# Veljko Milutinovic's CV

Full Name: Veljko Milutinovic

Date of Birth or Age: May 4, 1951.

#### Title and Primary Current Affiliation(s):

The CEO of IPSI Belgrade, d.o.o. (since march 2003, a spin-off of the German Fraunhofer IPSI Research Institute).

Visiting Professor, University of Beograde, Serbia (elected in 2018), Visiting Professor, University of Kragujevac, Serbia (elected in 2021), Visiting Professor, Technical University of Vienna, Austria (elected in 2018), Adjunct Professor, Technical University of Graz, Austria (elected in 2023), Adjunct Professor, Indiana University, Bloomington, Indiana (elected in 2016), Guest Lecturer, Purdue University, West Lafayette, Indiana (since 2017).

#### **Mailing Address**:

Dalmatinska 55, 11120 Belgrade, Serbia

#### **Telephone Number(s) and Email Address**

+38165-8112-018 vm@etf.rs

#### Interests, Activities, Awards, and Services

Professor Veljko Milutinovic is a Life Fellow of the IEEE, a Life Member and a Former Honorary Treasurer of Academia Europaea (AE), formed with support of the British Royal Society, the German National Academy Leopoldina, and the Swedish Rijks Akademien.

He is a founding member of the Serbian National Academy of Engineering, and a Foreign Member of the Montenegrin National Academy of Sciences and Arts.

His single-author book on GaAs microprocessor design, elaborated in [4], was the Best Seller of All Times for IEEE Computer Society Press in 1986, and his co-authored paper about the 4096-processor Systolic Array for DARPA won a Honorary Mention at the IEEE/ACM HICSS-1986, elaborated in [3].

On the topic of DataFlow SuperComputing he lectured at almost all major universities in the USA (MIT, Harward, Purdue, Indiana, CMU, GATECH, Columbia, NYU, Illinois, Michigan, etc...), and at over 100 universities worldwide.

Related invited talks he delivered at dozens of conferences worldwide, often as a Keynote, or as the Opening Keynote (e.g., EMiT-2019 in England, UK).

For 20 of his books or special issues of journals, forewords or endorsements were written by 20 different Nobel Laureates with whom he cooperated on his past industry sponsored projects, while his most recent cooperation has been oriented to the research of Jerome Friedman (Quark on DataFlow) and Dan Schechtman (QuasiCrystals), and dataflow-based implementations of simulators for processes they discovered.

He has over 100 SCI journal papers (mostly in IEEE and ACM journals), over 40 books with the USA publishers (4 as a single author, 16 co-authored, and over 20 edited or co-edited), over 2000 WoS citations, over 2000 SCOPUS citations, and close to 6000 Google Scholar citations (h=40).

He consulted for industry, like AeroSpace Corporation, ElectroSpace Corporation, RCA AeroSpace and Defense, Boeing/Panthesis, HP Encore Labs in Florida, AT@T Bell Labs in New Jersey, NCR, StorageTek, Dow Jones, Wall Street Journal, and many others.

He was invited, through in-house presentations, to share his architecture/design solutions also at the World Bank (WB) and for experts of Int'l Monetary Fund (IMF), both in Washington DC, Brookhaven National Laboratory, Lawrence Livermore National Laboratory, IBM TJ Watson, Honeywell, Intel Oregon, Qualcomm VP, Fairchild, Tektronix, Yahoo NY, Google CA, Microsoft, Finsoft, NASA Cape Canaveral, JPL Pasadena, CERN Research Seminar, CERN Computing Center, ABB Zurich, Oracle Zurich, HLRS in Stuttgart, IPSI Fraunhofer in Darmstadt, and many other industrial labs or physics labs.

His lecture on future graph-based DataFlow computing for real-time simulation of processes in physics was presented for researchers of all major physics labs of the USA.

He served as the Senior Advisor at Maxeler Technologies in Sunnyvale, California, USA, and for TechnologyConnect, Boston, Massachusetts, USA.

He enjoys teaching his DataFlowAcceleration and SoftwareEngineeringManagement courses, since 2000.

#### **Optional Addendum:**

Veljko Milutinovic was born in Belgrade, Serbia, Yugoslavia. His B.Sc., M.Sc., and Ph.D. degrees are from the School of Electrical Engineering at the University of Belgrade, obtained in parallel with his full-time employment in the nation's leading defense industry research institutes (Michael Pupin and Nikola Tesla), where he worked as the principal designer who successfully completed (till serial production) several highly sophisticated engines for DSP of data buried in additive (Gaussian) and multiplicative (Fading) noises. At that time he also completed (till serial production) several engines for execution-time-efficient mapping of HLL programs into firmware, to obtain maximal acceleration. After Ph.D. he joined Purdue University as a visiting assistant professor for 6 years, but he left soon after he was promoted into a tenure-track position, which was six years before his tenure-decision deadline, in order: (a) to get himself involved full-time as a consultant and sub-contractor for several attractive cutting-edge defense-oriented and industrialresearch projects for leading high-tech companies of the USA (NCR, AT+T Bell Labs, Encore, StorageTek, Wall Street Journal, Dow Jones, Maxeler, MindGenomics, etc...), and (b) to get himself involved in the industry-oriented and the academy-oriented dissemination of the obtained research results (mostly for Maxeler, a Stanford spin-off, and MindGenomics, a Harvard spin-off). However, he continued to be on the Purdue University payroll for six more years (till mid 1995) and was spending his next six summers at Purdue (till mid 2001), in order to deliver on his research grants that were sponsored through Purdue, and were awarded to Purdue prior to him leaving his tenure-track position at Purdue. For the last six years (since 2017), each semester, he serves as a Guest Lecturer at Purdue University ECE and CEE departments.

His reseach in GaAs MicroProcessors and DataFlow SuperComputers was highly inspired and influenced by four different Nobel Laureates: (a) by Nobel Laureate Richard Feynman (under Feynman's influence, Milutinovic insisted on dataflow graphs with shortest possible edges, for minimal waste of energy), (b) by Nobel Laureate Ilya Prigogine (under Prigogine's influence, Milutinovic insisted on separation of temporal and spatial data, for minimal entropy of computing and the best optimization potentials at compile time), (c) by Nobel Laureate Daniel Kahneman (under Kahneman's influence, Milutinovic insisted on approximate computing in the parts of the algorithm where high precision was not needed, in order to save resources for reinvestments in the parts of the algorithm that needed the highest precision, which could be of crucial importance for simulations in physics and chemistry), and (d) by Nobel Laureate Tim Hunt (under Hunt's influence, Milutinovic insisted on introduction of compile-time abilities that trade between latency and precision, using transdisciplinary analogies with processes related to birth, reproduction, and death in the cell cycle).

1970s: Architecture/Design of DSP/HLL processors.

1980s: Architecture/Design of GaAs microprocessors/multiprocessors.

1990s: Cache Architecture/Design (split and injection caches).

2000s: Fundamental DataFlow Architecture/Design.

2010s: Advanced DataFlow Architecture/Design.

2020s: Computing Support for Emerging Applications.

# His main contributions were to GaAs microprocessor architecture/design and DataFlow supercomputer architecture/design.

@70s[1,2] he contributed to theory/practice of DSP/HLL processors, working for the defense research of exYugoslavia.

@80s[3,4] he created architecture/design of DARPA's first GaAs microprocessor; 200MHz about a decade before commercial microprocessors.

@90s[5,6] with chief architects of SUN/SPARC (Mark Tremblay) and INTEL/x86 (Gad Shaeffer), he introduced the concepts of injection and split caches.

@2000s[7,8] he influenced the creation of one specific DataFlow paradigm. His article on FPGA FloatingPoint Matrix Multiplication won the bi-annual 2014 Premium Award of IET Computers and Digital Techniques.

@2010s[9,10] he influenced DataFlow paradigm advancements. Currently active on DataFlow (re)implementations of Quark and QuasiCrystals processes.

@2020s[11,12] he has two seminal articles accepted for Springer Journal of Big Data, as well as two textbooks on the two courses that he teaches regularly (IGI Global for DataFlowAcceleration and Cambridge Press for SoftwareEngineeringMgmt).

#### Veljko Milutinovic's Principal Publications, Works, or Contributions to Civic Life:

#### 1970-1980: HLL/DFT Processors

[1] V. Milutinovic, "A Simulation Study of the Vertical-Migration Microprocessor Architecture," IEEE Transactions on Software Engineering, Vol. 13(12), pp. 1265-1277, 1987.

[2] V. Milutinovic, "A Comparison of Suboptimal Detection Algorithms Applied to the Additive Mix of Orthogonal Sinusoidal Signals," IEEE Transactions on Communications, Vol. 36(5), pp. 538-543, 1988.

#### 1980-1990: GaAs Microprocessors/Multiprocessors

- [3] J.A.B. Fortes, V. Milutinovic, R.J. Dick, W.A. Helbig, W.D. Moyers, "A High-Level Systolic Architecture for GaAs," Proceedings of the 9th IEEE/ACM Hawaii International Conference on System Sciences (HICSS), Honolulu, Hawaii, January 1986, pp. 253-258 (joint work with: Dick, Helbig, and Moyers of RCA AeroSpace and Defense).
- [4] W. Helbig, V. Milutinovic, "A DCFL E/D-MESFET GaAs Experimental RISC Machine," IEEE Transactions on Computers, Vol. 38(2), pp. 263-274, 1989 (joint work with: Helbig of RCA AeroSpace and Defense).

#### 1990-2000: Split and Injection Caches in SMP/DSM:

- [5] V. Milutinovic, B. Markovic, M. Tomasevic, M. Tremblay, "The Split Temporal/Spatial Cache: Initial Performance Analysis," Proceedings of the IEEE SCIzzL-5, Santa Clara, California, USA, March 1996 (joint work with: Tremblay of SUN Microsystems, California).
- [6] V. Milutinovic, A. Milenkovic, G. Sheaffer, "The Cache Injection CoFetch Architecture: Initial Performance Evaluation," Fifth International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems, IEEE MASCOTS, Haifa, Israel, January 12-15, 1997 (joint work with: Shaeffer of Intel, Israel).

#### 2000-2010: Basic DataFlow Paradigm

- [7] Z. Jovanovic, V. Milutinovic, "FPGA Accelerator for Floating-Point Matrix Multiplication," IET Computers & Digital Techniques, Vol. 6(4), pp. 249-256, 2012 (supported by Maxeler, California).
- [8] M. Flynn, O. Mencer, V. Milutinovic, G. Rakocevic, P. Stenström, R. Trobec, M. Valero, "Moving from Petaflops to Petadata," Communications of the ACM, Vol. 56 (5), pp. 39-42, 2013 (supported by Maxeler, California).

#### 2010-2020: Advanced DataFlow Paradigm

- [9] R. Trobec, R. Vasiljević, M. Tomašević, V. Milutinović, R. Beivide, M. Valero, "Interconnection Networks in Petascale Computer Systems: A Survey," ACM Computing Surveys, Vol.49 (3), September 2016, pp. 1-24, 2016 (supported by Maxeler, California).
- [10] M. Kotlar, V. Milutinovic, "The Ultimate DataFlow for Tensor Calculus," Invited Talk at the ExaComm Workshop of the International Supercomputing Conference, Frankfurt, Germany, June 28, 2018, published by Springer Nature, 2019 (supported by Maxeler, California).

# 2020-2030: Advanced DataFlow Applications

- [11] ... V. Milutinović, et al, "On Education for DataFlow Applications," Springer Journal of Big Data, 2023 (the leading journal at Clarivate WoS for Data Science the highest JIF in 2023).
- [10] ... V. Milutinovic, et al, "On DataFlow Research for Mathematics, GeoPhysics, and Physics," Springer Journal of Big Data, 2023 (the leading journal at Clarivate WoS for Data Science the highest JIF in 2023).

# Др Вељко Милутиновић, редовни професор у пензији

# Електротехнички факултет Универзитета у Београду

## БИБЛИОГРАФИЈА

# Објављене књиге, поглавља у монографијама и едитоване монографије

### Оригиналне књиге/монографије, поглавља у монографијама:

- 1. V. Milutinovic, F. Djordjevic, M. Kotlar, J. Salom, "Introduction to Management of Complex Software Projects," Cambridge Press, UK, 2024.
- 2. V. Milutinovic, M. Kotlar (Eds.), "Handbook on Super Computing," IGI Global, USA, FEB 2021.
- 3. V. Milutinovic, N. Mitic, A. Kartelj, M, Kotlar (Eds) "Dataming for Dataflow," IGI Glob, USA, NOV 2021.
- 4. V. Milutinovic, M. Kotlar (eds.), "Exploring the DataFlow Supercomputing Paradigm: Example Algorithms for Selected Applications," Springer, 2019.
- 5. V. Milutinovic, J. Salom, D. Veljovic, N. Korolija, D. Markovic, L. Petrovic,"DataFlow Supercomputing Essentials Research, Development and Education," Computer Communications and Networks, Springer 2017, ISBN: 978-3-319-66127-8, 150 p., 2017.
- 6. V. Milutinovic, M. Kotlar, M. Stojanovic, I. Dundic, N. Trifunovic, Z. Babovic, "DataFlow Supercomputing Essentials Algorithms, Applications and Implementations," Computer Communications and Networks, Springer 2017, ISBN: 978-3-319-66125-4, 150 p., 2017.
- 7. V. Milutinovic, J. Salom, "Mind Genomics Guide to Data-Driven Marketing Strategy," Springer, ISBN 978-3-319-39733-7, 125 p., 2016.
- 8. V. Milutinovic, J. Salom, N. Trifunovic, R. Giorgi, "Guide to DataFlow SuperComputing," Springer, ISBN: 978-3-319-16228-7, 129 p., 2015.
- 9. G. Jakus, V. Milutinovic, S. Omerovic, S. Tomazic, "Concepts, Ontologies, and Knowledge Representation," Springer Briefs in Computer Science, Springer, ISBN: 978-1-4614-7821-8, pp. i-vi, 1-67, 2013.
- 10. J. Sodnik, M. Stular, V. Milutinovic, S. Tomazic, "Mobile Communications: 4G," in *Encyclopedia of Wireless and Mobile Communications*, Volume I, CRC Press, 2008.
- 11. V. Milutinovic, "Infrastructure for E-Business on the Internet," Copyright by Kluwer, ISBN: 978-1-4615-1451-0, 437 p., 2001.
- 12. V. Milutinovic, "Microprocessor and Multimicroprocessor Systems," Copyright by Wiley, ISBN: 978-0-4713-5728-5, 291 p., 2000.
- 13. V. Milutinovic, V., "Surviving the Design of a 200 MHz RISC Microprocessor: Lessons Learned," IEEE Computer Society Press, Los Alamitos, California, USA, ISBN: 978-0-8186-7343-6, 200 p., 1997.
- 14. V. Milutinovic, V., "Projektovanje i arhitektura RISC procesora za VLSI", *Nauka*, Beograd, Srbija, Jugoslavija, 168 p., 1994.
- 15. V. Milutinovic, D. Bozanic, D. Polomcic, M. Aleksic, "Uvod u projektovanje računarskih VLSI sistema", *Nauka*, Beograd, Srbija, Jugoslavija, 1994., 162 p., 1994.
- 16. V. Milutinovic, S. Nedic, M. Ostojic, R. Paunovic, "Uvod u mikroprocesore", *Institute Michael Pupin*, Beograd, Srbija, Jugoslavija, 100 p., 1981.

17. V. Milutinovic, "Projektovanje telekomunikacionih uredjaja pomoću mikroprocesora", *Institute Michael Pupin*, Beograd, Srbija, Jugoslavija, 258 p., 1978.

#### Монографије у којима је био едитор:

- 18. A. Hurson, M. Milutinovic, (eds.), "Advances in Computers, Volume 106," Elsevier, 213p, ISBN: 978-0-12-812230-3, 2017.
- 19. A. Hurson, V. Milutinovic, (eds.), "Creativity in Computing and DataFlow SuperComputing," Elsevier, 229p, ISBN: 978-0-12-811955-6, 2017.
- 20. V. Milutinovic, B. Furht, Z. Obradovic, N. Korolija (eds.) "Advances in High Performance Computing and Related Issues," Mathematical Problems in Engineering, Hindawi, 2016.
- 21. A. Hurson, V., Milutinovic, V., "Dataflow Processing, Part 1," Elsevier, 259 p., ISBN: 978-0-12-802134-7, 2015.
- 22. G. Rakocevic, T. Dukic, N. Filipovic, V. Milutinovic (eds.), "Computational Medicine in DataMining and Modelling," Springer, 376 p., ISBN: 978-1-4614-8785-2, 2013.
- 23. M. Despotovic-Zrakic, V. Milutinovic, A. Belic (eds.), "High Performance and Cloud Computing in Scientific Research and Education," IGI Global, Hershey, PA, USA, ISBN: 978-1-46-665784-7, 476 p., 2014.
- 24. L. Gavrilovska, S. Krco, V. Milutinovic, I. Stojmenovic, R. Trobec (eds.), "Application and Multidisciplinary Aspects of Wireless Sensor Networks," Concepts, Integration, and Case Studies, Computer Communications and Networks, 1st Edition., 282 p., ISBN: 978-1-84996-509-5, 2011.
- 25. V. Milutinovic, F. Patricelli (eds.), "E-Business and E-Challenges," Copyright by IOS Press (Italy, USA, Japan, Holland), 2002. Foreword: Jerome Friedman (MIT), Nobel Laureate, 1000 pages, 2002.
- 26. W.Chin, F. Patricelli, V. Milutinovic (editors), "Electronic Business and Education: Recent Advances in the Internet Infrastructure," Kluwer, Norwell, MA 02061, 2001. Foreword: B. Richardson (Cornell), Nobel Laureate, 450 pages.
- 27. P. Antognetti, V. Milutinovic (editors, four volume series), "Neural Networks," Prentice Hall, Englewood Cliffs, New Jersey, 1992. Foreword: L. Cooper (Brown), Nobel Laureate, 1207 pages.
- 28. V. Milutinovic (editor), "Principles of Microprogramming," Prentice-Hall, Englewood Cliffs, New Jersey, 1992. Foreword: M. Wilkes (Cambridge), Turing laureate, 297 pages.
- 29. V. Milutinovic (editor), "Microprocessor Design for GaAs Technology," Prentice-Hall, Englewood Cliffs, New Jersey, 1990. Foreword: B. Naused (DARPA), 330 pages.
- 30. V.Milutinovic (editor), "High-Level Language Computer Architecture," Freeman Computer Science Press, Rockville, Maryland, 1989. Foreword: M.Flynn (Stanford), Turing laureate, 474 p.
- 31. V. Milutinovic (editor), "Computer Architecture: Concepts and Systems," North-Holland, New York, 1988. Foreword: K.Wilson (Cornell), Nobel Laureate, 566 pages.

#### Едитовани одабрани репринти:

- 32. J. Protic, M. Tomasevic, V. Milutinovic, V. (eds.), "Tutorial on Distributed Shared Memory," IEEE Press, 1998, 330 pages.
- 33. I. Tartalja, V. Milutinovic (eds.), "Tutorial on Cache Consistency in Multiprocessor Systems: Software Methods," IEEE Press, 1997, 390 pages.
- 34. M. Tomasevic, V. Milutinovic (editors), "Tutorial on Cache Consistency in Multiprocessor Systems: Hardware Methods," IEEE Press, 1993, 435 pages.
- 35. L. Hoevel, V. Milutinovic (eds.), "Proceedings of the ACM Hawaii International Conferences on System Sciences: Computer Architecture," ACM, 1991.
- 36. B. Shriver, V. Milutinovic (eds.) "Proceedings of the ACM Hawaii International Conferences on System Sciences: Computer Architecture," ACM, 1990.

- 37. B. Shriver, V. Milutinovic (eds.) "Proceedings of the ACM Hawaii International Conferences on System Sciences: Computer Architecture," ACM, 1989.
- 38. V. Milutinovic (editor) "Tutorial on Microprogramming and Firmware Engineering," IEEE Press, 1989, 410 pages.
- 39. V. Milutinovic, D. Fura (editors), "Tutorial on Computer Design of GaAs Technology," IEEE Press, 1988, 354 pages.
- 40. D. Gajski, V. Milutinovic, H.J. Siegel, B. Furht (editors), "Tutorial on Computer Architecture," IEEE Press, 1987, 593 pages.
  - An IEEE Computer Society Press Best-Seller of All Times.
- 41. V. Milutinovic, (editor), "Tutorial on Advanced Microprocessors and High-Level Language Computer Architecture," IEEE Press, 1986, 597 pages.

  An IEEE Press Best-Seller.

#### Едитовани зборници радова са међународних скупова:

- 42. V. Milutinovic, (editor), Proceedings of VIPSI-2006 Amalfi, Italy, March, 23-26, 2006.
- 43. V. Milutinovic, (editor), Proceedings of VIPSI-2005 Carcasone, France, April 24-27, 2005.
- 44. V. Milutinovic, (editor), Proceedings of VIPSI-2004 Studenica, Serbia, June, 10-13, 2004.
- 45. V. Milutinovic, (editor), Procedings of IPSI-2003 Sveti Stefan, Montenegro, October, 1-4, 2003.

## Радови објављени у научним часописима међународног значаја М20

### Радови у врхунским међународним часописима М21а

- 1. ... V. Milutinovic, et al, "Teaching Computing for Complext Problems in Civil Engineering and Geo Sciences Using Big Data and Machine Learning," Springer Journal of Big Data, 2023.
- 2. ... V. Milutinovic, et al, "Research in Computing-Intensive Simulations for Nature-Oriented Civil-Engineering and Relatied Scientific Fields, Using Machine Learning and Big Data," Springer Journal of Big Data, 2023.
- 3. A. Kos, V, Milutinovic, A. Umek, "Challenges in wireless communication for connected sensors and wearable devices used in sport biofeedback applications," Future Generation Computer Systems, vol. 92, pp. 582-592, 2019, IF: 6,125, (M21a).
- 4. R. Trobec, R. Vasiljević, M. Tomašević, V. Milutinović, R. Beivide, and M. Valero, "Interconnection Networks in Petascale Computer Systems: A Survey," ACM Computing Surveys, Vol.49 (3), (September 2016), 24 pages, 2016, IF: 6,748 (M21a).
- 5. M. Flynn, O. Mencer, V. Milutinovic, G. Rakocevic, P. Stenström, R. Trobec, M. Valero, "Moving from Petaflops to Petadata," Communications of the ACM, Vol. 56 (5), pp. 39-42, 2013, IF:2,863 (M21a).
- 6. I. Ekmecic, I. Tartalja, V. Milutinovic, "A survey of heterogeneous computing: concepts and systems," Proceedings of the IEEE, Vol. 84 (8), pp. 1127-1144, 1996, IF: 2,699/1997 (M21a).
- 7. B. Perunicic, S. Lakhani, V. Milutinovic, "Stochastic Modeling and Analysis of Propagation Delays in GaAs Adders," IEEE Transactions on Computers, Vol. 40(1), pp. 31-45, 1991, IF: 1,208/1992 (M21a).
- 8. V. Milutinovic, D. Fura, W. Helbig, "Pipeline Design Tradeoffs in a 32-bit Gallium Arsenide Microprocessor," IEEE Transactions on Computers, Vol. 40(11), pp. 1214-1224, 1991, IF: 1,208/1992 (M21a).

#### Радови у врхунским међународним часописима М21

- 9. V. Jelisavcic, I. Stojkovic, V. Milutinovic, Z. Obradovic, "Fast learning of scale-free networks based on Cholesky factorization," International Journal of Intelligent Systems, Vol. 33(6), pp. 1322-1339, 2018, IF: 3,363 (M21).
- 10. Z. Babovic, J. Protic, and V. Milutinovic, "Web Performance Evaluation for Internet of Things Applications," IEEE Access, DOI: 10.1109/ACCESS.2016.2615181, Vol. 4, pp. 6974 6992, 2016, IF: 3,244 (M21).
- S. Djordjevic, S. Stancin, A. Meglic, V. Milutinovic, S. Tomasic, "MC Sensor-A Novel Method for Measurement of Muscle Tension," Sensors, DOI: 10.3390/s111009411, Vol. 11 (10), pp. 9411-9425, 2011, IF: 1,739 (M21).
- 12. V. Milutinovic, "Our Profession Needs a Reminder," IEEE Computer, Vol. 39(5), pp. 102-104, 2006, IF: 1,289 (M21).
- 13. N. Milanovic, M. Malek, A. Davidson, V. Milutinovic, "Routing and Security in Mobile Ad Hoc Networks," IEEE Computer, Vol. 37(2), pp. 61-65, 2004, IF: 1,432 (M21).
- 14. V. Milutinovic, N. Skundric, "Will Distance Learning Create a Global University," IEEE Computer, Vol. 36(3), pp. 98-100, 2003, IF: 1,552 (M21).
- 15. E. Jovanov, V. Milutinovic, A. Hurson, "Acceleration of Nonnumeric Operations Using Hardware Support for the Ordered Table Hashing Algorithms," IEEE Transactions on Computers, Vol. 51(9), pp. 1026-1040, 2002, IF: 1,484 (M21).
- A. Ngom, I. Stojmenovic, V. Milutinovic, "STRIP a strip-based neural-network growth algorithm for learning multiple-valued functions," IEEE Transactions on Neural Networks, Vol. 12(2), pp. 212-227, 2001, IF: 1,479 (M21).
- 17. V. Milutinovic, P. Knezevic, B. Radunovic, S. Casselman, J. Schewel, "Obelix Searches Internet Using Customer Data," IEEE Computer, Vol. 33(7), pp. 104-107, 2000, IF: 1,043 (M21).
- 18. V. Milutinovic, D. Cvetkovic, J. Mirkovic, "Genetic Search Based on Multiple Mutations," IEEE Computer, Vol. 33(11), pp. 118-119, 2000, IF: 1,043 (M21).
- 19. V. Milutinovic, "Caching in distributed systems," IEEE Concurrency, Vol. 8(3), pp. 14-15, 2000, IF: 1,018 (M21).
- 20. M. Jovanovic, V. Milutinovic, "An overview of reflective memory systems," IEEE Concurrency, Vol. 7(2), pp. 56-64, 1999, IF: 0,784 (M21).
- 21. V. Milutinovic, M. Valero, "Enhancing and Exploiting the Locality," IEEE Transactions on Computers, Vol. 48(2), pp. 97-99, 1999, IF: 1,057 (M21).
- 22. I. Tartalja, V. Milutinovic, "Classifying Software-Based Cache Coherence Solutions," IEEE Software, Vol. 14(3), pp. 90-101, 1997, IF: 0,768 (M21).
- 23. D. Milutinovic, V. Milutinovic, "New solutions for new technologies," IEEE Computer, Vol. 29(4), 1996, IF: 0,608/1997 (M21).
- 24. A. Grujic, M. Tomasevic, V. Milutinovic, "A simulation study of hardware-oriented DSM approaches," IEEE Parallel & Distributed Technology Systems, Vol. 4(1), pp. 74-83, 1996, IF: 0,574/1997 (M21).
- 25. J. Protic, M. Tomasevic, V. Milutinovic, "Distributed shared memory: concepts and systems," IEEE Parallel & Distributed Technology Systems, Vol. 4(2), pp. 63-71, 1996, IF: 0,574/1997 (M21).
- 26. V. Milutinovic, Z. Petkovic, "Ten Lessons Learned from a RISC Design," IEEE Computer, Vol. 28(3), pp. 120, 1995, IF: 0,608/1997 (M21).
- 27. I. Ekmecic, I. Tartalja, V. Milutinovic, "EM3: A Taxonomy of Heterogeneous Computing Systems," IEEE Computer, Vol. 28(12), pp. 68-70, 1995, IF: 0,608/1997 (M21).

- 28. M. Tomasevic, V. Milutinovic, "Hardware approaches to cache coherence in shared-memory multiprocessors, Part 1," IEEE Micro, Vol. 14(5), pp. 52-59, 1994, IF: 0,992/1997 (M21).
- 29. M. Tomasevic, V. Milutinovic, "Hardware approaches to cache coherence in shared-memory multiprocessors 2.," IEEE Micro, Vol. 14(6), pp. 61-66, 1994, IF: 0,992/1997 (M21).
- 30. W. Helbig, V. Milutinovic, "A DCFL E/D-MESFET GaAs Experimental RISC Machine," IEEE Transactions on Computers, Vol. 38(2), pp. 263-274, 1989, IF: 1,388/1988 (M21).
- 31. V. Milutinovic, M. Bettinger, W. Helbig, "Multiplier/Shifter Design Tradeoffs in a 32-bit Microprocessor," IEEE Transactions on Computers, Vol. 38(6), pp. 874-881, 1989, IF: 1,388/1988 (M21).
- 32. V. Milutinovic, "A comparison of suboptimal detection algorithms applied to the additive mix of orthogonal sinusoidal signals," IEEE Transactions on Communications, Vol. 36(5), pp. 538-543, 1988, IF: 0,802 (M21).
- 33. V. Milutinovic, J. Crnkovic, C. Houstis, "A Simulation Study of Two Distributed Task Allocation Procedures," IEEE Transactions on Software Engineering, Vol. 14(1), pp. 54-61, 1988, IF: 1,387 (M21).
- 34. C. Gimarc, V. Milutinovic, "A Survey of RISC Processors and Computers of the Mid-1980s," IEEE Computer, Vol. 20(9), pp. 59-69, 1987, IF: 1,096 (M21).
- 35. V. Milutinovic, D. Fura, W. Helbig, J. Linn, "Architecture/Compiler Synergism in GaAs Computer Systems," IEEE Computer, Vol. 20(5), pp. 72-93, 1987, IF: 1,096 (M21).
- 36. D. Milutinovic, V. Milutinovic, B. Soucek, "The honeycomb architecture," IEEE Computer, Vol. 20 (4), pp. 81–83, 1987, IF: 1,096 (M21).
- 37. B. Furht, V. Milutinovic, "A Survey of Microprocessor Architectures for Memory Management," IEEE Computer, Vol. 20(3), pp. 48-67, 1987, IF: 1,096 (M21).
- 38. V. Milutinovic, N.é Lopez-Benitez, K. Hwang, "A GaAs-Based Microprocessor Architecture for Real-Time Applications," IEEE Transactions on Computers, Vol. 36(6), pp. 714-727, 1987, IF: 1,517 (M21).
- 39. V. Milutinovic, "A Simulation Study of the Vertical-Migration Microprocessor Architecture," IEEE Transactions on Software Engineering, Vol. 13(12), pp. 1265-1277 1987, IF: 1,402 (M21).
- 40. V. Milutinovic, "Guest Editor's Introduction GaAs Microprocessor Technology," IEEE Computer, Vol. 19(10), pp. 10-13, 1986, IF: 1,111 (M21).
- 41. V. Milutinovic et al. "Issues of Importance in Designing GaAs Microcomputer Systems," IEEE Computer, Vol. 19(10), pp. 45-57, 1986, IF: 1,111 (M21).
- 42. A. Silbey, V. Milutinovic, V. Mendoza-Grado, "A Survey of Advanced Microprocessors and HLL Computer Architectures," IEEE Computer, Vol. 19(8), pp. 72-85, 1986, IF: 1,111 (M21).
- 43. V. Milutinovic, D. Fura, W. Helbig, "An Introduction to GaAs Microprocessor Architecture for VLSI," IEEE Computer, Vol. 19(3), pp. 30-42, 1986, IF: 1,111 (M21).
- 44. Veljko Milutinović, "A microprocessor-oriented algorithm for adaptive equalization," IEEE Transactions on Communications, Vol. 33(6), pp. 522-526, 1985, IF: 0,983 (M21).
- 45. V. Milutinovic, "Comparison of three suboptimum detection procedures," Electronics Letters, Vol. 16(17), pp. 681-683, 1980, IF: 1,345/1981 (M21).
- 46. V. Milutinovic, "Suboptimum detection procedure based on the weighting of partial decisions," Electronics Letters, Vol. 16(6), pp. 237-238, 1980, IF: 1,345/1981 (M21).

#### Радови у истакнутим међународним часописима М22

- 47. M. Banković, V. Filipović, J. Graovac, J. Hadži-Purić, A. R Hurson, A. Kartelj, J. Kovačević, N. Korolija, M. Kotlar, N. B Krdžavac, F. Marić, S. Malkov, V. Milutinović, N. Mitić, S. Mišković, M. Nikolić, G. Pavlović-Lažetić, D. Simić, S. Stojanović Djurdjević, S. Vujičić Stanković, M. Vujošević Janičić, M. Živković, "Teaching graduate students how to review research articles and respond to reviewer comments," Advances in Computers, vol 116(1), pp. 1-63, 2020, IF: 1,833 (M22).
- 48. A. Hurson, V. Milutinovic, "Preface," Advances in Computers, vol. 106, pp. IX-X, 2017, IF: 1,514 (M22).
- 49. V. Milutinovic, S. Vujicic-Stankovic, A. Jovic, D. Draskovic, M. Misic, D. Furundzic, "A New Course on R&D Project Management in Computer Science and Engineering: Subjects Taught, Rationales Behind, and Lessons Learned," Advances in Computers, vol. 105, pp. 1-19, 2017, IF: 1,514 (M22).
- 50. A. Hurson, V. Milutinovic, "Creativity in Computing and Dataflow Supercomputing Preface," Advances in Computers, vol. 104, pp. VII-VIII, 2017, IF: 1,514 (M22).
- 51. Z. Stanisavljevic, B. Nikolic, I.Tartalja, V. Milutinovic, "A classification of eLearning tools based on the applied multimedia", Multimedia Tools and Applications, vol. 74, Issue 11, pp 3843-3880, June 2015, IF: 1,221 (M22).
- 52. B. Furlan, B. Nikolic, V. Milutinovic, "A Survey and Evaluation of State-of-the-Art Intelligent Question Routing Systems", International Journal Of Intelligent Systems, vol. 28, Issue 7, pp. 686–708, 2013, IF: 1.411 (M22).
- 53. S. Tomazic, V. Pavlovic, J. Milovanovic, J. Sodnik, A. Kos, S. Stancin, V. Milutinovic, "Fast file existence checking in archiving systems," ACM Transactions on Storage, vol. 7(1), 2011, IF:1,115/2012 (M22).
- 54. Z. Tafa, G. Rakocevic, D. Mihailovic, V. Milutinovic, "Effects of Interdisciplinary Education on Technology-Driven Application Design," IEEE Transactions on Education, vol. 54(3), pp. 462-470, 2011, IF: 1,021 (M22).
- 55. B. Nikolic, Z. Radivojevic, J. Djordjevic, V. Milutinovic, "A Survey and Evaluation of Simulators Suitable for Teaching Courses in Computer Architecture and Organization," IEEE Transaction on Education, Vol. 52(4), pp. 449-458, 2009, IF: 0,822 (M22).
- 56. A. Milenkovic, V. Milutinovic, "A quantitative analysis of wiring lengths in 2D and 3D VLSI," Microelectronics journal, Vol. 29 (6), pp. 313-321, 1998, IF: 0,345 (M22).
- 57. P. Chow, T. Geigel, V. Milutinovic, J. Pridmore, "Impact of mapping parameters on the performance of small cache memories," Microprocessors and Microsystems Embedded Hardware Design, Vol. 12(4), pp. 197-205, 1988, IF: 0,404 (M22).
- 58. A. Kabakibo, V. Milutinovic, "Simulation study of the impact of technology on cache memory performance," Microprocessors and Microsystems Embedded Hardware Design, Vol. 12(5), pp. 277-285, 1988, IF: 0,404 (M22).
- 59. H. Vlahos, V. Milutinovic, "GaAs microprocessors and digital systems: an overview of R&D efforts," IEEE Micro, Vol. 8(1), pp. 28-56, 1988, IF: 0,595 (M22).
- 60. V. Milutinovic, J. A. B. Fortes, L. Jamieson, "A multimicroprocessor architecture for real-time computation of a class of DFT algorithms," IEEE Transactions on Acoustics, Speech, and Signal Processing, Vol. 34(5), pp. 1301-1309, 1986, IF: 1,032 (M22).

#### Радови у међународним часописима М23

- 61. M. Kotlar, D. Bojić, M. Punt, V. Milutinović, "Survey of deployment locations and underlying hardware architectures for contemporary deep neural networks," International Journal of Distributed Sensor Networks 15 (8), 2019.
- 62. M. Cvetanovic, Z. Radivojevic, V. Milutinovic, "Restart Optimization for Transactional Memory with Lazy Conflict Detection," International Journal of Parallel Programming, Vol. 45(3), pp. 482-507, 2017, IF: 0.897, (M23).
- 63. V. Blagojević, D. Bojić, M. Bojović, M. Cvetanović, J. Đorđević, Đ. Đurđević, B. Furlan, S. Gajin, Z. Jovanović, D. Milićev, V. Milutinović, B. Nikolić, J. Protić, M. Punt, Z. Radivojević, Ž. Stanisavljević, S. Stojanović, I. Tartalja, M. Tomašević, P. Vuletić, "A Systematic Approach to Generation of New Ideas for PhD Research in Computing," Advances in Computers, vol. 104, 2016, IF: 0,303 (M23).
- 64. V. Milutinovic, B. Furht, Z. Obradovic, N. Korolija, "Advances in High Performance Computing and Related Issues Editorial," Mathematical Problems in Engineering, 2016, IF: 0,802 (M23).
- 65. I. Ratkovic, N. Bezanic, O. Ünsal, A. Cristal, V. Milutinovic, "Chapter One An Overview of Architecture-Level Power- and Energy-Efficient Design Techniques," Advances in Computers, vol. 98, pp. 1-57, 2015, IF: 0,302/2014 (M23).
- 66. A. Hurson, V. Milutinovic, "Preface," Advances in Computers, vol. 96, pp. vii-viii, 2015, IF: 0,256/2015 (M23).
- 67. Z. Sustran, G. Rakocevic, V. Milutinovic, "Dual Data Cache Systems: Architecture and Analysis", Advances in Computers, vol 96, pp. 187-233, 2015, IF: 0,256/2015 (M23).
- 68. A. Kos, S. Tomazic, J. Salom, N. Trifunovic, M. Valero, V. Milutinovic, "New Benchmarking Methodology and Programming Model for Big Data Processing," International Journal of Distributed Sensor Networks, vol. 2015, 2015, IF: 0,665/2014 (M23).
- 69. G. Rakocevic, Z. Tafa, V. Milutinovic, "A Novel Approach to Data Mining in Wireless Sensor Networks," Ad Hoc & Sensor Wireless Networks, Vol. 22 (1-2), pp. 21-40, 2014, IF: 0,435 (M23).
- 70. M. Radulovic, M. Tomasevic, V. Milutinovic, "Register-Level Communication in Speculative Chip Multiprocessors", Advances in Computers, vol, 92, pp. 1-66, 2014, IF: 0,302 (M23).
- 71. A. Vitorovic, M. Tomasevic, V. Milutinovic, "Manual Parallelization Versus State-of-the-Art Parallelization Techniques: The SPEC CPU2006 as a Case Study," Advances in Computers, vol. 92, pp. 203-251, 2014, IF: 0,302 (M23).
- 72. Z. Babovic, V. Milutinovic, "Novel System Architectures for Semantic-Based Integration of Sensor Networks," Advances in Computers, vol. 90, pp. 91-183, 2013, IF:0,489 (M23).
- 73. S. V. Stankovic, N. Kojic, G. Rakocevic, D. Vitas, V. Milutinovic, "A Classification of Data Mining Algorithms for Wireless Sensor Networks, and Classification Extension to Concept Modeling in System of Wireless Sensor Networks Based on Natural Language Processing," Advances in Computers, vol. 90, pp. 223-283, 2013, IF:0,489 (M23).
- 74. Z. Jovanovic, V. Milutinovic, "FPGA accelerator for floating-point matrix multiplication, " IET Computers & Digital Techniques, vol. 6(4), pp. 249-256, 2012, IF: 0,284 (M23).
- 75. S. Omerovic, Z. Babovic, Z. Tafa, V. Milutinovic, S. Tomazic, "Concept modeling: From origins to multimedia," Multimedia Tools and Applications, vol. 51(3), pp. 1175-1200, 2011, IF:0,617 (M23).
- 76. Z. Tafa, V. Milutinovic, "Detectability of Static and Moving Targets in Randomly Deployed Military Surveillance Networks," Ad Hoc & Sensor Wireless Networks, Vol. 13(3-4), pp. 291-312, 2011, IF: 0,400 (M23).

- 77. M. Jovic, G. Rakocevic, M. Jovic, V. Milutinovic,"A Multi-, Inter-, and Trans-Disciplinary Approach to Teaching Wireless Sensor Networks," Technics Technologies Education Management, vol. 6(4), pp. 977-984, 2011, IF:x.
- 78. S. Omerovic, S. Tomazic, M. Milutinovic, V. Milutinovic, "Methodology for Written and Oral Presentation of Research Results," Journal of Professional Issues In Engineering Education and Practice, Vol 136 (2), pp. 112-117, 2010, IF: 0,372 (M23).
- 79. J. Sahuquillo, S. Petit, A. Pont, V. Milutinovic, "Exploring the performance of split data cache schemes on superscalar processors and symmetric multiprocessors," Journal of Systems Architecture, Vol. 51(8), pp. 451-469, 2005, IF:0,402 (M23).
- 80. V. Milutinovic et al. "Testing the E-Business Infrastructure: Expanding into the Wireless/Mobile Environments," Telecommunication Systems, Vol. 22(1-4), pp. 141-150, 2003, IF: 0,413 (M23)
- 81. M. Kovacevic, M. Diligenti, M. Gori, V. Milutinovic, "Recognition of Common Areas in a Web Page Using a Visualization Approach," in Artificial Intelligence: Methodology, Systems, and Applications, Lecture Notes in Computer Science, Vol. 2443, pp. 203-212, 2002, IF: 0,515 (M23).
- 82. A. Milenkovic, V. Milutinovic, "A performance evaluation of cache injection in bus-based shared memory multiprocessors," Microprocessors and Microsystems, Vol. 26(2), pp. 51-61, 2002, IF: 0,341 (M23).
- 83. D. Horvat, D. Cvetkovic, V. Milutinovic, P. Kocovic, V. Kovacevic, "Mobile Agents and Java Mobile Agents Toolkits," Telecommunication Systems, Vol. 18(1-3), pp. 271-287, 2001, IF: 0,109 (M23).
- 84. D. Cvetkovic, M. Pesic, D. Petkovic, V. Milutinovic, D. Horvat, P. Kocovic, V. Kovacevic, "Architecture of the Mobile Environment for Intelligent Genetic Search and Proxy Caching," Telecommunication Systems, Vol. 18(1-3), pp. 255-270, 2001, IF: 0,109 (M23).
- 85. J. Sahuquillo, A. Pont, V. Milutinovic, "The Filter Data Cache: A Tour Management Comparison with Related Split Data Cache Schemes Sensitive to Data Localities," Lecture Notes in Computer Science, Vol. 1940, pp. 319-327, 2001, IF: 0,415 (M23).
- 86. G. Davidovic, J. Ciric, V. Milutinovic, G. Hadzic, L. Radicevic, "VLSI implementation of detection of R2 signalization," Microprocessors and Microsystems, Embedded Hardware Design, Vol. 21(2), pp. 73-78, 1997, IF: 0,163 (M23).
- 87. M. Tomasevic, V. Milutinovic, "The word-invalidate cache coherence protocol," Microprocessors and Microsystems Embedded Hardware Design, Vol. 20(1), pp. 3-16, 1996, IF: 0,163/1997 (M23).
- 88. S. Lakhani, Y. Wang, A. Milenković, V. Milutinović, "2D matrix multiplication on a 3D systolic array," Microelectronics journal, Vol. 27(1), pp. 11-22, 1996, IF: 0,227/1997 (M23).
- 89. S. Savic, M. Tomasevic, V. Milutinovic, A. Gupta, M. Natale, I. Gertner, "Improved RMS for the PC environment," Microprocessors and Microsystems Embedded Hardware Design, Vol. 19(10), pp. 609-619, 1995, IF: 0,163/1997 (M23).
- 90. V. Milutinovic, "Microprocessor architecture and design for gallium arsenide technology (part 2)," Microelectronics Journal, Vol. 20(3), pp. 7-9, 1989. (M23).
- 91. 61. V. Milutinovic, "Microprocessor architecture and design for GaAs technology," Microelectronics Journal, Vol. 19(4), pp. 51-55, 1988, (M23).
- 92. K. McNeley, V. Milutinovic, "Emulating a Complex Instruction Set Computer with a Reduced Instruction Set Computer," IEEE Micro, Vol. 7(1), pp. 60-72, 1987, IF: 0,392 (M23).
- 93. V. Milutinovic, "Performance comparison of two suboptimum detection procedures in real environment," IEE Proceedings F. Communications, Radar and Signal Processing, Vol. 131(4), pp. 341-344, 1984, (M23).

# <u>Радови у међународним часописима који су доспели на SCI или eSCI листу након</u> што је проф. Милутиновић у њима објавио радове

- 94. N. Trifunovic, V. Milutinovic, N. Korolija, G. Gaydadjiev, "An AppGallery for dataflow computing," Journal of Big Data, vol. 3(4), 2016.
- 95. N. Trifunovic, V. Milutinovic, J. Salom, A. Kos, "Paradigm Shift in Big Data SuperComputing: DataFlow vs. ControlFlow," Journal of Big Data, vol. 2(4), 2015.
- 96. G. Rakocevic, M. Jovic, M. Jovic, V. Milutinovic, "Collaborative Multi, Inter, and Trans Disciplinary Courses: A Case Study based on Wireless Sensor Networks," Arab Gulf Journal of Scientific Research, vol. 32(1), 2014.
- 97. I. Stanojevic, V. Senk, V. Milutinovic, "Application of maxeler dataflow supercomputing to spherical code design," The IPSI BgD Transactions on Internet Research, vol. 9(2), pp. 1-4, 2013.
- 98. V. Rankovic, A. Kos, V. Milutinovic, "Bitonic Merge Sort Implementation on the Maxeler Dataflow Supercomputing System," The IPSI BgD Transactions on Internet Research, vol. 9(2), pp. 5-10, 2013.
- 99. N. Bezanic, J. Popovic-Bozovic, V. Milutinovic, I. Popovic, "Implementation of the RSA Algorithm on a Dataflow Architecture," The IPSI BgD Transactions on Internet Research, vol. 9(2), pp. 11-16, 2013.
- 100. S. Stojanović, D. Bojić, V. Milutinović, "Solving Gross Pitaevskii equation using dataflow paradigm,"
  - The IPSI BgD Transactions on Internet Research, vol. 9(2), pp. 17-22, 2013.
- 101. Z. Sustran, Z. Ognjanovic, M. Todorovic, V. Milutinovic, "Feasibility study on the SAT solver on DataFlow architecture," The IPSI BgD Transactions on Internet Research, vol. 9(2), pp. 23-27, 2013.
- 102. N. Korolija, T. Djukic, V. Milutinovic, N. Filipovic, "Accelerating Lattice-Boltzman Method Using Maxeler DataFlow Approach," The IPSI BgD Transactions on Internet Research, vol. 9(2), pp. 34-41, 2013.
- 103. S. Tomazic, V. Pavlovic, J. Milovanovic, J. Sodnik, A. Kos, S. Stancin, V. Milutinovic, "Fast file existence checking in archiving systems," ACM Transactions on Storage, vol. 7(1): pp. 2:1-2:21, 2011.

# Зборници међународних научних скупова М30

#### Саопштења са међународних скупова штампана у целини М33

- 1. M. Kotlar and V. Milutinovic, "Comparing Controlflow and Dataflow for Tensor Calculus: Speed, Power, Complexity, and MTBF," High Performance Computing ISC High Performance 2018 International Workshops, ExaComm, Frankfurt, Germany, June 24-28, 2018.
- 2. M. Kotlar, D. Bojic, M. Punt, and V. Milutinovic "A Survey of Deep Neural Networks: Deployment Location and Underlying Hardware," 15th Symposium on Neural Networks and Applications (NEUREL), Belgrade, 2018.
- 3. I. Stojkovic, V. Jelisavcic, V. Milutinovic, Z. Obradovic, "Fast Sparse Gaussian Markov Random Fields Learning Based on Cholesky Factorization," In Proceedings of the 26th International Joint Conference on Artificial Intelligence, IJCAI 2017, Melbourne, Australia, August 19-25, pp. 2758-2764, 2017.
- 4. I. Stojkovic, V. Jelisavcic, V. Milutinovic, Z. Obradovic, "Distance Based Modeling of Interactions in Structured Regression," In Proceedings of the 25th International Joint Conference on Artificial Intelligence, IJCAI 2016, pp. 2032-2038, 2016.
- 5. M. Kotlar, Z. Babovic, V. Milutinovic, "Implementation of perception algorithm using DataFlow paradigm," 13th Symposium on Neural Networks and Applications (NEUREL), Belgrade, 2016.

- 6. N. Markovic, D. Nemirovsky, V. Milutinovic, O. S. Unsal, M. Valero, A. Cristal, "Hardware Round-Robin Scheduler for Single-ISA Asymmetric Multi-core," Euro-Par 2015: Parallel Processing, 21st International Conference on Parallel and Distributed Computing, pp. 122-134, 2015.
- 7. A. Mihajlovic, V. Jelisavcic, B. Marinkovic, M. Todorovic, Z. Ognjanovic, S. Tomovic, V. Stojanovic, V. Milutinovic, "Serbia Forum Digital Cultural Heritage Portal," 6th International Conference on Image and Signal Processing, ICISP 2014, pp. 265-271, 2014.
- 8. V. Gajinov, I. Eric, S. Stojanovic, V. Milutinovic, O. S. Unsal, E. Ayguadé, A. Cristal," A Case Study of Hybrid Dataflow and Shared-Memory Programming Models: Dependency-Based Parallel Game Engine," 26th IEEE International Symposium on Computer Architecture and High Performance Computing, SBAC-PAD 2014, pp. 1-8, 2014
- 9. G. Rakocevic, Z. Sustran, V. Milutinovic, "A modified Split Temporal/Spatial Cache," In Proceedings of the IEEE International Conference on Control Applications, CCA 2012, pp. 190-195, 2012.
- 10. B. Furlan, B. Nikolic, V. Milutinovic,"A survey of intelligent question routing systems," 6th IEEE International Conference on Intelligent Systems, IS 2012, pp. 14-20, 2012.
- 11. D. Draskovic, V. Milutinovic, "Hybrid approaches to mutation in genetic search algorithms," 6th IEEE International Conference on Intelligent Systems, IS 2012, pp. 336-340, 2012.
- 12. A. Kartelj, V. Filipovic, V. Milutinovic,"Novel approaches to automated personality classification: Ideas and their potentials," In Proceedings of the 35th International Convention, MIPRO 2012, pp. 1017-1022, 2012.
- 13. V. Jelisavcic, B. Furlan, J. Protic, V. Milutinovic, "Topic models and advanced algorithms for profiling of knowledge in scientific papers," In Proceedings of the 35th International Convention, MIPRO 2012, pp. 1030-1035, 2012.
- 14. M.P. Đurišić, Z. Tafa, G. Dimić, V Milutinović, "A survey of military applications of wireless sensor networks," 2012 Mediterranean Conference on Embedded Computing (MECO), pp. 196-199, 2012.
- 15. D. Draskovic, B. Nikolic, V. Milutinovic, "A Classification of Mutational Approaches for Genetic Search," IEEE International Conference on Industrial Technology (ICIT) 2012, pp. 260-264, 2012.
- 16. Stojanovic, D. Bojic, M. Bojovic, M. Valero, V. Milutinovic, "An overview of Selected Hybrid and Reconfigurable Architectures," IEEE International Conference on Industrial Technology (ICIT) 2012, pp. 444-449, 2012.
- 17. Z. Sustran, S. Stojanovic, G. Rakocevic, V. Milutinovic, M. Valero, "A Survey of Dual Data Cache Systems," IEEE International Conference on Industrial Technology (ICIT) 2012, pp. 450-456, 2012.
- 18. S. Sucurovic, V. Milutinovic, "The Need for the Use of XACML Access Control Policy in a Distributed EHR and Some Performance Considerations," 5th Conference of the International-Council-on-Medical-and-Care-Compunetics, (2008), vol. 137, pp. 346-352, 2008.
- 19. S. Rudan, A. Kovacevic, C. A. Milligan, V. Milutinovic, "Data Assurance in a Conventional File Systems," 38th Hawaii International Conference on System Sciences, HICSS-38 2005, 2005.
- 20. M. Kovacevic, M. Diligenti, M. Gori, V. Milutinovic, "Visual adjacency multigraphs-a novel approach for a web page classification," In Proceedings of the Workshop on Statistical Approaches to Web Mining, SAWM 04-ECML2004, pp. 38–49, 2004.
- 21. B. Djordjevic, V. Milutinovic, S. Miskovic, N. Jovanovic, "Disk Caching for Centralized Operating Systems dedicated to PC architecture", 2003 International Conference Advances in Infrastructure for Electronic Business, Set-Associative Disk Caching for a FAT File System Science, and Education on the Internet, SSGRR 2003, 2003.
- 22. M. Kovacevic, M. Diligenti, M. Gori, V. Milutinovic, "Recognition of common areas in a web page using visual information: A possible application in a page classification," In Proceedings of the 2002 IEEE International Conference on Data Mining, ICDM 2002, pp. 250-257, 2002.
- 23. B. Djordjevic, V. Milutinovic, S. Miskovic, N. Jovanovic, "Hardware RAID-5 versus Non-RAID solution under UNIX Operating System", 2002 International Conference Advances in Infrastructure for Electronic Business, Set-Associative Disk Caching for a FAT File System Science, and Education on the Internet, SSGRR 2002, 2002
- 24. B. Djordjevic, V. Milutinovic, D. Zivkovic, N. Jovanovic, "PCI BUS versus ISA BUS on SCSI Disk Controllers under UNIX Operating System", 2002 International Conference Advances in

- Infrastructure for Electronic Business, Set-Associative Disk Caching for a FAT File System Science, and Education on the Internet, SSGRR 2002, 2002.
- 25. F. Darnell, V. Milutinovic, I. Branovic, M. Desivojevic, S. Ilic, V. Jovanovic, V. Jovicic, B. Milic, D. Milutinovic, S. Omorac, M. Savic, M. Simic, N. Uskokovic, Dj. Velickovic, "Testing the E-business Infrastructure: Expanding into the Wireless/Mobile Environments," 35th Annual Hawaii International Conference on System Sciences, HICSS-35 2002, pp. 299, 2002.
- 26. V. Milutinovic, "Research and Development in E-Business on the Internet," 34th Annual Hawaii International Conference on System Sciences, HICSS-34, 2001.
- 27. B. Djordjevic, V. Milutinovic, D. Zivkovic, N. Jovanovic "Set-Associative Disk Caching for a FAT File System", 2001 International Conference Advances in Infrastructure for Electronic Business, Set-Associative Disk Caching for a FAT File System Science, and Education on the Internet, SSGRR 2001, 2001.
- 28. A. Milenkovic, V. Milutinovic, "Cache Injection: A Novel Technique for Tolerating Memory Latency in Bus-Based SMPs," 6th International Euro-Par Conference on Parallel Prococessing, Vol. 1900, pp. 558-566, 2000.
- 29. D. Cvetkovic, D. Horvat, M. Pesic, D. Petkovic, V. Milutinovic, "Architecture of the Mobile Environment for Intelligent Genetic Search and Proxy Caching," 33rd Annual Hawaii International Conference on System Sciences, HICSS-33, 2000.
- 30. D. Horvat, D. Cvetkovic, V. Milutinovic, "Mobile Agents and Java Mobile Agents Toolkits," 33rd Annual Hawaii International Conference on System Sciences, HICSS-33, 2000.
- 31. P. Knezevic, B. Radunovic, N. V. Nikolic, T. Jovanovic, D. Milanov, M. Nikolic, V. Milutinovic, S. Casselman, J. Schewel," The Architecture of the Obelix An Improved Internet Search Engine," 33rd Annual Hawaii International Conference on System Sciences, HICSS-33, 2000.
- 32. N. Nikolic, M. Trajkovic, M. Milicevic, D. Milicev, D. Marjanovic, I. Sokic, V. Milutinovic, M. D. Santo, S. Salerno, P. Ritrovato, M. Marsella, "Socratenon A Web-based Training System with an Intellect," 33rd Annual Hawaii International Conference on System Sciences, HICSS-33, 2000.
- 33. J. Sahuquillo, A. Pont, V. Milutinovic, "The Filter Data Cache: A Tour Management Comparison with Related Split Data Cache Schemes Sensitive to Data Localities," Third International Symposium on High Performance Computing, ISHPC 2000, Vol. 1940, pp. 319-327, 2000.
- 34. D. Marinov, D. Magdic, A. Milenkovic, J. Protic, I. Tartalja, V. Milutinovic, "Scowl: A Tool for Characterization of Parallel Workload and its Use on Splash-2 Application Suite," In Proceedings of the 8th International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2000, pp. 207-213, 2000.
- 35. J. Protic, V. Milutinovic, "A Comparison of Three Protocols for Entry Consistency Maintenance Based on MVA Algorithm," In Proceedings of the 8th International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, MASCOTS 2000, pp. 517-523, 2000.
- 36. I. Ikodinovic, D. Magdic, A. Milenkovic and V. Milutinovic., "Limes: a multiprocessor simulation environment for PC platforms," In Proceedings of the 3rd International Conference on Parallel Processing and Applied Mathematics, pp. 398–412, 1999.
- 37. R. Hartenstein, V. Milutinovic, "Configware: From Glue Logic Synthesis to Reconfigurable Computing Systems- Introduction," 32nd Annual Hawaii International Conference on System Sciences, HICSS-32, 1999.
- 38. B. Radunovic, V. Milutinovic, "A Survey of Reconfigurable Computing Architectures," 8th International Workshop on Field-Programmable Logic and Applications, From FPGAs to Computing Paradigm, FPL 1998, pp. 376-385, 1998.
- 39. A. Milenkovic, V. Milutinovic, "Lazy Prefetching," 31st Annual Hawaii International Conference on System Sciences, HICSS 1998, pp. 780-781, 1998.
- 40. D. Marinov, D. Magdic, A. Milenkovic, J. Protic, I. Tartalja, V. Milutinovic, "An Approach to Characterization of Parallel Applications for DSM Systems," 31st Annual Hawaii International Conference on System Sciences, HICSS 1998, pp. 782-795, 1998.
- 41. A. Milenkovic, V. Milutinovic, "Cache Injection on Bus Based Multiprocessors," The 17th IEEE Symposium on Reliable Distributed Systems, SRDS 1998, pp. 341-346, 1998.

- 42. M. Petrovic, I. Tartalja, V. Milutinovic, "Two Branch Predictor Schemes for Reduction of Misprediction Rate in Conditions of Frequent Context Switches," The 17th IEEE Symposium on Reliable Distributed Systems, SRDS 1998, pp. 354-359, 1998.
- 43. M. Vuletić, G. Davidović, V. Milutinović, "Suboptimal detection of telemetry signals: functional simulation and VLSI implementation," 6th International IEEE Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, pp. 289-294, 1998.
- 44. M. Prvulovic, D. Marinov and V. Milutinovic, "Performance Evaluation of Split Temporal/Spatial Caches: Paving the Way to New Solutions," Workshop Digest of ISCA/PAID-98, Barcelona, Spain, 1998.
- 45. J. Protic, V. Milutinovic, "Entry Consistency versus Lazy Release Consistency in DSM Systems: Analytical Comparison and a New Hybrid Solution," 6th IEEE Workshop on Future Trends of Distributed Computer Systems, FTDCS '97, pp. 78-83, 1997.
- 46. V. Milutinovic, D. Milutinovic, V. Ciric, D. Starcevic, B. Radenkovic, M. Ivkovic, "Some Solutions for Critical Problems in the Theory and Practice of Distributed Shared Memory: Ideas and Implications," 30th Annual Hawaii International Conference on System Sciences, HICSS-30, pp. 276-281, 1997.
- 47. J. Protic, V. Milutinovic, "Reflective memory system based on a grid of buses that selectively uses relaxed memory consistency models," In Proceedings of 21st IEEE International Conference on Microelectronics, pp. 837-840, 1997.
- 48. D. Raskovic, V. Milutinovic, "New architectures and I/O scheduling methods for scalable storage products," 1997 International Conference on Parallel and Distributed Systems, ICPADS '97, pp. 14-19, 1997.
- 49. V. Milutinovic, A. Milenkovic, G. Sheaffer, "The Cache InjectionKofetch Architecture: Initial Performance Evaluation," Fifth International Symposium on Modeling, Analysis, and Simulation of Computer and Telecommunication Systems, MASCOTS 1997, pp. 63-64, 1997.
- 50. V. Milutinovic, B. Markovic, M. Tomasevic, and M. Tremblay, "The Split Temporal/Spatial Cache: Initial Performance Analysis," in Proceedings of the SCIzzL-5, Santa Clara, California, USA, March 1996, pp. 63-69.
- 51. I. Ekmecic, I. Tartalja, V. Milutinovic, "A survey of heterogeneous computing: concepts and systems," Proceedings of the IEEE 84 (8), 1127-1144, 1996.
- 52. E. Jovanov, V. Milutinovic, "A new concept for hardware acceleration of database code," In Proceedings of 8th Mediterranean Electrotechnical Conference, MELECON'96., Vol. 1, pp. 162-165, 1996.
- 53. V. Milutinovic, M. Tomasevic, B. Markovic, and M. Tremblay, "A new cache architecture concept: the split temporal/spatial cache," In Proceedings of 8th Mediterranean Electrotechnical Conference, MELECON'96., Vol. 1, pp. 1108–1111, 1996.
- 54. D. Raskovic, E. Jovanov, A. Janicijevic, V. Milutinovic, "An implementation of hash based ATM router chip," 28th Annual Hawaii International Conference on System Sciences, HICSS-28, pp. 32-40, 1995.
- 55. J. Protic, M. Tomasevic, V. Milutinovic, "A survey of distributed shared memory systems," 28th Annual Hawaii International Conference on System Sciences, HICSS-28, pp. 74-84, 1995.
- 56. M. Jovanovic, M. Tomasevic, V. Milutinovic, "A simulation-based comparison of two reflective memory approaches," 28th Annual Hawaii International Conference on System Sciences, HICSS-28, pp. 140-152, 1995.
- 57. I. Tartalja, V. Milutinovic, "A survey of software solutions for maintenance of cache consistency in shared memory multiprocessors," 28th Annual Hawaii International Conference on System Sciences, HICSS-28, pp. 272-287, 1995.
- 58. A. Grujic, M. Tomaševic, V. Milutinovic, "A simulation analysis of hardware-oriented DSM approaches," In Proc. of IEEE Region 10's Ninth Annual International Conference TENCON-94, pp. 386–390, 1994.
- 59. A. Skorc, V. Milutinovic, "Architectural Requirements for Multimedia Image Compression, and a Solution Based on VLSI Hardware Accelerator," 27th Annual Hawaii International Conference on System Sciences, HICSS-27, pp. 312-320, 1994.

- 60. M. Tomaševic, V. Milutinovic, "A survey of hardware solutions for maintenance of cache coherence in shared memory multiprocessors," 26th Annual Hawaii International Conference on System Sciences, HICSS-26, vol. 1, pp. 863-872, 1993.
- 61. M. Aleksic, V. Milutinovic, "Architecture support for window environments," 25th Annual Hawaii International Conference on System Sciences, HICSS-25, 1992.
- 62. I. Tartalja, V. Milutinovic, "An approach to dynamic software cache consistency maintenance based on conditional invalidation," 25th Annual Hawaii International Conference on System Sciences, HICSS-25, 1992.
- 63. M. Tomaševic, V. Milutinovic, "A simulation study of snoopy cache coherence protocols," 25th Annual Hawaii International Conference on System Sciences, HICSS-25, 1992.
- 64. B. Perunicic, V. Milutinovic, P. Markovic, "Mapping of neural networks onto the 3D-VLSI," 24th Annual Hawaii International Conference on System Sciences, HICSS-24, 1991.
- 65. S. Lakhani, D. Meyer, V. Milutinovic, B. Perunicic, "Stochastic modeling and analysis of propagation delays in processing units," 24th Annual Hawaii International Conference on System Sciences, HICSS-24, 1991.
- 66. V. Milutinovic, V. Upatising, "Mapping of neural networks on honeycomb architectures: area analysis," 23rd Annual Hawaii International Conference on System Sciences, HICSS-23, 1990.
- 67. G. Jung, DG. Meyer, V. Milutinovic, "Comparison and evaluation of two catalytic migration approaches for the design of windowing-oriented register file structures," 23rd Annual Hawaii International Conference on System Sciences, HICSS-23, 1990.
- 68. V. Milutinovic, "Mapping of neural networks on the honeycomb architecture," Proceedings of the IEEE, Vol. 77(12), pp. 1875-1878, 1989.
- 69. C. Gimarc, V. Milutinovic, O. Ersoy, "Time complexity modeling and comparison of parallel architectures for Fourier transform oriented algorithms," 22nd Annual Hawaii International Conference on System Sciences, HICSS-22, Vol. I: Architecture Track, pp. 160-170, 1989.
- 70. V. Milutinovic, J. Crnkovic, "State transition times for limited contention multiple access schemes," 1985 ACM Conference on Computer Science, pp. 330-338, 1985.
- 71. K. Keirn, V. Milutinovic, "An Analysis of the UCB-RISC in the Gallium Arsenide environment," IEEE International Conference on Computer Design: VLSI in Computers, ICCD'85, pp. 396, 1985.
- 72. V. Milutinovic, D. Fura, and W. Helbig, "Impacts of GaAs on Microprocessor Architecture," IEEE International Conference on Computer Design: VLSI in Computers, ICCD'85, Vol. 30, 1985.
- 73. V. Milutinovic, J. Crnkovic, L.-Y. Chang, H. J. Siegel, "The Loco Approach to Distributed Task Allocation in AIDA by VERDI," 5th International Conference on Distributed Computing Systems, ICDCS 1985, pp. 359-368, 1985.
- 74. V. Milutinovic, "One approach to microprocessor implementation of 4800 b/s data modem for telephone channels," IEEE International Conference on Acoustics, Speech, and Signal Processing, ICASSP '84, pp. 402-405, 1984.
- 75. V. Milutinovic, D. Roberts, K. Hwang, "Mapping HLL constructs into microcode for improved execution speed," Proceedings of the 17th ACM/IEEE annual workshop on Microprogramming, MICRO 1984, Vol. 15 (4), pp. 2-11, 1984.
- 76. V. Milutinovic, "Weighted Partial Detection of Data Signals," IEEE Information Theory Conference, Santa Monica, CA, USA, 1982.
- 77. V. Milutinovic, "HF Radio Modem: Software Issues," International Michael Pupin Conference on HF Data Modem Desing, 1981.
- 78. V. Milutinovic, "HF Radio Modem: Hardware Aspects," Euromicro Conference, 1980.
- 79. 100. V. Milutinovic, "Chairman's Introduction: Advances in Computing," VIPSI Conferences, 2003 2010 (22 conferences in the series, from Tokyo and Sendai till California and Hawaii).

## Радови у часописима националног значаја М50

#### Радови у научним часописима М53

- 1. V. Milutinovic, "DataFlow SuperComputing," Journal of the Electrotehnical Faculty of the University of Montenegro, 2016.
- 2. Milutinovic, V., "A Structured Approach to Research for PhD Students in Computer Science and Engineering: How to Create Ideas, Conduct Research, and Write Papers," The IPSI BgD Transactions on Internet Research, vol. 11(2), pp. 46-54, 2015.
- 3. A. Mihajlović, V. Jelisavčić, B. Marinković, Z. Ognjanović, V. Milutinović, "An Overview of and Innovative Perspectives for the Serbia-Forum Cultural Heritage Digitization Project," Review of the National Center for Digitization, Faculty of Mathematics, Vol. 25, pp. 17-21, 2014.
- 4. V. Milutinović, J. Salom, V. Jelisavčić, V. Filipović, A. Mihajlović, Z. Ognjanović, Z. Marković, A. Kos, S. Tomažič, H. Maurer, "Heritage Portals and Heritage Mining: Synergizing Data and Image Mining Under Uncertainty Constraints," The IPSI BgD Transactions on Internet Research, Vol. 10 (2), pp. 53-56, 2014
- 5. E. Savic, J. Potic, Z. Babovic, G. Rakocevic, V. Strineka, V. Milutinovic, "Sensor Nets and Data Mining in Medical Applications," The IPSI BgD Transactions on Internet Research, Vol. 10 (1), pp. 28-33, 2014.
- 6. E. Varga, B. Furlan, V. Milutinovic, "Document Filter Based on Extracted Concepts," The IPSI BgD Transactions on Internet Research, vol. 6(1), pp. 5-9, 2010.
- 7. S. Tomazic, V. Milutinovic, "Hot Topics in Computer Science and Engineering,"The IPSI BgD Transactions on Internet Research, vol. 6(1), pp. 31-35, 2010.
- 8. Z. Babovic, D. Jovic, V. Milutinovic, "Survey of eGovernment Services in Serbia," Informatica (Slovenia), vol. 31(4), pp. 379-396, 2007.
- 9. V. Milutinovic, S. Tomazic, "How to Ruin the Carrier of a Ph.D. Student: Precise Guidelines," The IPSI BgD Transactions on Advanced Research, vol. 3(2), pp. 1-2, 2007.
- 10. B. Furht, V. Milutinovic, "Advances in Memory Management," Journal of the Electrotechnical Faculty of the University of Liubliana, 1988.

# Техничка Решења М80

- 1. Ivković S., Ilić L., Radojičić R., Stanković M., Babović Z., prof. Bojović M. i prof. Milutinović V. "Akceleracija algoritma Izvor-ponor modela za vremensku prognozu", 2015 (M83 Novi tehnološki postupak).
- 2. Jelisavčić V., Korolija N., Babović Z., prof. Bojović M., prof. Milutinović V. "Sistem za obučavanje neuralnih mreža na velikim podacima zasnovan na Apache Spark platformi", 2015 (**M85 Softver**).
- 3. Mihajlovic A., Marinković B., Milutinović V., Jelisavčić V., Ognjanović Z., Knežević M., "Serbia Forum," 2015 (**M84 Bitno poboljšani softver**).
- 4. V. Milutinovic, "Digital Data Modem Design," Purdue University Technical Report, 1985.

# arXiv

- V. Milutinovic, M. Djordjevic, E. Azer, K. Yoshimoto, K. (IU), G. Klimeck (Purdue), A. Tsuda (Harvard), M. Kosanic, M. Ilic (MIT), Z. Babovic, N. Filipovic (UKG), M. Bojovic, N. Korolija, M. Kotlar, B. Miladinovic, S. Stankovic, N. Trifunovic (ETF), M. Valero (UPC), M. Desanto (USF), J. Skorucak (ETH), E. Neuhold (UNIWIE), I. Ratkovic (ET, San Francisco, California, USA), L. Dipietro (HI, Boston, Massachusetts, USA), J. Salom (Israel), "The Ultimate DataFlow for Ultimate SuperComputer-on-a-Chip," arXiv, 31.1.2021.
- 2. M. Kosanic (ETF), V. Milutinovic (IU), M. Ilic (MIT), "A Survey of Mathematical Aspects of Machine Learning in GeoPhysics: The Cases of Weather Forecast, Wind Energy, Oil and Gas Exploration," arXiv, 31.1.2021.

# Међународни и национални пројекти

Пројекти које је радио кроз Универѕитет у Београду:

- 1. МПНТР ИИИ44006 Развој нових информационо-комуникационих технологија, коришћењем напредних математичких метода, са применама у медицини, телекомуникацијама, енергетици, заштити националне баштине и образовању, Руководилац потпројекта, 2011-2016.
- 2. Иновациони пројекат МПНТР #N5QQ5C: Примена метода за проналажење знања над великом количином података, 2014-2015.
- 3. Иновациони пројекат МПНТР #451-03-00605/2012-16/198: Клауд сервиси за апликације са захтевима за високим перформансама, 2011-2012.
- 4. EY FP7 προjeκατ #288076 BALCON: Boosting EU-Western Balkan Countries research collaboration in the Monitoring and Control area, 2010-2012.
- 5. EV FP7 προjeκατ #205494 ProSense: Promote, Mobilize, Reinforce and Integrate Wireless Sensor Networking Research and Researchers: Towards Pervasive Networking of West Balkan Countries and the EU, 2007-2010.
- 6. Иновациони пројекат МПНТР #391-00-00027/2009-02/142: Софтвер за аквизицију, мониторинг и обраду података са сензорских мрежа у систему даљинског грејања, 2009-2010.
- 7. Ey FP7 προjeκατ #224297 ARTreat: Multi-level patient-specific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hand-on training, 2009-2011.
- 8. EУ FP7 пројекат HiPEAC: European Network of Excellence on High Performance and Embedded Architecture and Compilation, 2008-2012.
- 9. EУ FP6 пројекат #045472 We-Go:Enhancing Western Balkan eGovernment expertise, 2007-2008.
- 10. Иновациони пројекат МПНТР #451-01-02960/2006-70: Интероперабилни оквир за е-говернмент сервисе, 2007-2008.
- 11. Иновациони пројекат МПНТР #451-01-0065/2008-01/128: Мрежа знања е-Говернмент сервиса, 2008-2009.

Пројекти које је радио 80их година кроз Purdue University:

- 12. DARPA GaAs 200MHz RISC Microprocessor
- 13. DARPA GaAs Systolic Array for Gram-Schmidt Orthogonalization
- 14. NCR Basic VM Architecture for High-Level Languages
- 15. NCR Improved VM Architecture for High-Level Languages

Пројекти које је радио 70их у Институту Михајло Пупин

- 16. КТ радио модем (17 чврсто спрегнутих микропроцесора који раде ДФТ и arctg)
- 17. ССІТТ модем за телефонске канале на брзини 4800 бита/сек.

Индустријско истраживање и иновације:

- 18. Cache Injection, Intel, USA.
- 19. High-performance computer architecture, TechnologyConnect.
- 20. High-performance computer architecture, BioPop.
- 21. KT modem, IBM.
- 22. High-performance computer architecture, AT&T.
- 23. High-performance computer architecture, RCA.
- 24. High-performance computer architecture, Honeywell.
- 25. High-performance computer architecture, Fairchild.
- 26. High-performance computer architecture, HP.
- 27. High-performance computer architecture, Encore.
- 28. Split Cache 3a Sun Microsystems.
- 29. Иновације за фирму NCR током 90их година. Подршка за 8 тадашњих постдипломаца ЕТФ-а.
- 30. Имплементација микропроцесора Intel i860 у .isp за силицијумску компилацију у сложеним микропроцесорским системима (90их), описана до детаља у раду објављеном у IEEE Computer.
- 31. Educator P2P, Panthesis, for Boeing, USA, 2004.
- 32. Multimedia, IPSI-Fraunhofer Institute, Germany, Darmstadt, 2003-2004.
- 33. Иновације у домену Storage Technologies, за фирму StorageTek (касније Sun Microsystems, па Oracle Inc.) (после 2000).
- 34. Online betting, Finsoft, UK, London (касније GTECH, USA) (2005-2015).
- 35. Software Cache Management, Dow Jones, USA, 2006.
- 36. Banking applications, Komercijalna Banka, Srbija. (после 2010).
- 37. Banking applications, Banca Intesa, Srbija (после 2010).
- 38. Banking applications, Eurobank a.d., Srbija (после 2010).
- 39. ERP applications, Delta Holding, Srbija (после 2010).
- 40. Иновације у домену DataFlow, за фирму Maxeler Technologies (после 2010), описане у раду објављеном у часопису Communications of the ACM и више књига издатих од Springer и Elsevier издавача.

# Предавања по позиву

Одабрана предавања по позиву изван Европе (100) на актуелне теме из архитектуре рачунара (GaAs, RISC, DSM, DataFlow):

#### USA:

- 1. U of California, San Diego, 1983
- 2. U of California, Irving, 1985
- 3. UCLA, 1985
- 4. USC, 1985
- 5. U of California, Berkeley, 1991
- 6. Stanford, 1991
- 7. U of California, Santa Barbara, 1995
- 8. U of California, Santa Clara, 1995
- 9. Lawrence Livermore National Labs, 1997
- 10. Jet Propulsion National Labs, 1997
- 11. Fairchild, California, 1985
- 12. Intel, Oregon, 1986
- 13. Honeywell, Minnesota, 1986
- 14. CDC, Minnesota, 1986
- 15. ElectroSpace, Texas, 1987
- 16. AeroSpace, Texas, 1987
- 17. NCR, Dayton, Ohio, 1989
- 18. Ohio State U, 2016
- 19. Indiana U, Bloomington, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023.
- 20. Purdue U, West Lafayette, Indiana, 1983-2001, 2012-2023
- 21. IUPUI, Indianapolis, 2012
- 22. U of Indianapolis, 2012
- 23. UIUC, Urbana-Champain, 2017, 2023
- 24. U of Chicago, 1985
- 25. U of Wisconsin, 2016
- 26. U of Michigan, 2016
- 27. U of Colorado in Boulder, 1987
- 28. U of Missouri in St. Louis, 1982
- 29. U of Tennessee in Louisville, 2016
- 30. U of Georgia in Atlanta, 2016
- 31. FAU, Boca Raton, Florida, 2014
- 32. FIU, Miami, Florida, 2014
- 33. U of Miami, Florida, 2014
- 34. U of Central Florida, Orlando, 2014

- 35. U of Alabama, Huntsville, 2013
- 36. U of Alabama, Birmingham, 2013
- 37. Princeton, 2017
- 38. NJIT, New Jersey, 2017
- 39. RCA, New Jersey, 1983, 1984, 1985, 1986, 1987
- 40. ATT, New Jersey, 1989
- 41. World Bank, Washington DC, 2016
- 42. U of Mariland, 1989
- 43. CMU, Pittsburgh, 2016, 2019
- 44. Temple, Philadelphia, 2016
- 45. Yale, 2005
- 46. Brown, 2005
- 47. NYU, 2003, 2018
- 48. CUNY Albany, 2005
- 49. Columbia, 2015
- 50. Brooklyn Poli, 1985
- 51. Yahoo, NY, 2015
- 52. IBM TJWatson, 1989, 2015, 2017
- 53. CUNY Binghampton, 1988
- 54. Cornell, 1985
- 55. Brooklyn Poli, NY, 1985
- 56. Mahnattanville U, 2015
- 57. Fordham U, 2015
- 58. Courant School of Math, 2018
- 59. MIT, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018
- 60. Harvard, 2016, 2017
- 61. Boston U, 2017
- 62. NEU, 2017
- 63. Dartmouth U, 1988
- 64. U of Massachussets in Amherst, 2017
- 65. U of Hawaii at Manoa, 1990
- 66. HICSS, 1990, 1991, 1992, 1993, 1994, 1995, 1996, 1997, 1998, 1999, ...

#### CANADA:

- 67. U of Toronto, 1985
- 68. U of Montreal, 2002
- 69. U of St Marry in New Hampshire, 1995
- 70. U of New Hampshire in Halifax, 1995

#### **MEXICO:**

- 71. Durango U, 2000, 2001, 2002
- 72. UNAM, Mexico City, 2002
- 73. U of Cuarnavaca, 2001
- 74. U of Puebla, 2001

- 75. Tech de Monterey, 2005
- 76. U of Zacatecas, 2003

#### AUSTRALIA:

- 77. U of Hobart, 1988
- 78. U of Brisbane at Gold Coast, 1992
- 79. Sydney U, 1988
- 80. Sydney U of Technology, 1988

#### JAPAN:

- 81. Tokyo U, 1985
- 82. Metropolitan Institute of Tokyo, 2010
- 83. Senday U, 2010
- 84. OKI Data, Tokyo, 1985

#### KOREA:

- 85. ISCA, 1997
- 86. Hyundai, 1997

#### CHINA:

- 87. Tsinghua, 2017
- 88. Shandong, 2017

#### SINGAPORE:

- 89. NTU, 1998
- 90. NIS, 1998

#### TURKEY:

- 91. Bogazici, Istanbul, 2011, 2013, 2015
- 92. Koc, Istanbul, 2015
- 93. Gazi U, Ankara, 2016
- 94. METU, Ankara, 2016

#### IZRAEL:

- 95. Technion, 1988
- 96. BerSheba, 1988
- 97. Rafael, Netania, 1988
- 98. Gabriel, Netania, 1988
- 99. ISCA, Eilat, 1988
- 100. U of Haifa, 1988

#### **EVROPA:**

Предавања по позиву у Европи су држана у 33 разне земље (укупно преко 300 предавања):

Србија, Црна Гора, Македонија, Босна и Херцеговина, Хрватска, Словенија, Албанија, Грчка, Бугарска, Румунија, Мађарска, Словачка, Чешка, Пољска, Русија, Естонија, Финска, Шведска, Норвешка, Немачка, Аустрија, Швајцарска, Италија, Француска, Белгија, Луксембург, Холандија, Енглеска, Велс, Ирска, Шпанија, Португалија і Кіраг.

#### Линкови са доказима у вези најбитнијих навода:

Докази за сваки наведени детаљ постоје у документима (доступни на увид) или на следећим линковима:

Purdue University, CE rang #9 (12 godina) https://engineering.purdue.edu/Engr/AboutUs/FactsFigures/Rankings

Indiana University, IT rang #7 (do sada 6 godina i dalje na neodredjeno vreme) https://cs.indiana.edu/contact/profile/index.html?Veljko Milutinovic

Predavao je u Becu i na Matematickom UNIWIE i na Tehnickom TUWIEN: <a href="https://ufind.univie.ac.at/en/course.html?lv=052820&semester=2018S">https://ufind.univie.ac.at/en/course.html?lv=052820&semester=2018S</a><a href="https://informatics.tuwien.ac.at/guests/">https://informatics.tuwien.ac.at/guests/</a> (GOSTUJUCI PROFESOR IZ SAD)

Sada predaje u Beogradu na MATF-u i ETF-u (ranije FON i FFH): Za MATF se moze videti raspored casova za tekuci semestar. Za ETF http://rti.etf.bg.ac.rs/rti/ms1ker (GOSTUJUCI PROF IZ SAD)

U ovom SCI radu je okupio sve tadasnje doktore nauka sa ETF-Racunarstvo: https://scholar.google.com/citations?user=qulgFtIAAAAJ&hl=sr&oi=ao#d=gs md cita-

d&u=%2Fcitations%3Fview op%3Dview citation%26hl%3Dsr%26user%3DqulqFtlAAAAJ%26cstart%3D20%26pagesize%3D80%26citation for view%3DqulqFtlAAAAJ%3A0izLltjtcgwC%26tzom%3D-60

Na ovom SCI radu su svi tadasnji doktori nauka sa MATF-Racunarstvo, osim jednog:

<a href="https://scholar.google.com/citations?user=qulgFtlAAAAJ&hl=sr&oi=ao#d=gs\_md\_cita-d&u=%2Fcitations%3Fview\_op%3Dview\_citation%26hl%3Dsr%26user%3DqulgFtlAAAAJ%26cstart%3D200%26pagesize%3D100%26citation\_for\_view%3DqulgFtlAAAAJ%3AMlg0yeAD4gqC%26tzom%3D-60</a>

U ovoj knjizi su svi doktori nauka sa katedre na FON-u kojoj pomaze: https://www.igi-global.com/book/handbook-research-high-performance-cloud/94528

U ovoj knjizi su kolege sa свих univerziteta u EU/US sa kojima saradjuje: <a href="https://www.igi-global.com/book/handbook-research-methodologies-applications-supercomputing/261119">https://www.igi-global.com/book/handbook-research-methodologies-applications-supercomputing/261119</a>