

Application specific true critical paths identification in sequential circuits

Jürimägi, Lembit; Ubar, Raimund-Johannes; Jenihhin, Maksim; Raik, Jaan; Devadze, Sergei; Oyeniran, Adeboye Stephen 2019 IEEE 25th International Symposium on On-Line Testing and Robust System Design (IOLTS 2019) : 1-3 July 2019, Greece 2019 / p. 299-304 : ill <https://doi.org/10.1109/IOLTS.2019.8854442>

Architectural solutions for high-speed data processing demands of CERN LHC detectors with FPGA and high-level synthesis

Devadze, Sergei; Nielsen, Christine Elizabeth; Mihhailov, Dmitri; Ellervee, Peeter 2024 IEEE Nordic Circuits and Systems Conference (NorCAS) 2024 <https://doi.org/10.1109/NorCAS64408.2024.10752490> [Article at Scopus](#)

Asynchronous fault detection in IEEE P1687 instrument network

Shibin, Konstantin; Devadze, Sergei; Jutman, Artur IEEE 23rd North Atlantic Test Workshop : 14-16 May 2014, Binghampton, New York : proceedings 2014 / p. 73-78 : ill

At-speed self-testing of high-performance pipe-lined processing architectures [Electronic resource]

Gorev, Maksim; Ubar, Raimund-Johannes; Ellervee, Peeter; Devadze, Sergei; Raik, Jaan; Min, Mart 31st Norchip Conference : Vilnius, Lithuania, 11-12 November 2013 : conference program and papers 2013 / p. 1-6 : ill [USB]

Automatic SoC level test path synthesis based on partial functional models

Tšertov, Anton; Ubar, Raimund-Johannes; Jutman, Artur; Devadze, Sergei 2011 Asian Test Symposium (ATS) : New Delhi, India 2011 / p. 532-538 <https://ieeexplore.ieee.org/document/6114730>

Automation of testing beyond the SoCs

Tšertov, Anton; Jutman, Artur; Devadze, Sergei Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK neljanda aastakonverentsi artiklite kogumik : 26.-27. novembril 2010, Essu mõis 2010 / lk. 29-32 : ill

BASTION - board and SoC test instrumentation for Ageing and No Failure Found

Devadze, Sergei MEDIAN Finale : Workshop on Manufacturable and Dependable Multicore Architectures at Nanoscale : November 10-11, 2015, Tallinn, Estonia 2015 / p. 77

A benchmark suite for evaluating the efficiency of test tools

Kruus, Helena; Ubar, Raimund-Johannes; Ellervee, Peeter; Gorev, Maksim; Pesonen, Vadim; Devadze, Sergei; Orasson, Elmet; Brik, Marina; Min, Mart; Annus, Paul; Kruus, Margus; Meigas, Kalju BEC 2012 : 2012 13th Biennial Baltic Electronics Conference : proceedings of the 13th Biennial Baltic Electronics Conference : October 3-5, 2012, Tallinn, Estonia 2012 / p. 85-88 : ill

Bringing research issues into lab scenarios on the example of SoC testing [Electronic resource]

Ubar, Raimund-Johannes; Jutman, Artur; Devadze, Sergei; Wuttke, Heinz-Dietrich International Conference on Engineering Education - ICEE 2007 : September 3-7, 2007, Coimbra, Portugal 2007 / [7] p. : ill. [CD-ROM]
<http://icee2007.dei.uc.pt/proceedings/papers/429.pdf>

CMS drift tubes sector collector relocation phase 1 upgrade [Electronic resource]

Bedoya, C. F.; Jutman, Artur; Shibin, Konstantin; Devadze, Sergei 2015 http://cms.cern.ch/iCMS/jsp/openfile.jsp?type=DN&year=2015&files=DN2015_011.pdf

Collaborative distributed computing in the field of digital electronics testing

Ivask, Eero; Devadze, Sergei; Ubar, Raimund-Johannes Balanced Automation Systems for Future Manufacturing Networks : 9th IFIP WG 5.5 International Conference : BASYS 2010 : Valencia, Spain, July 21-23, 2010 : proceedings 2010 / p. 145-152

Collaborative distributed fault simulation for digital electronic circuits

Ivask, Eero; Devadze, Sergei; Ubar, Raimund-Johannes Intelligent Distributed Computing IV : proceedings of the 4th International Symposium on Intelligent Distributed Computing - IDC 2010 : Tangier, Morocco, September 2010 2010 / p. 67-76

Combinational fault simulation in sequential circuits

Ubar, Raimund-Johannes; Kõusaar, Jaak; Gorev, Maksim; Devadze, Sergei 2015 IEEE International Symposium on Circuits and Systems : 24-27 May 2015, Lisboa, Portugal : [proceedings] 2015 / p. 2876-2879 : ill <https://doi.org/10.1109/ISCAS.2015.7169287>
[Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Computer aided design support of FSM multiplicative decomposition

Sudnitsõn, Aleksander; Devadze, Sergei Proceedings of the IEEE East-West Design & Test Workshop (EWDTW'06) : Sochi, Russia, September 15-19, 2006 2006 / p. 241-246 : ill

Critical path tracing based simulation of transition delay faults

Kõusaar, Jaak; Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan Proceedings of the 8th Annual Conference of the Estonian National Doctoral School in Information and Communication Technologies : December 5-6, 2014, Rakvere 2014 / p. 61-66 : ill

Critical path tracing based simulation of transition delay faults

Kõusaar, Jaak; Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan 2014 17th Euromicro Conference on Digital System Design : DSD 2014 : 27-29 August 2014, Verona, Italy : proceedings 2014 / p. 108-113 : ill

DefSim - the defective IC

Pleskacz, Witold A.; Jutman, Artur; Ubar, Raimund-Johannes; Devadze, Sergei DATE 2007 : Design Automation and Test in Europe : Nice, France, April 16-20, 2007 2007 / p. s96 (2 p.)

Designing reliable cyber-physical systems

Aleksandrowicz, Gadi; Arbel, Eli; Bloem, Roderick; Devadze, Sergei; Jenihhin, Maksim; Jutman, Artur; Raik, Jaan; Shibin, Konstantin Languages, design methods, and tools for electronic system design : selected contributions from FDL 2016 2018 / p. 15-38 : ill https://doi.org/10.1007/978-3-319-62920-9_2 [Conference Proceedings at Scopus](#) [Article at Scopus](#)

Designing reliable cyber-physical systems : overview associated to the special session at FDL'16

Aleksandrowicz, Gadi; Arbel, Eli; Bloem, Roderick; Devadze, Sergei; Jenihhin, Maksim; Jutman, Artur; Raik, Jaan; Shibin, Konstantin The 2016 Forum on Specification & Design Languages : proceedings : Bremen, Germany, September 14-16, 2016 2016 / [8] p. : ill <https://doi.org/10.1109/FDL.2016.7880382>

Digital logic simulation with compressed BDDs

Ubar, Raimund-Johannes; Mironov, Dmitri; Devadze, Sergei; Raik, Jaan Proceedings : 2011 IEEE International Conference on Computer Science and Automation Engineering : June 10-12, 2011, Shanghai, China 2011 / p. 105-109 : ill <https://ieeexplore.ieee.org/document/5952643>

Distributed approach for parallel exact critical path tracing fault simulation

Ivask, Eero; Devadze, Sergei; Ubar, Raimund-Johannes MIXDES 2010 : 17th International Conference "Mixed Design of Integrated Circuits and Systems" : June 24-26, 2010, Wroclaw, Poland 2010 / p. 471-476 : ill

Distributed approach for parallel exact critical path tracing fault simulation

Ivask, Eero; Devadze, Sergei; Ubar, Raimund-Johannes International journal of microelectronics and computer science 2010 / p. 165-174 : ill

Distributed fault simulation with collaborative load balancing for VLSI circuits

Ivask, Eero; Devadze, Sergei; Ubar, Raimund-Johannes Scalable computing : practice and experience 2011 / p. 153-163 : ill

Effective scalable IEEE 1687 instrumentation network for fault management

Jutman, Artur; Shibin, Konstantin; Devadze, Sergei IEEE design & test 2013 / p. 26-35 : ill <https://doi.org/10.1109/MDAT.2013.2278535> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Efficient single-pattern fault simulation on structurally synthesized BDDs

Raik, Jaan; Ubar, Raimund-Johannes; Devadze, Sergei; Jutman, Artur Dependable Computing - EDCC-5 : 5th European Dependable Computing Conference : Budapest, Hungary, April 20-22, 2005 : proceedings 2005 / p. 332-344 : ill

E-learning environment for WEB-based study of testing

Ubar, Raimund-Johannes; Jutman, Artur; Raik, Jaan; Devadze, Sergei; Jenihhin, Maksim; Aleksejev, Igor; Tšepurov, Anton; Tšertov, Anton; Kostin, Sergei; Orasson, Elmet; Wuttke, Heinz-Dietrich Proceedings of the 8th European Workshop on Microelectronics Education : EWME 2010 : Darmstadt, Germany, 10-12 May 2010 2010 / p. 47-52 : ill

E-learning tools for digital test

Devadze, Sergei; Gorjachev, R.; Jutman, Artur; Orasson, Elmet; Rosin, Vjatšeslav; Ubar, Raimund-Johannes Proc. III International Conference "Distance Learning - Educational Sphere of XXI Century" : Minsk, Belorussia, 2003 2003 / p. 336-342

Embedded synthetic instruments for board-level testing

Jutman, Artur; Devadze, Sergei; Aleksejev, Igor; Wenzel, Thomas Proceedings : 2012 17th IEEE European Test Symposium (ETS) : May 28th-June 1st, 2012, Annecy, France 2012 / 1 p. : ill <https://ieeexplore.ieee.org/document/6233044>

Environment for the analysis of functional self-test quality in digital systems

Ubar, Raimund-Johannes; Kostin, Sergei; Kruus, Helena; Aarna, Margit; Devadze, Sergei Proceedings of the Estonian Academy of Sciences 2014 / p. 151-162 : ill https://artiklid.elnet.ee/record=b2673964*est <https://doi.org/10.3176/proc.2014.2.05> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Exact parallel critical path fault tracing to speed-up fault simulation in sequential circuits

Kõusaar, Jaak; Ubar, Raimund-Johannes; Kostin, Sergei; Devadze, Sergei; Raik, Jaan International journal of microelectronics and computer science 2018 / p. 9-18 <https://ijmcs.dmc.pl/web/guest/vol.-9-no.-1> https://ijmcs.dmc.pl/documents/10630/345460/IJMCS_1_2018_2.pdf

Fast extended test access via JTAG and FPGAs

Devadze, Sergei; Jutman, Artur; Aleksejev, Igor; Ubar, Raimund-Johannes International Test Conference 2009 : November 1 - November 6, 2009, Austin Convention Center, Austin, Texas USA : proceedings 2009 / p. 1-7 : ill
<http://dx.doi.org/10.1109/TEST.2009.5355668>

Fast fault simulation for extended class of faults in scan-path circuits

Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan; Jutman, Artur Proceedings : Fifth IEEE International Symposium on Electronic Design, Test and Applications : DELTA 2010 : 13-15 January 2010, Ho Chi Minh City, Vietnam 2010 / p. 14-19
<https://ieeexplore.ieee.org/document/5438717>

Fault management instrumentation network based on IEEE P1687 IJTAG

Shibin, Konstantin; Jutman, Artur; Devadze, Sergei European Test Symposium (ETS), 2013, Avignon, France 2013

Fault simulation of digital systems = Digitaalsüsteemide rikete simuleerimine

Devadze, Sergei 2009 <https://digi.lib.ttu.ee/i/?445> https://www.ester.ee/record=b2508727*est

Fault simulation with parallel critical path tracing for combinational circuits using structurally synthesized BDDs

Devadze, Sergei; Raik, Jaan; Jutman, Artur; Ubar, Raimund-Johannes 7th IEEE Latin American Test Workshop LATW'06 : Buenos Aires, Argentina, March 26th-29th, 2006 : proceedings 2006 / p. 97-102 : ill

Fault simulation with parallel exact critical path tracing in multiple core environment

Gorev, Maksim; Ubar, Raimund-Johannes; Devadze, Sergei 2015 Design, Automation & Test in Europe Conference & Exhibition (DATE) : proceedings 2015 / p. 1180-1185 : ill

FPGA-based embedded virtual instrumentation = FPGA-sisesed virtuaalsed test- ja mõõtevahendid

Aleksejev, Igor 2013 http://www.ester.ee/record=b2927687*est

FPGA-based synthetic instrumentation for board test

Aleksejev, Igor; Jutman, Artur; Devadze, Sergei; Odintsov, Sergei; Wenzel, Thomas Proceedings : International Test Conference 2012 2012 / p. 1-10 : ill <https://ieeexplore.ieee.org/document/6401571>

FSM decomposition software for education and research

Devadze, Sergei; Sudnitsön, Aleksander Proc. IEEE EUROCON 2005 International Conference on Computer as a tool : Belgrade, Serbia & Montenegro 2005 / p. 839-842 <https://ieeexplore.ieee.org/document/1630063>

Functional self-test of high-performance pipe-lined signal processing architectures

Gorev, Maksim; Ubar, Raimund-Johannes; Ellervee, Peeter; Devadze, Sergei; Raik, Jaan; Min, Mart Microprocessors and microsystems 2015 / p. 909-918 : ill <https://doi.org/10.1016/j.micpro.2014.11.002> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hardware/Software co-design in practice : MEMOCODE'08 contest experience

Reinsalu, Uljana; Devadze, Sergei; Jutman, Artur; Tšertov, Anton; Ellervee, Peeter Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kolmanda aastakonverentsi artiklite kogumik : 25.-26. aprill 2008, Voore külalistemaja 2008 / p. 55-58 : ill

Health management for self-aware SoCs based on IEEE 1687 infrastructure

Shibin, Konstantin; Devadze, Sergei; Jutman, Artur; Grabmann, Martin; Pricken, Robin IEEE Design & Test 2017 / p. 27-35 : ill
<https://doi.org/10.1109/MDAT.2017.2750902> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Hierarchical calculation of malicious faults for evaluating the fault-tolerance

Ubar, Raimund-Johannes; Devadze, Sergei; Jenihhin, Maksim; Raik, Jaan; Jervan, Gert; Ellervee, Peeter Proceedings : Fourth IEEE International Symposium on Electronic Design, Test and Applications : [DELTA 2008] : 23-25 January 2008, Hong Kong, SAR, China 2008 / p. 222-227 : ill <https://ieeexplore.ieee.org/document/4459544>

Hierarchical timing-critical paths analysis in sequential circuits

Jürimägi, Lembit; Ubar, Raimund-Johannes; Jenihhin, Maksim; Raik, Jaan; Devadze, Sergei; Kostin, Sergei 2018 IEEE 28th International Symposium on Power and Timing Modeling, Optimization and Simulation (PATMOS 2018) : 2 – 4 July 2018, Spain 2018 / 6 p. : ill <https://doi.org/10.1109/PATMOS.2018.8464176>

High-speed logic level fault simulation

Ubar, Raimund-Johannes; Devadze, Sergei Design and test technology for dependable systems-on-chip 2011 / p. 310-335 : ill
<https://www.igi-global.com/chapter/high-speed-logic-level-fault/51407>

HLS-based optimization of tau triggering algorithm for LHC: a case study

Cherezova, Natalia; Mihhailov, Dmitri; Devadze, Sergei; Jutman, Artur 2022 18th Biennial Baltic Electronics Conference (BEC) 2022 / 6 p. : ill <https://doi.org/10.1109/BEC56180.2022.9935599>

IEEE 1687 compliant ecosystem for embedded instrumentation access and in-field health monitoring

Tšertov, Anton; Jutman, Artur; Shibin, Konstantin; **Devadze, Sergei** IEEE AUTOTESTCON 2018 : National Harbor, September 17-20, 2018 : proceedings 2018 / 9 p.: ill <https://doi.org/10.1109/AUTEST.2018.8532559>

IEEE P1687 IJTAG demonstrator on FPGA

Shibin, Konstantin; Aleksejev, Igor; Jutman, Artur; Devadze, Sergei DATE 2012 University Booth : Design Automation and Test in Europe : Dresden, Germany, March 12-16, 2012 2012 / 1 p. : ill https://www.academia.edu/22101517/IEEE_P1687_IJTAG_demonstrator_on_FPGA

In-system programming of non-volatile memories on microprocessor-centric boards

Tšertov, Anton; Devadze, Sergei; Jutman, Artur; Jasnetski, Artjom International journal of microelectronics and computer science 2014 / p. 25-34 : ill

Invited paper: System-Wide Fault Management based on IEEE P1687 IJTAG

Jutman, Artur; Devadze, Sergei; Aleksejev, Jevgeni 6th International Workshop on Reconfigurable Communication-centric Systems-on-Chip (ReCoSoC) : 20-22 June 2011, Montpellier, France 2011 / [4] p.: ill <https://ieeexplore.ieee.org/document/5981520>

Java technology based training system for teaching digital design and test

Devadze, Sergei; Jutman, Artur; Sudnitsõn, Aleksander; Ubar, Raimund-Johannes; Wuttke, Heinz-Dietrich BEC 2002 : proceedings of the 8th Biennial Baltic Electronics Conference : October 6-9, 2002, Tallinn, Estonia 2002 / p. 283-286 : ill

Keynote: cost-efficient reliability for Edge-AI chips

Jenihhin, Maksim; Taheri, Mahdi; Cherezova, Natalia; Ahmadilivani, Mohammad Hasan; Selg, Hardi; Jutman, Artur; Shibin, Konstantin; Tsertov, Anton; Devadze, Sergei; Kodamanchili, Rama Mounika; Rafiq, Ahsan; Raik, Jaan; Daneshtalab, Masoud 2024 IEEE 25th Latin American Test Symposium (LATS) 2024 / 2 p <https://doi.org/10.1109/LATS62223.2024.10534610> [Article at Scopus](#)

Learning digital test and diagnostics via internet

Ubar, Raimund-Johannes; Jutman, Artur; Kruus, Margus; Orasson, Elmet; Devadze, Sergei; Wuttke, Heinz-Dietrich International journal of online engineering 2007 / 1, [9] p. : ill https://www.db-thueringen.de/servlets/MCRFileNodeServlet/dbt_derivate_00032681/iJOE_1681-1221_03_2007_1_361.pdf

Learning digital test and diagnostics via internet [Electronic resource]

Ubar, Raimund-Johannes; Jutman, Artur; Kruus, Margus; Orasson, Elmet; Devadze, Sergei; Wuttke, Heinz-Dietrich International journal of computing & information sciences 2006 / 2, p. 86-96 : ill

Marginal PCB assembly defect detection on DDR3/4 memory bus

Odintsov, Sergei; Jutman, Artur; Devadze, Sergei 2017 IEEE International Test Conference (ITC 2017) : Forth Worth, Texas, USA, 31 October - 2 November 2017 2017 / p. 238-247 : ill <https://doi.org/10.1109/TEST.2017.8242070> [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Microprocessor modeling for board level test access automation

Devadze, Sergei; Jutman, Artur; Tšertov, Anton; Ubar, Raimund-Johannes Proceedings of 10th IEEE Workshop on RTL and High Level Testing : Hong Kong, November 27-28, 2009 2009 / ? p

Microprocessor-based system test using debug interface

Devadze, Sergei; Jutman, Artur; Tšertov, Anton; Instenberg, Martin; Ubar, Raimund-Johannes 26th Norchip Conference : Tallinn, Estonia, 17-18 November 2008 : formal proceedings 2008 / p. 98-101 : ill <http://dx.doi.org/10.1109/NORCHIP.2008.4738291>

On coverage of timing related faults at board level

Jutman, Artur; Aleksejev, Igor; Devadze, Sergei 2016 21st IEEE European Test Symposium (ETS) : May 23rd-26th 2016, Amsterdam, The Netherlands : proceedings 2016 / [2] p. : ill <https://doi.org/10.1109/ETS.2016.7519295>

On in-system programming of non-volatile memories

Tšertov, Anton; Devadze, Sergei; Jutman, Artur; Jasnetski, Artjom Proceedings of the 20th International Conference Mixed Design of Integrated Circuits and Systems : MIXDES 2013, Gdynia, Poland, June 20-22, 2013 2013 / p. 408-413 : ill

On in-system programming of non-volatile memories

Tšertov, Anton; Devadze, Sergei; Jutman, Artur; Jasnetski, Artjom International journal of microelectronics and computer science 2013 / p. 72-78 : ill

On-line fault classification and handling in IEEE1687 based fault management system for complex SoCs

Shibin, Konstantin; Devadze, Sergei; Jutman, Artur LATS 2016 : 17th IEEE Latin-American Test Symposium, Foz do Iguacu, Brazil, 6th-9th April 2016 2016 / p. 69-74 : ill <https://doi.org/10.1109/LATW.2016.7483342>

Open-source JTAG simulator bundle for labs

Shibin, Konstantin; Devadze, Sergei; Rosin, Vjatšeslav; Jutman, Artur; Ubar, Raimund-Johannes International journal of

Optimization of boundary scan tests using FPGA-based efficient scan architectures

Aleksejev, Igor; Devadze, Sergei; Jutman, Artur; Shibin, Konstantin Journal of electronic testing : theory and applications (JETTA) 2016 / p. 245-255 : ill <https://doi.org/10.1007/s10836-016-5588-y> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Parallel critical path tracing fault simulation in sequential circuits

Kõusaar, Jaak; Ubar, Raimund-Johannes; Kostin, Sergei; Devadze, Sergei; Raik, Jaan Proceedings of 25th International Conference MIXED DESIGN OF INTEGRATED CIRCUITS AND SYSTEMS : MIXDES 2018 : Gdynia, Poland, June 21–23, 2018 2018 / p. 305-310 : ill <https://doi.org/10.23919/MIXDES.2018.8436880>

Parallel exact critical path tracing fault simulation with reduced memory requirements

Devadze, Sergei; Ubar, Raimund-Johannes; Raik, Jaan; Jutman, Artur 4th International Conference on Design and Technology of Integrated Systems in Nanoscale Era : DTIS'09 : Cairo, Egypt, April 6-9, 2009 2009 / p. 155-160 : ill <https://ieeexplore.ieee.org/document/4938046>

Parallel fault analysis on structurally synthesized BDDs

Devadze, Sergei; Ubar, Raimund-Johannes Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 47-50 : ill

Parallel fault backtracing for calculation of fault coverage

Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan; Jutman, Artur Proceedings of the ASP-DAC 2008 : [13th] Asia and South Pacific Design Automation Conference 2008 : January 21-24, 2008, COEX, Seoul, Korea 2008 / p. 667-672 : ill https://www.researchgate.net/publication/221153650_Parallel_fault_backtracing_for_calculation_of_fault_coverage

Parallel fault backtracing for calculation of fault coverage

Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan; Jutman, Artur 43rd International Conference on Microelectronics, Devices and Materials and the Workshop on Electronic Testing : September 12. - September 14.2007, Bled, Slovenia : MIDE conference 2007 proceedings 2007 / p. 165-170 : ill https://www.researchgate.net/publication/221153650_Parallel_fault_backtracing_for_calculation_of_fault_coverage

Parallel X-fault simulation with critical path tracing technique [Electronic resource]

Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan; Jutman, Artur DATE 10 : Design, Automation & Test in Europe : Dresden, Germany, 8-12 March, 2010 2010 / p. 879-884 [CD-ROM] https://www.researchgate.net/publication/221341788_Parallel_X_fault_simulation_with_critical_path_tracing_technique

Reliable health monitoring and fault management infrastructure based on embedded instrumentation and IEEE 1687

Jutman, Artur; Shibin, Konstantin; Devadze, Sergei IEEE AUTOTESTCON 2016 : Anaheim, California, USA, September 12-15, 2016 : proceedings 2016 / p. 240-249 : ill <https://doi.org/10.1109/AUTEST.2016.7589605>

Run-time reconfigurable instruments for advanced board-level testing

Aleksejev, Igor; Jutman, Artur; Devadze, Sergei IEEE AUTOTESTCON 2016 : Anaheim, California, USA, September 12-15, 2016 : proceedings 2016 / p. 385-392 : ill <https://doi.org/10.1109/AUTEST.2016.7589627>

Run-time reconfigurable instruments for advanced board-level testing

Aleksejev, Igor; Jutman, Artur; Devadze, Sergei IEEE instrumentation & measurement magazine 2017 / p. 23-30 : ill <https://doi.org/10.1109/MIM.2017.8006390>

SoC and board modeling for processor-centric board testing

Tšertov, Anton; Ubar, Raimund-Johannes; Jutman, Artur; Devadze, Sergei 14th Euromicro Conference on Digital System Design : Architectures, Methods and Tools : DSD 2011 : 31 August - 2 September 2011, Oulu, Finland : proceedings 2011 / p. 575-582 : ill <https://ieeexplore.ieee.org/document/6037463>

Software environment for synthesis of testable FSM through decomposition

Devadze, Sergei; Sudnitsõn, Aleksander 2008 26th International Conference on Microelectronics (MIEL 2008) : proceedings 2008 / p. 433-436 <https://ieeexplore.ieee.org/document/4559314>

Structurally synthesized multiple input BDDs for speeding up logic-level simulation of digital circuits

Mironov, Dmitri; Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan; Jutman, Artur 13th Euromicro Conference on Digital System Design : Architectures, Methods and Tools : DSD 2010 : Lille, France, 1-3 September 2010 : proceedings 2010 / p. 658-663 : ill <https://ieeexplore.ieee.org/document/5615526>

A suite of IEEE 1687 benchmark networks

Tšertov, Anton; Jutman, Artur; Devadze, Sergei 2016 IEEE International Test Conference (ITC) : proceedings 2016 / art. 6.1, p. 1-10 : ill <https://doi.org/10.1109/TEST.2016.7805840>

Synchronization, calibration and triggering of IEEE 1687 embedded instruments

Jutman, Artur; Devadze, Sergei; Shibin, Konstantin The Seventeenth Workshop on RTL and High Level Testing (WRTL'16) : November 24-25, 2016, Aki Grand Hotel, Hiroshima, Japan 2016 / [6] p

Synthesis of testable FSM through decomposition

Devadze, Sergei; Sudnitsõn, Aleksander Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kolmanda aastakonverentsi artiklite kogumik : 25.-26. aprill 2008, Voore külalistemaja 2008 / p. 101-104 : ill

System-wide fault management based on IEEE P1687 JTAG

Shibin, Konstantin; Jutman, Artur; Devadze, Sergei Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kuuenda aastakonverentsi artiklite kogumik : 3.-5. oktoobril 2012, Laulasmaa 2012 / p. 81-84 : ill

Teaching digital RT-level self-test using a Java applet

Devadze, Sergei; Jutman, Artur; Sudnitsõn, Aleksander; Ubar, Raimund-Johannes; Wuttke, Heinz-Dietrich 20th IEEE NORCHIP Conference : Copenhagen, Denmark, November 11-12, 2002 2002 / p. 322-328 : ill

Testing beyond the SoCs in a lego style

Tšertov, Anton; Jutman, Artur; Devadze, Sergei Proceedings of IEEE East-West Design & Test Symposium (EWDTS'10) : St. Petersburg, Russia, September 17-20, 2010 2010 / p. 334-338 : ill <https://ieeexplore.ieee.org/document/5742052>

Trainer 1149: a boundary scan simulation bundle for labs

Jutman, Artur; Ubar, Raimund-Johannes; Devadze, Sergei; Shibin, Konstantin; Rosin, Vjatšeslav MIXDES 2011 : 18th International Conference "Mixed Design of Integrated Circuits and Systems" : June 16-18, 2011, Gliwice, Poland 2011 / p. 520-525

Transition delay fault simulation with parallel critical path back-tracing and 7-valued algebra

Kõusaar, Jaak; Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan Microprocessors and microsystems 2015 / p. 1130-1138 : ill <https://doi.org/10.1016/j.micpro.2015.05.003> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Turning JTAG inside out for fast extended test access

Devadze, Sergei; Jutman, Artur; Aleksejev, Igor; Ubar, Raimund-Johannes 10th IEEE Latin American Test Workshop : 2-5 March 2009, Brazil 2009 / [6] p. : ill <https://ieeexplore.ieee.org/document/4813799>

Ultra fast parallel fault analysis on structurally synthesized BDDs

Ubar, Raimund-Johannes; Devadze, Sergei; Raik, Jaan; Jutman, Artur 12th IEEE European Test Symposium ETS 2007 : 20-24 May 2007, Freiburg, Germany : proceedings 2007 / p. 131-136 : ill <http://dx.doi.org/10.1109/ETS.2007.43>

Understanding boundary scan test with Trainer 1149

Jutman, Artur; Devadze, Sergei; Shibin, Konstantin; Rosin, Vjatšeslav; Ubar, Raimund-Johannes 22nd EAAEIE annual conference : June, 13-15, 2011, Maribor, Slovenija : conference book 2011 / p. 21-22 <https://ieeexplore.ieee.org/document/6165727>

Ways for board and system test to benefit from FPGA embedded instrumentation

Ehrenberg, Heiko; Odintsov, Sergei; Devadze, Sergei; Jutman, Artur; Aleksejev, Igor; Wenzel, Thomas 2019 IEEE AUTOTESTCON 2019 / 10 p : ill <https://doi.org/10.1109/AUTOTESTCON43700.2019.8961057>

Web based tools for synthesis and testing of digital devices

Devadze, Sergei; Jutman, Artur; Kruus, Margus; Sudnitsõn, Aleksander; Ubar, Raimund-Johannes Proceedings of the International Conference on Computer Systems and Technologies (e-Learning) : CompSysTech'2002, Sofia, Bulgaria, 20-21 June 2002 / p. 1.9-1 - 1.9-6 : ill https://www.researchgate.net/publication/250738271_Web_Based_Tools_for_Synthesis_and_Testing_of_Digital_Devices

Web-based computer aided design support of finite state machine additive decomposition for low power

Sudnitsõn, Aleksander; Devadze, Sergei 5th IEEE East-West Design & Test International Symposium 2007 / p. 494-498

Web-based software implementation of finite state machine decomposition for design and education

Devadze, Sergei; Kruus, Margus; Sudnitsõn, Aleksander CompSysTech' 2001 : proceedings of the International Conference on Computer Systems and Technologies, Sofia, 21-22 June 2001 2001 / [6] p. : ill https://pld.ttu.ee/decomposition/publications/Sudnitson_CST_Estonia.pdf

Web-based system for sequential machines decomposition

Devadze, Sergei; Fomina, Jelena; Kruus, Margus; Sudnitsõn, Aleksander The IEEE Region 8 EUROCON 2003 : Computer as a Tool : 22-24. September 2003, Ljubljana, Slovenia : proceedings. Volume A 2003 / p. 57-61 : ill https://pld.ttu.ee/decomposition/publications/Sudnitson-EUROCON_v5%20_1_.pdf

Web-based training system for teaching basics of RT-level digital design, test, and design for test [Electronic resource]

Devadze, Sergei; Jutman, Artur; Sudnitsõn, Aleksander; Ubar, Raimund-Johannes 9th International Conference MIXDES

2002 : Mixed Design of Integrated Circuits and Systems, Wroclaw, Poland, 20-22 June 2002 2002 / [6] p. : ill. [CD-ROM]

Web-based training system for teaching digital design and test

Devadze, Sergei 7th International Student Conference on Electrical Engineering : POSTER2003 : May 22, 2003, Prague, Czech Republic 2003 / p. IC6

Virtual reconfigurable scan-chains on FPGAs for optimized board test

Aleksejev, Igor; Jutman, Artur; Devadze, Sergei; Shibin, Konstantin 2015 16th Latin American Test Symposium (LATS 2015) : Puerto Vallarta, Mexico, 25-27 March 2015 2015 / [6] p. : ill <http://dx.doi.org/10.1109/LATW.2015.7102411>