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## **БИОГРАФИЈА**

Вељко Милутиновић је рођен у Београду 4. маја 1951. На Електротехничком факултету у Београду је дипломирао (1976), након чега се запослио у Институту Михајло Пупин, где је радио на развоју микропроцесорских уређаја за потребе одбране. У том периоду је потпуно сам развио уређај за детекцију сигнала података пренесених преко КТ радио канала, који се базирао на 17 чврсто спрегнутих Интелових микропроцесора. Магистрирао је 1978. и докторирао 1982. на Електротехничком факултету, и одмах након тога отишао у САД (1982). Током боравка у САД, радио годину дана као доцент на универзитету FIU (Florida International University, Miami) до 1983.г, а затим је био 12 година ангажован на универзитету Purdue (West Lafayette, Indiana), прво као доцент по позиву до 1986.г, онда као доцент (tenure-track) Док је радио на Purdue универзитету, за агенцију DARPA развио је први 32-битни GaAs микропроцесор на чипу. У том периоду је имао консултантске уговоре са двадесетак водећих америчких компанија у домену рачунарске технике (Intel, Fairchild, RCA, NCR, IBM, HP, Micrisoft, Oracle, itd).

Године 1989. се вратио на Електротехнички факултет у Београду. За редовног професора на Универзитету у Београду изабран је 1996. године. Након одласка у пензију, ангажован је на Indiana University, Bloomington, SAD, и предаје Dataflow supercomputing.

Почев од 1995. ради на развоју dataflow суперрачунара. Предавања из ове области држао је на више светских универзитета: MIT (12 пута), Harvard (2 пута), Boston, NEU Boston, Dartmouth, U of Massachusetts at Amherst, USC, UCLA, Columbia, NYU, Princeton, NJIT, CMU, Temple, Purdue, IU, UIUC, Michigan, Wisconsin, Minnesota, FAU, FIU, Miami, Central Florida, Alabama, Tennessee, GeorgiaTech, OhioState, Imperial, King's, Manchester, Haddersfield, Cambridge, Oxford, Dublin, Cork, Cardiff, Edinburgh, EPFL (2 пута), ETH (2 пута), TUWIEN, UNIWIE, Karlsruhe, Stuttgart, Bonn, Frankfurt, Heidelberg, Aachen, Darmstadt, Dortmund, KTH, Uppsala, Karlskrona, Karlstad, Napoli, Salerno, Siena (2 пута), Pisa (2 пута), Barcelona (2 пута), Madrid, Valencia (2 пута), Oviedo, Ankara, Bogazici, Кос, Istanbul, Technion, Haifa, BerSheba, Weitzman Institute.

Објавио је преко 100 радова у часописима са SCI листе, 40 књига, и већи број радова на међународним конференцијама. Учествовао је као руководилац једне од тема на 10 пројеката финансираних од стране институција ЕУ (FP6, FP7, H2020, Donau, IPA, COST, itd...), и као руководилац пројекта на преко 40 развојних индустријских уговора. Изабран је за Fellow of the IEEE и Member of The Academy of Europe.

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## **Објављене књиге, поглавља у монографијама и едитоване монографије**

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## **Зборници међународних научних скупова М30**

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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 M50**

### **Радови у научним часописима M53**

1. V. Milutinovic, "DataFlow SuperComputing," Journal of the Electrotechnical Faculty of the Univeristy 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 Career 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 Ljubljana, 1988.

## **Техничка Решења M80**

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.

## **Међународни и национални пројекти**

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. ЕУ FP7 пројекат #288076 BALCON: Boosting EU-Western Balkan Countries research collaboration in the Monitoring and Control area, 2010-2012.
5. ЕУ FP7 пројекат #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. ЕУ FP7 пројекат #224297 ARTreat: Multi-level patient-specific artery and atherogenesis model for outcome prediction, decision support treatment, and virtual hand-on training, 2009-2011.
8. ЕУ FP7 пројекат HiPEAC: European Network of Excellence on High Performance and Embedded Architecture and Compilation, 2008-2012.
9. ЕУ 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. ССИТТ 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. КТ модем, 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 за 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
20. Purdue U, West Lafayette, Indiana, 1983, 2006, ..., 2019
21. IUPUI, Indianapolis, 2012
22. U of Indianapolis, 2012
23. UIUC, Urbana-Champaign, 2017
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 Maryland, 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 Binghamton, 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

Israel:

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

НАПОМЕНА: Предавања по позиву у Европи држана у 40 разних земаља.