

Veljko Milutinovic - Biography

2019

Prof. Veljko Milutinovic (1951) received his PhD from the University of Belgrade in Serbia, spent about a decade on various faculty positions in the USA (mostly at Purdue University and more recently at the University of Indiana in Bloomington), and was a co-designer of the DARPA's pioneering GaAs RISC microprocessor on 200MHz (about a decade before the first commercial effort on that same speed) and was a co-designer also of the related GaAs Systolic Array (with 4096 GaAs microprocessors). Later, for almost three decades, he taught and conducted research at the University of Belgrade in Serbia, for departments of EE, MATH, BA, and PHYS/CHEM. His research is mostly in datamining algorithms and dataflow computing, with the emphasis on mapping of data analytics algorithms onto fast energy efficient architectures. Most of his research was done in cooperation with industry (Intel, Fairchild, Honeywell, Maxeler, HP, IBM, NCR, RCA, etc...). For 10 of his books, forewords were written by 10 different Nobel Laureates with whom he cooperated on his past industry sponsored projects. He published 40 books (mostly in the USA), he has over 100 papers in SCI journals (mostly in IEEE and ACM journals), and he presented invited talks at over 400 destinations worldwide. He has well over 1000 Thomson-Reuters WoS citations, well over 1000 Elsevier SCOPUS citations, and about 4000 Google Scholar citations. His Google Scholar h index is equal to 30. He is a Life Fellow of the IEEE since 2003 and a Member of The Academy of Europe since 2011. He is a member of the Serbian National Academy of Engineering and a Foreign Member of the Montenegro National Academy of Sciences and Arts.

2011

Professor Milutinovic is a Fellow of the IEEE, 2003.

Professor Milutinovic is known as the co-architect/co-designer of the World's first 200MHz microprocessor, for DARPA, back in 80s, a decade before Intel. In 90s he was responsible for the silicon-compiler based design of a clone of Intel i860 (the first 64-bit microprocessor), done for a Japanese customer, for the I/O pump of Encore/Compaq (which was advertized as the fastest on the Planet), and for the studies leading to the e-business oriented multiprocessor workstation of NCR. More recently he is active in infrastructure for e-business on the Internet, and was responsible for a number of prototype designs leading to successful market products, including but not limited to: Genetic search based on the principles of spatial/temporal/semantic mutation, Customer satisfaction based accelerators for e-commerce, semantic web based gallery for 3D presentation of 2D objects, data mining based inverse engineering of a G-Force graphics card, and Socratenon system for e-education on the Internet. All these projects are precisely described in the open literature, in about 50 IEEE journal papers, plus in about 50 papers in other journals or book chapters, and in numerous conference publications. These papers are widely referenced in the open literature, and in the SCI (over 300).

Professor Milutinovic has been consulting for a number of high-tech companies like Intel, IBM, GE,

AT&T, NCR, Honeywell, Fairchild, RCA, Unisys, etc. He was on the 5-person SAB (Scientific Advisory Board) of Creative Technologies in Boston, Massachusetts (2 out of 5 are Nobel Laureates, Jerry Friedman of MIT, and Bob Richardson of Cornell), on the 5-person SAB of BioPop in Charlotte, North Carolina (which is one of the fastest growing companies in Q3 of 2001), and on the SAB of BCW in San Jose, California (a consulting company in e-business).

Professor Milutinovic presented over 300 invited talks at all major universities in the World (MIT, Berkeley, Stanford, ...), in both computer engineering and business administration (Dartmouth, ...), on all 5 continents.

He taught regular grad courses at various universities in the World, in 7 different languages (English, German, Serbian, Russian, Polish, Spanish, and Italian), and gave short invited lectures in 3 more (French, Czech, and Swedish).

Professor Milutinovic published over 20 books with major USA publishers: Prentice-Hall, Wiley, Kluwer, North-Holland, McGraw-Hill, IEEE CS Press, ACM Press, etc. One of them was the best seller of all times for its publisher (IEEE CS PRESS), and for seven of them Forewords were written by Nobel Laureates (Bob Wilson, Leon Cooper, Robert Richardson, Jerry Friedman, Herb Simon, Harry Kroto and Arno Penzias).

Professor Milutinovic was born in 1951, and all his formal education, including the Ph.D. (1982) are from the University of Belgrade, Serbia. From 1982 till 1990 he was on the faculty of Purdue University (number 5 in computer engineering, in the USA). Starting with 1990 he is on the faculty of the University of Belgrade, where he teaches courses in infrastructure for e-business on the Internet, Data Mining and Semantic Web, microprocessing, and VLSI. His courses combine the expertise in system, software, and business administration.

He holds a silver and a bronze medal from the National Championship of Montenegro in sailing (class 470) and has taken part in the national amateur competitions of Serbia in long distance horsebackriding and rollerblading.

Positions

- 1990 – present, School of Electrical Engineering, University of Belgrade, Serbia, Full Professor and Computer Area Director; project management and consulting in the field of computer architecture, e-Business, e-Government, CMMI project management, Data Mining and Semantic Web, micro-processing, and VLSI; teaching Ph.D., M.Sc., and B.Sc. courses: VLSI, Microprocessor Design, E-business on the Internet, Data Mining and Semantic Web, Professional Life Time Management for Engineers
- 1982-1989 Purdue University, West Lafayette, Indiana, USA, Tenure Track Assistant Professor, Ph.D. and M.Sc. thesis supervision. Teaching Ph.D., M.Sc., and B.Sc. courses related to Microprocessor Systems and VLSI (Very Large Scale Integration) Design
- 1975 – 1981 Institute Michael Pupin, Belgrade, Serbia. Researcher in the area of high-end computing and communication technology

Major awards:

- 2003, Fellow of the IEEE
- 2000, Member, Serbian Academy of Engineering Sciences, Belgrade, Serbia

Commission of trust:

- 1997, Advisory Board, TechnologyConnect, Boston, Massachusetts, USA
- 1994, Advisory Board, BioPop, Clemson, South Carolina, USA

Recent project-oriented awards:

- 2010 Austria & Serbia, IPSI Award, Raiffeisen Bank International - was engaged on CMMI works for the eGov-oriented core developments for the Raiffeisen Bank of Austria. The role of CMMI in this project was to organize, control, and monitor about 200 programmers working from India.
- 2009 Croatia & Serbia, University of Belgrade Award, Project Leader, Interoperability framework for e-Government services - was responsible for the project focused on the technical and semantic interoperability using standards, service-oriented architecture, web-based services, and so on.
- 2008 Austria & Western Balkan Countries, University of Belgrade Award, EU FP6 WeGo team Leader - aimed at improving sophistication of eGovernment services in Serbia and other Western Balkan countries, by using best practices and experiences from top ranked EU countries services (AUT, EST, SLO).
- 2007 USA & Serbia, IPSI Award, Wall Street Journal - was responsible for implementation of Dow Jones and Wall Street software, in the domain of interactive web, which involved the same software constructs as those in modern-day eGov software. The project was rated top-secret, and received high marks by customers.

Recent papers-oriented award for benefit to students, by IPSI, Belgrade, with the following quote:

- The paper "The Best Method to Perform Research" is listed as hit #1 (of about 100 million hits) for Google search using the key "Best Method."
- The paper "A Good Method to Present Research" is listed as hit #1 (of about 1 billion hits) for Google search using the key "Good Method."

Names of PhD students supervised:

- At Purdue University: Salim Lakhani, Gihyun Jung, Sun Park, Peter Chang.
- At Belgrade University: Milo Tomasevic, Igor Tartalja, Jelica Protic, Milivoje Aleksic, Emil Jovanov, Milos Kovacevic
- At Valencia University: Julio Sahuquillo, Salvador Petit