

An automatic approach to evaluate assertions' quality based on data-mining metrics

Ghasempouri, Tara; Niazmand, Behrad; Raik, Jaan Proceedings 2nd IEEE International Test Conference in Asia : ITC-Asia 2018, 15-17 August 2018, Harbin, China 2018 / p. 61-66 : ill <https://doi.org/10.1109/ITC-Asia.2018.00021>

Application of high-level decision diagrams for simulation-based verification tasks

Jenihhin, Maksim; Raik, Jaan; Tšepurov, Anton; Ubar, Raimund-Johannes Estonian journal of engineering 2010 / 1, p. 56-77 : ill

Approaches to extra-functional verification of security and reliability aspects in hardware designs = Riistvaraprojektide turva- ja töökindlusaspektide ekstrasfunktsionaalse verifitseerimise lähenemisviisid

Lai, Xinhui 2022 <https://doi.org/10.23658/taltech.29/2022> <https://digikogu.taltech.ee/et/Item/cff1aeb9-b0b2-49ce-b81a-bfb9dc25fd56>
https://www.ester.ee/record=b5502807*est

ARTmine : automatic association rule mining with temporal behavior for hardware verification

Heidari Iman, Mohammad Reza; Jervan, Gert; Ghasempouri, Tara 2024 Design, Automation & Test in Europe Conference & Exhibition (DATE) : Valencia, Spain, 25-27 March 2024 : proceedings 2024 / p. 1-6 : ill <https://ieeexplore.ieee.org/document/10546742>
<https://doi.org/10.23919/DATE58400.2024.10546742> [Conference proceeding at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Assertion checking with PSL and high-level decision diagrams

Jenihhin, Maksim; Raik, Jaan; Tšepurov, Anton; Ubar, Raimund-Johannes Digest of papers IEEE 8th Workshop on RTL and High Level Testing : WRTL'T07 : October 12-13, 2007, Beijing, China 2007 / p. 105-110 : ill
https://pld.ttu.ee/~maksim/phd_papers/%5B12%5D%20wrtl%2707.pdf

An automated method for mining high-quality assertion sets

Heidari Iman, Mohammad Reza; Raik, Jaan; Jenihhin, Maksim; Jervan, Gert; Ghasempouri, Tara Microprocessors and microsystems 2023 / art. 104773 <https://doi.org/10.1016/j.micpro.2023.104773> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Autonomous driving validation and verification using digital twins

Pikner, Heiko; Malayjerdi, Mohsen; Bellone, Mauro; Baykara, Baris Cem; Sell, Raivo Proceedings of the 10th International Conference on Vehicle Technology and Intelligent Transport Systems - VEHITS ; Vol. 1 2024 / p. 204-211
<https://doi.org/10.5220/0012546400003702> [Conference Proceeding at Scopus](#) [Article at Scopus](#)

Autonomous vehicle for industry 5.0 : Digital twin for system safety validation

Sell, Raivo; Malayjerdi, Mohsen; Malayjerdi, Ehsan; Bellone, Mauro; Pikner, Heiko Proceedings of the 11th International Conference on Vehicle Technology and Intelligent Transport Systems VEHITS ; Vol. 1 2025 / p. 660-667
<https://doi.org/10.5220/0013476600003941>

Between qualification and certification : specifying and verifying model transformations in an embedded code generator

Toom, Andres Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK neljanda aastakonverentsi artiklite kogumik : 26.-27. novembril 2010, Essu mõis 2010 / lk. 109-112 : ill

Code coverage analysis on high level decision diagrams

Reinsalu, Uljana Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 56-59 : ill

Comparison of different expert system verification criteria

Tepandi, Jaak Abstracts of ECAI'90 Workshop on Verification and Test of Knowledge-Based Systems, Stockholm, August 7, 1990 1990

Comparison of different expert system verification criteria

Tepandi, Jaak Validation, verification, and test of knowledge-based systems 1991 / p. 49-62

Component based development of hybrid control systems

Vain, Jüri; Kuusik, Alar; Kääramees, Marko Proceedings of the 15th International Conference on CAD/CAM, Robotics & Factories of the Future CARSAMPFOF'99 : August 18-20, 1999, Aguas de Lindoia, Brasil. Vol. 2 1999 / p. RW5-1 - RW5-6
https://www.researchgate.net/publication/2611129_Component_Based_Development_of_Hybrid_Control_Systems

Data exchange for shared situation awareness

Preden, Jürjo-Sören; Mötus, Leo; Pahtma, Raido; Meriste, Merik CogSIMA 2012 : 2012 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support : [proceedings] 2012 / p. 198-201 : ill
<https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6188380>

Development and verification of control and protection algorithms for the special purpose high power converters

Roasto, Indrek; Vinnikov, Dmitri; Vodovozov, Valery Intelligent Technologies in Logistics and Mechatronics Systems : ITELMS'2008 : proceedings of the 3rd International Workshop : May 22-23, 2008, Panevėžys, Lithuania 2008 / p. 23-27 : ill

Development of a validation regime for an autonomous campus shuttle

Medrano-Berumen, Christopher; **Malayjerdi, Mohsen**; Ilhan Akbas, Mustafa; **Sell, Raivo** IEEE SoutheastCon 2020, Raleigh, NC, 28-29 March 2020 : IEEE Region 3's annual conference : virtual : proceedings 2020 / 8 p
<https://doi.org/10.1109/SoutheastCon44009.2020.9249692>

Diagnosis and correction of multiple design errors using critical path tracing and mutation analysis

Hantson, Hanno; **Repinski, Urmaz**; **Raik, Jaan**; **Jenihhin, Maksim**; **Ubar, Raimund-Johannes** LATW 2012 : 13th IEEE Latin-American Test Workshop proceedings : April 10th-13th, 2012, Quito, Ecuador 2012 / [6 p.] : ill
<https://ieeexplore.ieee.org/document/6261234>

Enhancing assertion-based verification in hardware designs through data mining algorithms = Andmekaeve algoritmid kasutamine riistvarasüsteemide väidete-põhise verifitseerimise parendamiseks

Heidari Iman, Mohammad Reza 2024 <https://digikogu.taltech.ee/et/Item/622f3660-e890-454d-aa85-7cc505557f77>
<https://doi.org/10.23658/taltech.37/2024> https://www.ester.ee/record=b5694015*est

Experiments with travelling wave transients for verification of suitability of sensor

Kütt, Lauri; **Järvik, Jaan** 11th International Symposium "Topical Problems in the Field of Electrical and Power Engineering." Doctoral School of Energy and Geotechnology II : Pärnu, Estonia, January 16-21, 2012 2012 / p. 149-152 : ill

Exploiting aspects in model-based testing

Sarna, Külli; **Vain, Jüri** FOAL'12 : proceedings of the eleventh workshop on Foundations of Aspect-Oriented Languages : March 26, 2012, Potsdam, German 2012 / p. 45-47 : ill https://www.researchgate.net/publication/254007794_Exploiting_aspects_in_model-based_testing

Fault simulation and code coverage analysis of RTL designs using high-level decision diagrams = Rikete simuleerimine ja koodikatte analüüs register-siirde tasemel kasutades kõrgtaseme otsustusdiagramme

Reinsalu, Uljana 2013 https://www.ester.ee/record=b2963595*est

Formal Techniques for Networked and Distributed Systems - FORTE 2007 : 27th IFIP WG 6.1 International Conference : Tallinn, Estonia, June 27-29, 2007 : proceedings

Derrick, John; **Vain, Jüri** 2007 https://www.ester.ee/record=b2286028*est

Formal verification and error correction on high-level decision diagrams = Formaalne verifitseerimine ja vigade parandamine kõrgtasemelistel otsustusdiagrammidel

Karputkin, Anton 2012

Formal verification of COLREG-Based Navigation of maritime autonomous systems

Shokri-Manninen, Fatima; **Vain, Jüri**; Walden, Marina Software Engineering and Formal Methods : 18th International Conference, SEFM 2020, Amsterdam, The Netherlands, September 14-18, 2020 : Proceedings 2020 / p. 41-59 https://doi.org/10.1007/978-3-030-58768-0_3 [Conference Proceedings at Scopus](#) [Article at Scopus](#) [Conference Proceedings at WOS](#) [Article at WOS](#)

Formal verification of the binary exponential backoff protocol

Hooman, Jozef Proceedings of the Estonian Academy of Sciences. Engineering 1998 / 2, p. 89-105

A framework for modelling, verification and transformation of concurrent imperative programs

Bortin, Maksym arXiv.org 2020 / 57 p <https://arxiv.org/abs/2007.02261> <https://doi.org/10.48550/arXiv.2007.02261>

A global survey of standardization and industry practices of automotive cybersecurity validation and verification testing processes and tools

Roberts, Andrew James; Marksteiner, Stefan; Soyuturk, Mujdat; Yaman, Berkay; Yang, Yi SAE international journal of connected and automated vehicles 2023 / art. 12-07-02-0013 <https://doi.org/10.4271/12-07-02-0013> [Journal metrics at Scopus](#) [Article at Scopus](#)

Hardware modeling for design verification and debug = Riistvara modelleerimine disaini verifitseerimise ja silumise jaoks

Tšepurov, Anton 2013 https://www.ester.ee/record=b2963501*est

A hierarchical approach for devising area efficient concurrent online checkers

Niazmand, Behrad; **Azad, Siavoosh Payandeh**; **Ghasempouri, Tara**; **Raik, Jaan**; **Jervan, Gert** Proceedings 2nd IEEE International Test Conference in Asia : ITC-Asia 2018, 15-17 August 2018, Harbin, China 2018 / p. 139-144 : ill
<https://doi.org/10.1109/ITC-Asia.2018.00034>

Integration of iUML-B and UPPAAL timed automata for development of real-time systems with concurrent processes

Shokri-Manninen, Fatima; **Tsiopoulos, Leonidas**; **Vain, Jüri**; Walden, Marina Rigorous State-Based Methods 7th International Conference, ABZ 2020, Ulm, Germany, May 27-29, 2020 : proceedings 2020 / p. 186-202 https://doi.org/10.1007/978-3-030-48077-6_13 [Conference proceedings at Scopus](#) [Article at Scopus](#)

Intelligent support for expert system verification and testing in object-oriented programming environments : (preprint)

Trausan-Matu, S.; **Tepandi, Jaak**; Barbuceanu, M. 1990

ISS seminar disaini verifitseerimisest ja testimise automatiseerimisest

Tammemäe, Kalle Arvutustehnika ja Andmetöötlus 1997 / 7/8, lk. 47-52

Issues in verification of distributed rule bases

Tepandi, Jaak ISAT '91 1991 / p. 164-174

Memory arbiter synthesis and verification for a radar memory interface card

Ernits, Juhan-Peep Nordic journal of computing 2005 / 2, p. 68-88 <https://homes.cs.aau.dk/~kgj/AMETIST/Year3/ernits.pdf>

A methodology for automated mining of compact and accurate assertion sets

Heidari Iman, Mohammad Reza; Raik, Jaan; Jenihhin, Maksim; Jervan, Gert; Ghasempouri, Tara 2021 IEEE Nordic Circuits and Systems Conference (NorCAS) : Oslo, Norway, October 26-27 2021 / 7 p. : ill <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=9599865> <https://doi.org/10.1109/NorCAS53631.2021.9599865>

Mikk Raud: Eestil on aeg oma kiibipotentsiaal ellu äratada

Arjakas, Merili diplomaatia.ee 2023

Model verification for analysis of wind power impact to transient stability in isolated power system using combined relay protection and dynamics modelling approach

Maripuu, Rain; Tsernobrovkin, Oleg; Palu, Ivo; Kilter, Jako PQ2012 : 8th International Conference : 2012 Electric Power Quality and Supply Reliability : June 11-13, 2012, Tartu, Estonia : conference proceedings 2012 / p. 169-174 : ill <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=6256222>

A model-based approach for design and verification of Industrial Internet of Things

Muthukumar, Natarajan; Srinivasan, Seshadhri; Ramkumar, Kannan; **Pal, Deepak; Vain, Jüri**; Ramaswamy, Srini Future generation computer systems 2019 / p. 354-363 : ill <https://doi.org/10.1016/j.future.2018.12.012> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Model-based verification with error localization and error correction for C designs

Repinski, Urmas Программные продукты и системы = Programnye produkty i sistemy = Software & systems 2012 / p. 221-229 : ill

Multi-modal biometric system security and privacy

Essen, Akim; Sorell, Matthew; **Maennel, Olaf Manuel** Proceedings of the 5th Interdisciplinary Cyber Research Conference 2019 : 29th of June 2019, Tallinn University of Technology 2019 / p. 30-32 https://www.ester.ee/record=b5238490*est

Mutation-based verification and error correction in high-level designs = Mutatsioonidel põhinev verifitseerimine ja vigade parandamine kõrgtaseme skeemides

Hantson, Hanno 2015 https://www.ester.ee/record=b4518212*est

On reusability of verification assertions for testing

Jenihhin, Maksim; Raik, Jaan Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK kolmanda aastakonverentsi artiklite kogumik : 25.-26. aprill 2008, Voore külalistemaja 2008 / p. 43-46 : ill

On reusability of verification assertions for testing

Jenihhin, Maksim; Raik, Jaan; Ubar, Raimund-Johannes; Tšepurov, Anton BEC 2008 : 2008 International Biennial Baltic Electronics Conference : proceedings of the 11th Biennial Baltic Electronics Conference : Tallinn University of Technology : October 6-8, 2008, Tallinn, Estonia 2008 / p. 151-154 : ill

On the use of defensive schemes for hardware security = Kaitseskeemid riistvara turvalisuse tagamiseks

Eslami, Mohammad 2024 https://www.ester.ee/record=b5701420*est <https://doi.org/10.23658/taltech.53/2024> <https://digikogu.taltech.ee/et/Item/068530be-4810-4489-9604-fb838d298b45>

On verification of the software development process

Kumlander, Deniss Innovations and advances in computing, informatics, systems sciences, networking and engineering 2015 / p. 339-343 https://doi.org/10.1007/978-3-319-06773-5_45 [Article collection metrics at Scopus](#) [Article at Scopus](#)

Processor vulnerability detection with the aid of assertions : RISC-V case study

Heidari Iman, Mohammad Reza; Ahmadi-Pour, Sallar; Drechsler, Rolf; **Ghasempouri, Tara** techrxiv.org 2024 / p. 1-8 : ill <https://doi.org/10.36227/techrxiv.172101134.45466090/v1>

Processor vulnerability detection with the aid of assertions : RISC-V case study

Heidari Iman, Mohammad Reza; Ahmadi-Pour, Sallar; Drechsler, Rolf; **Ghasempouri, Tara** 2024 IEEE Nordic Circuits and Systems Conference, NORCAS 2024 - Proceedings 2024 / 7 p. <https://doi.org/10.1109/NorCAS64408.2024.10752460> [Article at Scopus](#)

Proficiency testing in the area of measuring instruments belonging to verification

Kulderknup, Edi; Laaneots, Rein Proc. 12th International Metrology Congress : Lyon, France 2005 / [6] p

PSL assertion checking using temporally extended high-level decision diagrams

Jenihhin, Maksim; Raik, Jaan; Tšepurov, Anton; Ubar, Raimund-Johannes Journal of electronic testing : theory and applications 2009 / 6, p. 289-300 : ill https://pld.ttu.ee/home/maksim/phd_papers/%5B11%5D%20latw%2708.pdf

PSL assertion checking with temporally extended high-level decision diagrams

Jenihhin, Maksim; Raik, Jaan; Tšepurov, Anton; Ubar, Raimund-Johannes Proceedings of the 9th IEEE Latin-American Test Workshop : LATW2008 : February 17-20, 2008, Puebla, Mexico 2008 / p. 49-54 : ill https://pld.ttu.ee/~maksim/phd_papers/%5B11%5D%20latw%2708.pdf

PSL assertions based verification with HLDD tools

Jenihhin, Maksim Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuuseum 2007 / lk. 17-20 : ill

Reusing verification assertions as security checkers for Hardware Trojan detection

Eslami, Mohammad; Ghasempouri, Tara; Pagliarini, Samuel Nascimento 2022 23rd International Symposium on Quality Electronic Design (ISQED), Santa Clara, CA, USA : 06-07 April 2022 2022 / p. 1-6 : ill <https://doi.org/10.1109/ISQED54688.2022.9806292>

SCARF : securing chips with a robust framework against fabrication-time hardware trojans

Eslami, Mohammad; Ghasempouri, Tara; Pagliarini, Samuel Nascimento IEEE Transactions on Computers 2024 / p. 2761-2775 <https://doi.org/10.1109/TC.2024.3449082> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

SCARF : securing chips with a robust framework against fabrication-time hardware Trojans : preprint

Eslami, Mohammad; Ghasempouri, Tara; Pagliarini, Samuel Nascimento arXiv.org 2024 / 14 p. : ill <https://doi.org/10.48550/arXiv.2402.12162>

A security verification template to assess cache architecture vulnerabilities

Ghasempouri, Tara; Raik, Jaan; Paul, Kolin; Reinbrecht, Cezar; Hamdioui, Said; Taouil, M. 2020 23rd International Symposium on Design and Diagnostics of Electronic Circuits and Systems (DDECS), April 22nd – 24th 2020 Novi Sad, Serbia : Proceedings 2020 / art. 9095707, 6 p <https://doi.org/10.1109/DDECS50862.2020.9095707>

Selected issues of modeling, verification and testing of digital systems

Jutman, Artur 2004 https://www.ester.ee/record=b1989760*est

Self-aware cyber-physical systems

Bellman, K.; Landauer, C.; Dutt, N.; Tammemäe, Kalle ACM transactions on cyber-physical systems 2020 / p. 1-26 <https://doi.org/10.1145/3375716> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Simulation-based hardware verification with high-level decision diagrams = Simuleerimisel põhinev riistvara verifitseerimine kõrgtaseme otsustusdiagrammidel

Jenihhin, Maksim 2008 https://www.ester.ee/record=b2431332*est

Situation awareness for networked systems

Preden, Jürgo-Sören; Mõtus, Leo; Meriste, Merik; Riid, Andri 2011 IEEE International Multi-Disciplinary Conference on Cognitive Methods in Situation Awareness and Decision Support : CogSIMA : Miami, USA, 22-24 Februar 2011 2011 / p. 123-130 : ill

Test driven domain modelling

Piho, Gunnar; Tepandi, Jaak; Parman, Marko; Puusep, Viljam; Roost, Mart MIPRO 2011 : 34th International Convention on Information and Communication Technology, Electronics and Microelectronics : May 23-27, 2011, Opatija, Croatia : proceedings 2011 / p. 576-581 <https://ieeexplore.ieee.org/stamp/stamp.jsp?arnumber=5967121>

Testability analysis of digital design verification

Hahanov, V.; Kaminska, M.; Fomina, Jelena BEC 2006 : 2006 International Baltic Electronics Conference : Tallinn University of Technology, October 2-4, 2006, Tallinn, Estonia : proceedings of the 10th Biennial Baltic Electronics Conference 2006 / p. 171-174 : ill

Towards middleware based situation awareness

Mõtus, Leo; Meriste, Merik; Preden, Jürgo-Sören Military Communications Conference - 2009 : MILCOM 2009 : 18-21 October 2009. 5th IEEE Workshop on Situation Management : SIMA 2009 : Boston, 19-21 October 2009 / [7] p <https://ieeexplore.ieee.org/document/5379986>

Towards reliable code generation with an open tool : evolutions of the gene-auto toolset

Toom, Andres; Izerrouken, N.; **Näks, Tõnu;** Pantel, M.; Ssi Yan Kai, O. 5th International Congress and exhibition ERTS2 2010 : Embedded Real Time Software and Systems : 19-21 May 2010, Toulouse, France 2010 / [10] p <https://hal.science/hal-02267640/document>

Towards reliable code generation with an open tool : evolutions of the Gene-Auto toolset

Toom, Andres; Izerrouken, N.; **Näks, Tõnu;** Pantel, M.; Ssi Yan Kai, O. Ingénieurs de l'Automobile 2010 / p. 29-35
<https://hal.science/hal-02267640/document>

Two phase technique for assembly line balancing

Vain, Jüri; Randvee, Ingmar; **Riismaa, Tiit** Preprints of the 16th IFAC World Congress : Prague, Czech Republic, July 3-8, 2005 2005 / [6] p <https://www.sciencedirect.com/science/article/pii/S1474667016375176>

Two state space reduction techniques for explicit state model checking = Kaks olekuruumi kahandamise tehnikat olekute otseesitusega mudelikontrollis

Ermits, Juhan-Peep 2007 <https://digi.lib.ttu.ee/i/?162>

Understanding multidimensional verification : where functional meets non-functional

Lai, Xinhui; **Balakrishnan, Aneesh;** Lange, Thomas; **Jenihhin, Maksim;** **Ghasempouri, Tara;** **Raik, Jaan;** Alexandrescu, Dan Microprocessors and microsystems 2019 / art. 102867, 13 p. : ill <https://doi.org/10.1016/j.micpro.2019.102867> [Journal metrics at Scopus](#) [Article at Scopus](#) [Journal metrics at WOS](#) [Article at WOS](#)

Using test pattern generation tool decider in hardware verification

Viilukas, Taavi; **Raik, Jaan** Info- ja kommunikatsioonitehnoloogia doktorikooli IKTDK teise aastakonverentsi artiklite kogumik : 11.-12. mai 2007, Viinistu kunstimuseum 2007 / lk. 166-169 : ill

Validation, verification and testing of object-oriented programs

Tepandi, Jaak; Trausan-Matu, S. Studies and researches in computers and informatics 1990 / 1, p. 113-128

Verifiability experiences in government online voting systems

Puiggali, Jordi; Cucurull, Jordi; Guasch, Sandra; **Krimmer, Robert Johannes** Electronic Voting : Second International Joint Conference, E-Vote-ID 2017 : Bregenz, Austria, October 24-27, 2017 : proceedings 2017 / p. 248-263 : ill https://doi.org/10.1007/978-3-319-68687-5_15 [Conference proceedings at Scopus](#) [Article at Scopus](#) [Article at WOS](#)

Verification and error correction on High-Level Decision Diagrams

Karputkin, Anton 2013

Verification formelle des resultats de la synthese de Haut Niveau : [doktoriväitekirj]

Dušina, Julia 1999

Verification of the test quality

Matrosova, Anjela; Bochun, Tatiana BEC'96 : the 5th Biennial Baltic Electronics Conference, October 7-11, 1996, Tallinn, Estonia : proceedings 1996 / p. 307-310: ill

Verification, testing and validation of rule-based expert systems

Tepandi, Jaak Preprints 11th IFAC World Congress "Automatic Control in the Service of Mankind" : Tallinn, Estonia, USSR, August 13-17, 1990. Vol. 7 1990 / p. 162-167

Why quantum state verification cannot be both efficient and secure : a categorical approach

Wiesner, Fabian; **Chaoui, Ziad;** **Kessler, Diana-Maria;** **Pappa, Anna;** **Karvonen, Martti** arXiv.org 2024 / 36 p
<https://doi.org/10.48550/arXiv.2411.04767>

Верификация на основе симуляции с нахождением и исправлением ошибок для С-дизайнов

Repinski, Urmas Программные продукты и системы = Programmnye produkty i sistemy = Software & systems 2012 / с. 229-237 : ил