelines. / Jensen, Nicklas Bo; Schleuniger, Pascal; Hindborg, Andreas Erik; Walter, Maxwell; Karlsson, Sven.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Fame for sale: Efficient detection of fake Twitter followers. / Cresci, Stefano; Di Pietro, Roberto; Petrocchi, Marinella; Spognardi, Angelo; Tesconi, Maurizio.
Publication: Research - peer-review › Journal article – Annual report year: 2015

Fault Detection in WSNs - An Energy Efficiency Perspective Towards Human-Centric WSNs. / Orfanidis, Charalampos; Zhang, Yue; Dragoni, Nicola.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Fault-Tolerant Digital Microfluidic Biochips: Compilation and Synthesis. / Pop, Paul (Editor); Alistar, Mirela (Editor); Stuart, Elena (Editor); Madsen, Jan (Editor).
Publication: Research › Book – Annual report year: 2015

Fault-Tolerant Topology Selection for TTEthernet Networks. / Gavrilut, Voica Maria; Tamas-Selicean, Domitian; Pop, Paul.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Fernando: An educational ahead-of-time bytecode compiler. / Puffitsch, Wolfgang.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Flow-Based Biochips: Fault-Tolerant Design and Error Recovery. / Pop, Paul.
Hardware Locks with Priority Ceiling Emulation for a Java Chip-Multiprocessor. / Strøm, Torur Biskopstø; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Hardware Transactional Memory Optimization Guidelines, Applied to Ordered Maps. / Bonnichsen, Lars Frydendal; Probst, Christian W.; Karlsson, Sven.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Implementation of an Ethernet-Based Communication Channel for the Patmos Processor. / Pezzarossa, Luca; Toft, Jakob; Lønbæk, Jesper; Barnes, Russell.
Publication: Research › Report – Annual report year: 2015

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

Interfacing Hardware Accelerators to a Time-Division Multiplexing Network-on-Chip. / Pezzarossa, Luca; Sørensen, Rasmus Bo; Schoeberl, Martin; Sparso, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Introduction. / Pop, Paul; Alistar, Mirela; Stuart, Elena; Madsen, Jan.
Publication: Research › Book chapter – Annual report year: 2015

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

Microfluidic very large-scale integration for biochips: Technology, testing and fault-tolerant design. / Araci, Ismail Emre; Pop, Paul; Chakrabarty, Krishnendu.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Publication: Research › Ph.D. thesis – Annual report year: 2015

Models of Communication for Multicore Processors. / Schoeberl, Martin; Sørensen, Rasmus Bo; Sparso, Jens.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

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 Sceduling 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.

Pin count-aware biochemical application compilation for mVLSI biochips. / Lander Raagaard, Michael; Pop, Paul.

Power and thermal efficient numerical processing. / Liu, Wei; Nannarelli, Alberto.


Receiver-initiated medium access control protocols for wireless sensor networks. / Fafoutis, Xenofon; Di Mauro, Alessio; Vithanage, Madava D.; Dragoni, Nicola.

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

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

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

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

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

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; Sparsø, Jens; Akesson, Benny; Audsley, Neil; Garside, Jamie; Capasso, Raffaele; Tocchi, Alessandro; Goossens, Kees; Goossens, Sven; Li, Yonghui; Hansen, Scott; Heckmann, Reinhold; Hepp, Stefan; Huber, Benedikt; Knoop, Jens; Prokesch, Daniel; Puschnier, Peter; Rocha, André; Silva, Cláudio. In: Journal of Systems Architecture, Vol. 61, No. 9, 2015, p. 449-471.
Publication: Research - peer-review › Journal article – Annual report year: 2015

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

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

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

Timing Analysis of Rate Constrained Traffic for the TTEthernet Communication Protocol. / Tamas-Selicean, Domitian; Pop, Paul; Steiner, Wilfried.

Towards droplet size-aware biochemical application compilation for AM-EWOD biochips. / Pop, Paul; Alistar, Mirela.

Video Surveillance: Privacy Issues and Legal Compliance. / Mahmood Rajpoot, Qasim; Jensen, Christian D.

vZ - An Optimizing SMT Solver. / Bjørner, Nikolaj; Dung, Phan Anh; Fleckenstein, Lars.

vZ - Maximal Satisfaction with Z3. / Bjørner, Nikolaj; Dung, Phan Anh.

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.

Alignment of Memory Transfers of a Time-Predictable Stack Cache. / Abbaspourseyedi, Sahar; Brandner, Florian.

A Loosely Synchronizing Asynchronous Router for TDM-Scheduled NOCs. / Kotleas, Ioannis; Ioannis; Humphreys, Dean; Serensen, Rasmus Bo; Kasapaki, Evangelia; Brandner, Florian; Sparse, Jens.

Altruistic Backoff: Collision Avoidance for Receiver-Initiated MAC Protocols for Wireless Sensor Networks. / Fafoutis, Xenofon; Orfanidis, Charalampos; Dragoni, Nicola.
A Metaheuristic Scheduler for Time Division Multiplexed Network-on-Chip. / Sørensen, Rasmus Bo; Sparsø, Jens; Pedersen, Mark Ruvud; Højgaard, Jaspur.
Publication: Research › Report – Annual report year: 2014

A Metaheuristic Scheduler for Time Division Multiplexed Network-on-Chip. / Sørensen, Rasmus Bo; Sparsø, Jens; Pedersen, Mark Ruvud; Højgaard, Jaspur.
Publication: Research › peer-review › Article in proceedings – Annual report year: 2014

A method cache for Patmos. / Degasperi, Philipp; Hepp, Stefan; Puffitsch, Wolfgang; Schoeberl, Martin.
Publication: Research › peer-review › Conference article – Annual report year: 2014

An evaluation of safety-critical Java on a Java processor. / Rios Rivas, Juan Ricardo; Schoeberl, Martin.
Publication: Research › peer-review › Article in proceedings – Annual report year: 2014

A novel single-step, multipoint calibration method for instrumented Lab-on-Chip systems. / Pfreundt, Andrea; Patou, François; Zulfíqar, Azeem; Dimaki, Maria; Madsen, Jan; Svendsen, Winnie Edith.
Publication: Research › peer-review › Poster – Annual report year: 2014

A novel single-step, multipoint calibration method for instrumented Lab-on-Chip systems. / Pfreundt, Andrea; Patou, François; Zulfíqar, Azeem; Dimaki, Maria; Madsen, Jan; Svendsen, Winnie Edith.
Publication: Research › peer-review › Conference abstract in proceedings – Annual report year: 2014

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; Sparsø, 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.
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

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

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). Kgs. Lyngby : Technical University of Denmark (DTU), 2014. 153 p. (DTU Compute PHD-2014; No. 332).
Publication: Research › Ph.D. thesis – Annual report year: 2014

Publication: Research - peer-review › Poster – Annual report year: 2014

Publication: Research › Book chapter – Annual report year: 2015

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

Publication: Research - peer-review › Journal article – Annual report year: 2014

Publication: Research - peer-review › Article in proceedings – 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

ELB-trees - Efficient Lock-free B+trees. / Bonnichsen, Lars Frydendal; Karlsson, Sven; Probst, Christian W.
Publication: Research - peer-review › Conference abstract in proceedings – Annual report year: 2014

Enabling short fragments for uncoordinated spread spectrum communication. / Ahmed, Naveed; Pöpper, Christina; Capkun, Srdjan.
Publication: Research - peer-review › Article in proceedings – 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

Evolutionary optimisation of production materials workflow processes. / Herbert, Luke Thomas; Hansen, Zaza Nadja Lee; Jacobsen, Peter; Cunha, Pedro.
Disruptive Innovation in Manufacturing Engineering towards the 4th Industrial Revolution. 8th International Conference on Digital Enterprise Technology - DET 2014. 2014.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014
Evolutionary optimization of production materials workflow processes. / Herbert, Luke Thomas; Hansen, Zaza Nadja Lee; Jacobsen, Peter; Cunha, Pedro.
Publication: Research - peer-review › Conference article – Annual report year: 2014

Exposing MPI Objects for Debugging. / Brock-Nannestad, Laust; DelSignore, John; Squyres, Jeffrey M.; Karlsson, Sven; Mohror, Kathryn.
Publication: Research - peer-review › Poster – Annual report year: 2014

Exposing MPI Objects for Debugging. / Brock-Nannestad, Laust; DelSignore, John; Squyres, Jeffrey M.; Karlsson, Sven; Mohror, Kathryn.
Publication: Research - peer-review › Conference abstract for conference – Annual report year: 2014

Guest Editors' Introduction: Special Section on Computer Arithmetic. / Nannarelli, Alberto; Seidel, Peter-Michael; Tang, Ping Tak Peter.
Publication: Research - peer-review › Journal article – Annual report year: 2014

Hardware Realization of an FPGA Processor - Operating System Call Offload and Experiences. / Hindborg, Andreas Erik; Karlsson, Sven.
Publication: Research › Poster – Annual report year: 2014

Hardware Realization of an FPGA Processor - Operating System Call Offload and Experiences. / Hindborg, Andreas Erik; Karlsson, Sven.
Publication: Research › Conference abstract in proceedings – Annual report year: 2014

Hardware Realization of an FPGA Processor – Operating System Call Offload and Experiences. / Hindborg, Andreas Erik; Schleuniger, Pascal; Jensen, Nicklas Bo; Karlsson, Sven.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2015

Improving Usability of Passphrase Authentication. / Nielsen, Glen; Vedel, Michael; Jensen, Christian D.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Lazy Spilling for a Time-Predictable Stack Cache: Implementation and Analysis. / Abbaspourseyedi, Sahar; Jordan, Alexander; Brandner, Florian.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014

Library Support for Resource Constrained Accelerators. / Brock-Nannestad, Laust; Karlsson, Sven.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2014


MPI Debugging with Handle Introspection. / Brock-Nannestad, Laust; DelSignore, John; Squyres, Jeffrey M.; Karlsson, Sven; Mohror, Kathryn. 2014. Paper presented at Workshop on Exascale MPI (ExaMPI 2014), New Orleans, United States. Publication: Research - peer-review › Paper – Annual report year: 2014


Programming language and tools for Multipurpose Lab-on-a-Chip Platforms. / Pop, Paul; Madsen, Jan; Understrup, Kasper; Alistar, Mirela; Minhas, Wajid Hassan; Krühne, Ulrich. 2014. Poster session presented at 6th Annual Lab-on-a-Chip European Congress, Berlin, Germany. Publication: Research - peer-review › Poster – Annual report year: 2014


Reusable libraries for safety-critical Java. / Rios Rivas, Juan Ricardo; Schoeberl, Martin. 2014 IEEE 17th International Symposium on Object/Component/Service-Oriented Real-Time Distributed Computing (ISORC). ed. / Lisa O’Conner. IEEE, 2014. p. 188-197 (International Symposium on Object-Oriented Real-Time
Publication: Research - peer-review › Article in proceedings – 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

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

Tradeoff analysis for Dependable Real-Time Embedded Systems during the Early Design Phases. / Gan, Junhe; Pop, Paul (Main supervisor); Madsen, Jan (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 › Conference abstract for conference – Annual report year: 2014

Publication: Research - peer-review › Poster – 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

Publication: Research - peer-review › Article in proceedings – Annual report year: 2014
A 65-nm CMOS Area Optimized De-synchronization Flow for sub-VT 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; Minhas, 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.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

ASAM: Automatic architecture synthesis and application mapping. / Jozwiak, Lech; Lindwer, Menno; Corvino, Rosilde; Meloni, Paolo; 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: 2013

A Time-predictable Stack Cache. / Abbaspourseyedi, Sahar; Brandner, Florian; Schoeberl, Martin.
Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

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
Publication: Research › Book – Annual report year: 2013

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.
Publication: Research - peer-review › Journal article – Annual report year: 2013

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Publication: Research - peer-review › Journal article – Annual report year: 2013

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Publication: Research - peer-review › Journal article – Annual report year: 2013

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Publication: Research - peer-review › Article in proceedings – Annual report year: 2013

Publication: Research - peer-review › Journal article – Annual report year: 2013

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

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 › 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.
Publication: Research › Report – Annual report year: 2013

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; Acretoaei, Vlad; Pop, Paul.
Publication: Research - peer-review › Paper – Annual report year: 2013