

Lista lucrărilor științifice

Mihai Udrescu

1 Teza de doctorat

- T **Mihai Udrescu**. *Quantum Circuits Engineering: Efficient Simulation and Reconfigurable Quantum Hardware*, Universitatea Politehnica Timișoara (UPT), 25 noiembrie 2005.

2 Cărți și capitole de carte

- C1 Alexandru Topîrceanu, **Mihai Udrescu**, Mircea Vlăduțiu. Chapter *Genetically Optimized Realistic Social Network Topology Inspired by Facebook*, in *Lecture Notes in Social Networks, Online Social Media Analysis and Visualization*, Jalal Kawash (Ed.), pp. 163-179, Springer, 2014 [ISBN 978-3-319-13590-8]
- C2 **Mihai Udrescu**, Lucian Prodan. *Emerging Computing Systems: Quantum Computing From a Computer Engineering Perspective*, Editura Politehnica Timișoara, 2013 [ISBN 978-606-554-684-4]
- C3 Flavius Oprițoiu, Lucian Prodan, **Mihai Udrescu**. *Aritmetica în sistemele de calcul: probleme de design și implementare*, Editura Politehnica Timișoara, 2013 [ISBN 978-606-554-566-3]
- C4 **Mihai Udrescu**. *Quantum Circuits Engineering*, Editura Politehnica Timișoara, 2009 [ISBN 978-973-625-815-2]

3 Articole indexate ISI Web of Science

3.1 Jurnale ISI WoS

- JISI1 Lucreția Udrescu, Laura Sbârcea, Alexandru Topîrceanu, Alexandru Iovanovici, Ludovic Kurunczi, Paul Bogdan, **Mihai Udrescu**. *Clustering drug-drug interaction networks with energy model layouts: community analysis and drug repurposing*, *Nature Scientific Reports* 6:32745, 2016 [IF=5.228, Q1 – Multidisciplinary sciences]
- JISI2 Alexandru Topîrceanu, Alexandra Duma, **Mihai Udrescu**. *Uncovering the Fingerprint of Online Social Networks Using A Network Motif Based Approach*, *Computer Communications* 73(PartB):167–175, Elsevier, 2016 [IF=2.099, Q2 – Computer Science, Information Systems]
- JISI3 Liana Suci, Carmen Cristescu, Alexandru Topîrceanu, Lucreția Udrescu, **Mihai Udrescu**, Valentina Buda, Mirela Cleopatra Tomescu. *Evaluation of patients diagnosed with essential arterial hypertension through network analysis*, *Irish Journal of Medical Science*, 185(2):443–451, Springer 2016 [IF=1.158]
- JISI4 Alexandru Topîrceanu, **Mihai Udrescu**. *Statistical Fidelity: A Tool to Quantify the Similarity Between Multi-variable Entities with Application in Complex Networks*, *International Journal of Computer Mathematics*, 0(0):1-9, 2016 [IF=0.577]
- JISI5 **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Simulated Fault Injection Methodology for Gate-Level Quantum Circuit Reliability Assessment*, *Simulation Modelling Practice and Theory*, 23(1):60-70, Elsevier 2012 [IF=1.159, Q2 – Computer Science, Software Engineering]
- JISI6 Oana Boncalo, Alexandru Amăricăi, **Mihai Udrescu**, Mircea Vlăduțiu. *Quantum Circuit's Reliability Assessment with VHDL-Based Simulated Fault Injection*, *Microelectronics Reliability*, 50(2):304-311, Elsevier, 2010 [IF=1.137]

JISI7 Lucian Prodan, **Mihai Udrescu**, Oana Boncalo, Mircea Vlăduțiu. *Design for Dependability in Emerging Technologies*, ACM Journal of Emerging Technologies in Computing, 3(2):Article 6, ACM, 2007 [IF=0.759]

3.2 Conferințe ISI WoS

- CISI1 Cristian Coșariu, Alexandru Iovanovici, Lucian Prodan, **Mihai Udrescu**, Mircea Vlăduțiu. *Bio-inspired redistribution of urban traffic flow using a social network approach*, IEEE Congress on Evolutionary Computation, Sendai, Japan, pp. 77-84, 25-28 May, 2015
- CISI2 Alexandru Topîrceanu, **Mihai Udrescu**. *FMNet: Physical Trait Patterns in the Fashion World*, 2nd European Network Intelligence Conference, ENIC, Karlskrona, Sweden, 21-22 Sep, 2015 [Best paper award]
- CISI3 Alexandru Topîrceanu, **Mihai Udrescu**. *Measuring Realism of Social Network Models Using Network Motifs*, 10th Jubilee IEEE International Symposium on Applied Computational Intelligence and Informatics, pp.443-447, Timișoara, România, May 21-23, 2015
- CISI4 **Mihai Udrescu**, Alexandru Topîrceanu. *What drives the emergence of social networks?*, 20th International Conference on Control Systems and Computer Science (CSCS), pp. 999-999, Bucharest, Romania, 27-29 May, 2015
- CISI5 Alexandru Topîrceanu, Dragoș Tiselice, **Mihai Udrescu**. *The Fingerprint of Educational Platforms in Social Media: A Topological Study Using Online Ego-Networks*, International Conference on Social Media in Academia: Research and Teaching (SMART), pp. 355-360, Timișoara, Romania, 18-21 Sep. 2014
- CISI6 Alexandru Topîrceanu, Cezar Fleșeriu, **Mihai Udrescu**. *Gamified: An Effective Approach to Student Motivation Using Gamification*, International Conference on Social Media in Academia: Research and Teaching (SMART), pp. 41-44, Timișoara, Romania, 18-21 Sep 2014
- CISI7 Alexandru Topîrceanu, Gabriel Barina, **Mihai Udrescu**. *MuSeNet: Collaboration in the music artists industry*, 1st European Network Intelligence Conference, ENIC, pp. 89-94, Wroclaw, Poland, 29-30 Sep. 2014
- CISI8 Gabriel Barina, Alexandru Topîrceanu, **Mihai Udrescu**. *MuSeNet: Natural Patterns in the Music Artists Industry*, 9th IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI), pp. 317-322, Timișoara, Romania, 15-17 May 2014
- CISI9 Alexandru Topîrceanu, **Mihai Udrescu**, Mircea Vlăduțiu. *Network Fidelity: A Metric to Quantify the Similarity and Realism of Complex Networks*, 3rd IEEE International Conference on Cloud and Green Computing (CGC), pp. 289-296, Karlsruhe, Germany, Sep 30-Oct 02, 2013
- CISI10 Liviu Agnola, Mircea Vlăduțiu, **Mihai Udrescu**, Lucian Prodan. *Improving performance of robust Self Adaptive Caches by optimizing the switching algorithm*, IEEE 14th International Symposium on Design and Diagnostics of Electronic Circuits & Systems (DDECS), pp. 297-300, Cottbus, Germany, 13-15 Apr, 2010
- CISI11 Cristian Ruican, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu, *Performance Analysis for Genetic Quantum Circuit Synthesis*, Proceedings Artificial Intelligence and Soft Computing (ICAISC 2010), Lecture Notes in Computer Science (Springer), vol. 6114, pp. 205-212, Zakopane, Poland, 13 - 17 Jun, 2010
- CISI12 Cristian Ruican, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Adaptive vs. Self-Adaptive Parameters for Evolving Quantum Circuits*, 9th International Conference on Evolvable Systems: From Biology to Hardware (ICES 2010), York, UK, Lecture Notes in Computer Science (Springer), vol. 6274, pp. 348-359, 6-8 Sep, 2010
- CISI13 Cristian Ruican, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Genetic Algorithm Based Quantum Circuit Synthesis with Adaptive Parameters Control*, IEEE Congress on Evolutionary Computation (CEC 2009), pp. 896-903, Trondheim, Norway, 18-21 May 2009

- CISI14 Flavius Oprițoiu, Mircea Vlăduțiu, **Mihai Udrescu**, Lucian Prodan. *Round-Level Concurrent Error Detection Applied to Advanced Encryption Standard*, 12th IEEE Symposium on Design and Diagnostics of Electronic Systems, pp. 270-275, Liberec, Czech Republic, April 15-17, 2009
- CISI15 Cristian Ruican, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Quantum Circuit Synthesis with Adaptive Parametres Control*, EuroGP2009. European Conference on Genetic Programming (Springer-Verlag Berlin Heidelberg, LNCS), LNCS 5481, pp. 339-350, Tubingen, Germany, 15-17 Apr. 2009
- CISI16 Flavius Oprițoiu, Mircea Vlăduțiu, Lucian Prodan, **Mihai Udrescu**, *Built-In Self Test Applicability for the Non-Linear Operations of Advanced Encryption Standard*, 5th International Symposium on Applied Computational Intelligence and Informatics, pp. 307-312, Timișoara, Romania, May 28-29 2009
- CISI17 Lucian Prodan, **Mihai Udrescu**, Mircea Vlăduțiu. *Fault-Tolerant Memory Design and Partitioning Issues in Embryonics*, Evolvable Systems: From Biology to Hardware. LNCS5216, pp. 372-381, 8th International Conference ICES, Prague, Czech Republic, 21-24 Sep. 2008
- CISI18 Alexandru Amăricăi, Mircea Vlăduțiu, Lucian Prodan, **Mihai Udrescu**, Oana Boncalo. *Floating Point Multiplication Rounding Schemes for Interval Arithmetic*, Proceedings 19th IEEE Conference on Application Specific Systems, Architectures and Processors (ASAP), pp. 19-24, Leuven, Belgium, 2-4 Jul. 2008
- CISI19 Cristian Ruican, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *A Genetic Algorithm Framework Applied to Quantum Circuit Synthesis*, International Workshop on Nature Inspired Cooperative Strategies for Optimization (NICSO'07), pp. 419-429, Acireale, Italy, 8-10 Nov. 2007
- CISI20 Oana Boncalo, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu, Alexandru Amăricăi. *Saboteur Based Fault Injection for Quantum Circuits Fault Tolerance Assessment*, Proceedings 10th EUROMICRO Conference on Digital System Design, Architectures, Methods and Tools (DSD 2007), pp. 634-640, Lübeck, Germany, 29-31 Aug. 2007
- CISI21 Alexandru Amăricăi, Mircea Vlăduțiu, Lucian Prodan, **Mihai Udrescu**, Oana Boncalo. *Exploiting Parallelism in Double Path Adders' Structure for Increased Throughput of Floating Point Addition*, Proceedings 10th EUROMICRO Conference on Digital System Design, Architectures, Methods and Tools (DSD 2007), pp. 132-137, Lübeck, Germany, 29-31 Aug. 2007
- CISI22 Oana Boncalo, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu, Alexandru Amăricăi. *Assessing Quantum Circuits Reliability with Mutant-Based Simulated Fault Injection*, Proceedings 18th European Conference on Circuit Theory and Design (ECCTD'07), pp. 942-945, Seville, Spain, 26-30 Aug. 2007
- CISI23 Alexandru Amăricăi, Mircea Vlăduțiu, Lucian Prodan, **Mihai Udrescu**, Oana Boncalo. *Hardware Support for Combined Interval and Floating Point Multiplication*, Proceedings 14th Mixed Design Of Integrated Circuits and Systems, pp. 278-282, Ciechocinek, Poland, 21-23 Jun. 2007
- CISI24 Alexandru Amăricăi, Mircea Vlăduțiu, Lucian Prodan, **Mihai Udrescu**, Oana Boncalo. *Design of Addition and Multiplication Units for High Performance Interval Arithmetic Processor*, IEEE Workshop on Design and Diagnostics of Electronic Circuits and Systems, pp. 223-226, Krakow, Poland, 11-13 Apr. 2007
- CISI25 Oana Boncalo, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu, Alexandru Amăricăi. *Using Simulated Fault Injection for Fault Tolerance Assessment of Quantum Circuits*, Proceedings IEEE 40th Annual Simulation Symposium, pp. 213-220, Norfolk VA, USA, 26-28 Mar. 2007
- CISI26 Cristian Ruican, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu, *Automatic Synthesis for Quantum Circuits using Genetic Algorithms*, Proceedings ICANNGA'07 "Adaptive and Natural Computing Algorithms", LNCS 4431 (Springer -Verlag Berlin Heidelberg), pp. 174-183, Warsaw, Poland, 11-14 Apr. 2007

- CISI27 Oana Boncalo, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu, Alexandru Amăricăi. *Simulated Fault Injection for Quantum Circuits Based on Simulator Commands*, 4th International Symposium on Applied Computational Intelligence and Informatics (SACI), pp. 245-250, Timișoara, Romania, 17-18 May. 2007
- CISI28 **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Simulated Fault Injection in Quantum Circuits with the Bubble Bit Technique*, in Proceedings ICANNGA, Springer Adaptive and Natural Computing Algorithms, pp. 276-279, Coimbra, Portugal, 21-23 Mar. 2005
- CISI29 Lucian Prodan, **Mihai Udrescu**, Mircea Vlăduțiu. *Multiple-Level Concatenated Coding in Embryonics: A Dependability Analysis*, Proceedings GECCO (ACM/SIGEVO), pp. 941-948, Washington DC, USA, 25-29 Jun, 2005
- CISI30 Lucian Prodan, **Mihai Udrescu**, Mircea Vlăduțiu. *Survivability of Embryonic Memories: Analysis and Design Principles*, Proceedings IEEE NASA/DoD Conference on Evolvable Hardware (EH'05), pp. 280-289, Washington DC, USA, 29-30 Jun. 2005
- CISI31 **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *The Bubble Bit Technique as Improvement of HDL-Based Quantum Circuits Simulation*, Proceedings IEEE 38th Annual Simulation Symposium, pp. 217-224, San Diego CA, USA, 2-8 Apr. 2005
- CISI32 Lucian Prodan, **Mihai Udrescu**, Mircea Vlăduțiu. *Self-Repairing Embryonic Memory Arrays*, Proceedings IEEE NASA/DoD Conference on Evolvable Hardware (EH'04), pp. 130-137, Seattle WA, USA, 24-26 Jun. 2004

4 Articole indexate în baze de date internaționale (BDI)

4.1 Jurnale BDI

- JBDI1 Alexandru Topîrceanu, **Mihai Udrescu**, Mircea Vlăduțiu, Radu Mărculescu. *Tolerance-based interaction: a new model targeting opinion formation and diffusion in social networks*, PeerJ Computer Science 2:e42, 2016 [Scopus]
- JBDI2 Roxana Pleavă, Dan Gaiță, Carmen Ardeleanu, Ștefan Frentz, **Mihai Udrescu**, Lucreția Udrescu, Rodica Dan, Daniela Reisz, Ștefan Mihăicuță. *Obesity in association with Sleep Apnea Syndrome as predictor for coronary-vascular comorbidities*, Pneumologia 65(1):14-18, 2016 [Scopus]

4.2 Conferințe BDI

- CBDI1 **Mihai Udrescu**, Alexandru Topîrceanu. *Probabilistic Modeling of Tolerance-based Social Network Interaction*, 3rd European Network Intelligence Conference, ENIC, pp. 48-54, Wrocław, Poland, 5-7 Sep. 2016 [IEEE Xplore]
- CBDI2 Alexandru Topîrceanu, Jorge Garcia, **Mihai Udrescu**. *UPT.Social: The Growth of a New Online Social Network*, 3rd European Network Intelligence Conference, ENIC, pp. 9-16, Wrocław, Poland, 5-7 Sep. 2016 [IEEE Xplore]
- CBDI3 Alexandru Topîrceanu, **Mihai Udrescu**, Răzvan Avram, Ștefan Mihăicuță. *Data Analysis for Patients with Sleep Apnea Syndrome: A Complex Network Approach*, V.E. Balas et al. (eds.), Soft Computing Applications, Advances in Intelligent Systems and Computing 356, Springer, pp. (231-239), 2016, ISBN 978-3-319-18296-4.
- CBDI4 Alexandru Topîrceanu, Alexandru Iovanovici, Cristian Coșariu, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Social Cities: Redistribution of Traffic Flow in Cities Using a Social Network Approach*, V.E. Balas et al. (eds.), Soft Computing Applications, Advances in Intelligent Systems and Computing 356, Springer, pp. 39-49, 2016 [SpringerLink]
- CBDI5 Alexandru Iovanovici, Alexandru Topîrceanu, **Mihai Udrescu**, Mircea Vlăduțiu. *Heuristic Optimization of Wireless Sensor Networks using Social Network Analysis*, V.E. Balas et al. (eds.), Soft Computing Applications, Advances in Intelligent Systems and Computing 356, Springer, pp. 663-671, 2016 [SpringerLink]

- CBDI6 Alexandru Topîrceanu, Alexandru Iovanovici, **Mihai Udrescu**, Vlăduțiu. *Social cities: Quality assessment of road infrastructures using a network motif approach*, 18th International Conference System Theory, Control and Computing (ICSTCC), pp. 803-808, Sinaia, Romania, 17-19 Oct. 2014 [IEEE Xplore]
- CBDI7 Alexandru Iovanovici, Alexandru Topîrceanu, **Mihai Udrescu**, Mircea Vlăduțiu. *Design space exploration for optimizing wireless sensor networks using social network analysis*, 18th International Conference System Theory, Control and Computing (ICSTCC), pp. 815-820, Sinaia, Romania, 17-19 Oct. 2014 [IEEE Xplore]
- CBDI8 Alexandru Iovanovici, Alexandru Topîrceanu, **Mihai Udrescu**, Lucian Prodan, Ștefan Mi-hăicuță. *A high-availability architecture for continuous monitoring of sleep disorders*, Studies in health technology and informatics Volume: 210, pp. 729-733, 2015 [Scopus]
- CBDI9 Liviu Agnola, Mircea Vlăduțiu, **Mihai Udrescu**, Lucian Prodan, *Simplified selective fault tolerance technique for protection of selected inputs via triple modular redundancy*, 7th IEEE International Symposium on Applied Computational Intelligence and Informatics (SACI), pp. 267-272, Timișoara, Romania, 24-26 May 2012 [IEEE Xplore]
- CBDI10 Liviu Agnola, Mircea Vlăduțiu, **Mihai Udrescu**, Lucian Prodan. *Improving performance and area overhead by reducing the switching table for Self Adaptive cache Memories*, IEEE 17th International Symposium for Design and Technology in Electronic Packaging (SIITME), pp. 173-178, Timișoara, Romania, 20-23 Oct. 2011 [IEEE Xplore]
- CBDI11 Flavius Oprițoiu, Mircea Vlăduțiu, Lucian Prodan, **Mihai Udrescu**. *A High-Speed AES Architecture Implementation*, 7th ACM International Conference on Computing Frontiers (CF'10), pp. 95-96, Bertinoro, Italy, 17-19 May 2010 [ACM, Scopus]
- CBDI12 Flavius Oprițoiu, Mircea Vlăduțiu, **Mihai Udrescu**, Lucian Prodan. *Concurrent Error Detection for Multiplicative Inversion of Advanced Encryption Standard*, 10th IEEE International Conference on Computer and Information Technology (CIT 2010), pp. 582-588, Bradford, UK, 29-30 Jun. 2010 [Scopus]
- CBDI13 Liviu Agnola, Mircea Vlăduțiu, **Mihai Udrescu**. *Self-Adaptive mechanism for cache memory reliability improvement*, IEEE 13th International Symposium on Design and Diagnostics of Electronic Circuits & Systems (DDECS), pp. 117-118, Vienna, Austria, 14-16 Apr. 2010 [IEEE Xplore]
- CBDI14 Oana Boncalo, **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu, Alexandru Amăricăi. *Error-Model Driven Analysis of Quantum Circuit's Reliability*, Proceedings 8th IEEE Conference on Nanotechnology, pp. 103-106, Arlington, USA, Aug. 18-21, 2008 [IEEE Xplore]
- CBDI15 Lucian Prodan, **Mihai Udrescu**, Mircea Vlăduțiu. *A Dependability Perspective on Emerging Technologies*, 3rd ACM International Conference on Computing Frontiers (CF'06), pp. 187-198, Ischia, Italy, 2-5 May 2006 [Scopus, INSPEC]
- CBDI16 **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Implementing Quantum Genetic Algorithms: A Solution Based on Grover's Algorithm*, 3rd ACM International Conference on Computing Frontiers (CF'06), pp. 71-82, Ischia, Italy, 2-5 May 2006 [Scopus, INSPEC]
- CBDI17 Lucian Prodan, **Mihai Udrescu**, Mircea Vlăduțiu. *Reliability Assessment in Embryonics Inspired by Fault-Tolerant Quantum Computation*, Proceedings 2nd ACM International Conference on Computing Frontiers (CF'05), pp. 323-333, Ischia, Italy, 4-6 May 2005 [Scopus, INSPEC]
- CBDI18 **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Improving Quantum Circuit Dependability with Reconfigurable Quantum Gate Arrays*, Proceedings 2nd ACM International Conference on Computing Frontiers (CF'05), pp. 133-144, Ischia, Italy, 4-6 May 2005 [Scopus, INSPEC]
- CBDI19 **Mihai Udrescu**, Lucian Prodan, Mircea Vlăduțiu. *Using HDLs for Describing Quantum Circuits: A Framework for Efficient Quantum Algorithm Simulation*, Proceedings 1st ACM Conference on Computing Frontiers, pp. 96-110, Ischia, Italy, 14-16 Apr. 2004 [Scopus, INSPEC]

