List of Publications

[1] Alexander Biedermann and Sorin A. Huss. *Selbstheilende Strukturen in einem virtualisierbaren eingebetteten MPSoC* IBM Academic Lab Days, Böblingen, Germany, November 2013.

[2] Alexander Biedermann, Boris Dreyer and Sorin A. Huss. *A Generic, Scalable Reconfiguration Infrastructure for Sensor Networks Functionality Adaption.* 26th IEEE International SoC Conference (SOCC), Nürnberg, Germany, September 2013.

[3] Alexander Biedermann and Sorin A. Huss. *A Methodology for Invasive Programming on Virtualizable Embedded MPSoC Architectures.* 13th International Conference on Computational Science (ICCS), Barcelona, Spain, June 2013.

[4] Alexander Biedermann and Sorin A. Huss. *Hardware Virtualization-driven Software Task Switching in Reconfigurable Multi-Processor System-on-Chip Architectures .* ACM 5th Workshop on Mapping of Applications to MPSoCs (Map2MPSoC/SCOPES 2012), St. Goar, Germany, May 2012.

[5] Alexander Biedermann, Matthias Zöllner and Sorin A. Huss. *Automatic Code Parallelization and Architecture Generation for Embedded MPSoC.* ACM 5th Workshop on Mapping of Applications to MPSoCs (Map2MPSoC/SCOPES 2012), St. Goar, Germany, May 2012.

[6] Alexander Biedermann and Sorin A. Huss. *FripGa: A Prototypical Design Tool for Embedded Multi-Core System-on-Chip Architectures.* IEEE/ACM Design, Automation and Test in Europe, DATE'12, University Booth, Dresden Germany, March 2012.

[7] Alexander Biedermann and Sorin A. Huss. *Scalable Multi-Core Virtualization for Embedded System-on-Chip Architectures.* IEEE/ACM Design, Automation and Test in Europe, DATE'12, Friday Workshop: Quo Vadis, Virtual Platforms? Dresden, Germany, January 2012.

[8] Alexander Biedermann, Thorsten Piper, Lars Patzina, Sven Patzina, Sorin A Huss, Andy Schürr and Neeraj Suri. *Enhancing FPGA Robustness via Generic Monitoring IP Cores*. International Conference on Pervasive and Embedded Computing and Communication Systems, Vilamoura, Portugal, March 2011.

[9] Alexander Biedermann, Marc Stoettinger, Lijing Chen and Sorin A. Huss. *Secure Virtualization within a Multi-Processor Soft-core System-on-Chip Architecture.* The 7th

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International Symposium on Applied Reconfigurable Computing, Belfast, UK, March 2011.

[10] Alexander Biedermann and H. Gregor Molter (Eds.). *Design Methodologies for Secure Embedded Systems*, volume 78. of Lecture Notes in Electrical Engineering. Springer, Berlin, Germany, November 2010.

[11] André Seffrin and Alexander Biedermann. *Cellular-Array Implementations of Bio-Inspired Self-Healing Systems: State of the Art and Future Perspectives.* Design Methodologies for Secure Embedded Systems, volume 78. of *Lecture Notes in Electrical Engineering*, Berlin, November 2010.

[12] André Seffrin, Alexander Biedermann and Sorin A. Huss. *Tiny-Pi: A Novel Formal Method for Specification, Analysis, and Verification of Dynamic Partial Reconfiguration Processes.* 13th IEEE Forum on Specification and Design Languages (FDL 2010), Southampton, UK, September 2010.

[13] Marc Stoettinger, Alexander Biedermann and Sorin A. Huss. *Virtualization within a Parallel Array of Homogeneous Processing Units.* 6th International Symposium on Applied Reconfigurable Computing, Bangkok, Thailand, March 2010.

[14] Felix Madlener, Sorin A. Huss and Alexander Biedermann. *RecDEVS: A Comprehensive Model of Computation for Dynamically Reconfigurable Hardware Systems.* 4th IFAC Workshop on Discrete-Event System Design (DESDes'09), Gandia, Spain, October 2009.

List of supervised Theses

Master Theses, Diploma Theses, and Bachelor Theses

[1] Randolph Lieding. *Dynamic Task Switching in a virtualizable Multi-Processor System.* Bachelor Thesis, TU Darmstadt, April 2014.

[2] Antonio Gavino Casu. *Power-Optimierung von Soft-Core-Prozessor-Virtualisierung.* Bachelor Thesis, TU Darmstadt, December 2013.

[3] Boris Dreyer. *Dynamisches Rekonfigurationsnetzwerk zur wechselseitigen Rekonfiguration heterogener, verteilter eingebetteter Systeme.* Master Thesis, TU Darmstadt, October 2013.

[4] Andreas Rjasanow. *Selbstheilende Strukturen in virtualisierbaren Multiprozessor-System-on-Chip-Architekturen.* Master Thesis, TU Darmstadt, June 2013.

[5] Steffen Fleckenstein. *Massiv-parallele Videofilterung für FPGA-Boards.* Bachelor Thesis, TU Darmstadt, April 2012.

[6] Wei Lin. *Virtualisierung von Soft-Core-Prozessoren.* Diplomarbeit, TU Darmstadt, January 2012.

[7] Matthias Zöllner. *Modellierung von Parallelisierungsstrukturen für sequenzielle Algorithmen in C.* Bachelor Thesis, TU Darmstadt, January 2012.

[8] Tobias Rückelt. *Implementierung eines Sensorsystems als Beispielapplikation für generisches FPGA-Monitoring.* Bachelor Thesis, TU Darmstadt, July 2011.

[9] Clemens Bergmann. *Design einer dynamisch rekonfigurierbaren FPGA-Architektur.* Bachelor Thesis, TU Darmstadt, May 2011.

[10] Maik Görtz. *FripGa - Software zur Codegenerierung von Many-Core-Architekturen auf FPGAs.* Master Thesis, TU Darmstadt, March 2011.

[11] Jan Post. *Implementierung und Evaluation eines massiv-parallelen Bildskalierungsfilters auf einem FPGA.* Bachelor Thesis, TU Darmstadt, February 2011.

[12] Andreas Rjasanow and Gregor Rynkowski. *Verteilte Triple-Voted-TMR-Architektur auf FPGA-Boards.* Bachelor Thesis, TU Darmstadt, February 2010.

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Final Theses ("Studienarbeiten") and Practical Courses

[1] Matthias Zöllner. *Parallelisierungstechniken für sequentiellen Code.* Final Thesis, TU Darsmtadt, February 2014.

[2] Boris Dreyer. *Kommunikation in einem virtualisierbaren MPSoC.* Practical Course, TU Darmstadt, January 2014.

[3] Boris Dreyer. *Entwurf eines JTAG-eACE-Players für Mikroprozessor-basierte Systeme.* Final Thesis, TU Darmstadt, November 2013.

[4] Kevin Luck. *Ein virtualisierbares Automotive MPSoC.* Final Thesis, TU Darmstadt, May 2013.

[5] Nicolas Eicke, Sebastian Funke, Kai Schwierczek and Markus Tasch. *Framework zur Modellierung verteilter, paralleler eingebetteter HW/SW-Designs.* Practical Course, TU Darmstadt, October 2012.

[6] Wei Lin. *Ein skalierbares Multi-Processor System-on-Chip zur Taskvirtualisierung.* Practical Course, TU Darmstadt, October 2012.

[7] Tobias Rückelt. *Graphischer Editor für Models of Computation.* Final Thesis, TU Darmstadt, October 2012.

[8] Wei Lin. *Implementierung und HW/SW-Partitionierung eines skalierbaren, verteilten FIR-Filters.* Practical Course, TU Darmstadt, July 2012.

[9] Kevin Luck. *Glue Logic für Board-zu-Board-Kommunikation.* Practical Course, TU Darmstadt, July 2012.

[10] Antonio Gavino Casu, Kadir Inac, Randolph Lieding, Mischa Lundberg and Daniel Schneider. *Virtualisierung in eingbetteten Multi-Prozessor-Systemen.* Practical Course, TU Darmstadt, April 2012.

[11] Michael Koch, Niels Ströher, Lucas Rothamel and Manuel Weiel. *Framework zur Modellierung verteilter, paralleler eingebetteter HW/SW-Designs.* Practical Course, TU Darmstadt, April 2012.

[12] Andreas Rjasanow. *Generischer Monitoring-IP-Core für FPGAs.* Final Thesis, TU Darmstadt, April 2012.

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[15] Hieu Ha Chi, Dan Le, Do Thanh Tung and Binh Vu Duc. *Graphisches Tool für parallelisierte HW/SW-FPGA-Designs.* Practical Course, TU Darmstadt, September 2011.

[16] Quoc Hien Dang, Johannes Decher, Thorsten Jacobi and Omid Pahlevan Sharif. *Graphisches Tool für parallelisierte HW/SW-FPGA-Designs.* Practical Course, TU Darmstadt, September 2011.

[17] Michael Koch, Niels Ströher, Lucas Rothamel and Manuel Weiel. *Graphisches Tool für parallelisierte HW/SW-FPGA-Designs.* Practical Course, TU Darmstadt, September 2011.

[18] Clemens Bergmann. *Attacken auf Android-Smartphones.* Practical Course, TU Darmstadt, June 2011.

[19] Peter Glöckner, Amir Naseri, Johannes Simon and Matthias Zöllner. *Framework für massiv-parallele Systeme in heterogenen FPGA-Netzwerken.* Practical Course, TU Darmstadt, April 2011.

[20] Christopher Huth. *Methodiken zur Bewertung der Güte von Security-USB-Token.* Practical Course, TU Darmstadt, October 2010.

[21] Tobias Rückelt. *Entwicklung eines redundanten Temperatursensors.* Practical Course, TU Darmstadt, October 2010.

[22] Christopher Huth. *Man-in-the-PC-Attacke auf einen Banking-USB-Stick.* Semesterarbeit, TU Darmstadt, July 2010.

[23] Joel Njeukam. *Partielle Rekonfiguration für Virtex-5 FPGAs.* Practical Course, TU Darmstadt, April 2010.

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