Central Connecticut State University
Department of Computer Science

VITAE

Irena Pevac, Ph.D.

POSITIONS:	Research Fellow, Academy of Science, Belgrade	1983 - 1991
	Visiting Professor, University of Texas at Austin	1988 (Fall)
	Assistant Professor, University of Belgrade	1988 - 1991
	Research Fellow, University of Texas at Austin	1992 (Spring)
	Assistant Professor, CCSU, New Britain	1992 - 1998
	Associate Professor, CCSU, New Britain	1998 - now

EDUCATION:	BA, Mathematics, University of Belgrade
	MS, Computer Science, University of Belgrade
	Ph.D., Computer Science, University of Belgrade

TEACHING:

Courses taught at CCSU:

CS113 Introduction to Computers
CS115 Workshop in Computer Science
CS151 Introduction to Computer Science
CS152 Advanced Programming Concepts
CS213 Applications of Computer Programming
CS290 Topics in Computer Science - Visual Basic
CS290 Topics in Computer Science - Java
CS300 Cooperative Experience
CS389 Independent Study
CS407 Advanced Topics in CS Delphi
CS460 Database Management
CS460 Database Management - online
CS460 Database Management - independent study
CS463 Algorithms
CS481 Theory of Computation - independent study
CS498 Research Project
CS501 Foundations of Computer Science
CS580 Advanced Database Design and Management
CS580 Advanced Database Design and Management- independent study
CS595 Capstone Coordinator

Courses taught at other institutions:

Automated Theorem Proving
Artificial Intelligence
Algebra
Precalculus
Calculus I
Calculus II
Analysis
Trigonometry

PUBLICATIONS

List of the published monographs and custom published books

[1] Hotomski P. Pevac I. Mathematical and programming problems of artificial intelligence in the area of automated theorem proving. (Serbo-Croatian) Naucna knjiga, monograph, Belgrade, 1988. 201 pages.

[2] Hotomski P. Pevac I. Mathematical and programming problems of artificial intelligence in the area of automated theorem proving. (Serbo-Croatian) Naucna knjiga, monograph, Belgrade, 2nd edition ,1991. 201 pages.

[3] Pevac I. Artificial Intelligence, (Serbo-Croatian) Student manual, PMF Belgrade 1989. 96 pages.

[4] Pevac I, Calvert J.: *Practicing Recursion with Pascal*, Simon & Schuster 1995. 83 pages.

[5] Pevac I, Calvert J.: *Practicing Recursion with Pascal*, Simon & Schuster 1996. 2nd edition, 83 pages.

[6] Pevac I. Recursive Examples in Java. CCSU, XanEdu Original Works, 2005. 138 pages.

List of technical reports

[7] Cvetkovic D. Jakovljevic D., Kolar D., Pevac I., Radosavljevic Z: Project for Theorem Prover Improvement in the GRAPH System. (Serbo-Croatian) *Study ETF* Belgrade 1988.

[8] Pevac I. A Soundness Proof of PC-Rules *Technical report AI 93-113, Artificial Intelligence Laboratory*, University of Texas at Austin 1993.

List of peer reviewed book chapters

[9]   Pevac I. Pevac L. Search Reduction Techniques in Jumping Games, *Intelligent Systems*. (Editor Yfantis E. A.) Selected and edited papers from the GWIC Conference, Kluwer Academic Publishers, 1995, 167- 173.

[10]   Pevac I. Analysis and Visualization of Time Complexity in Fractal Algorithms. *Computer Science and Information Systems* (PART VI: Computer Science Research in Relation to Theoretical and Natural Sciences and Engineering) (Ed. Dr Petratos and Dr Michalopoulos). ATINER, Athens Institute of Research, Greece, 2005, pages 337-350.

[11]   Pevac I. Comparison of E-R, UML, IDEF1X, and SOM Database Modeling Paradigms. *Current Advances in Computing, Engineering and Information*. ATINER, Athens Institute of Research, 2008, (Editors Petratos and Dandapani), pages 279-286.

List of reviewed papers published in conference proceedings

[12]   Pevac I. Some properties of deterministic and nondeterministic regular translations. *Sixth Congress of Balkan Mathematicians*. Varna 1977, 44-45.

[13]   Cvetkovic D., Pevac I. The Generation of sentences equivalent to a given sentence. *Proc. 4th International Yugoslav Symposium of Computer Technology and Problems of Informatics, Informatica 81*, Ljubljana 1981, 3 107, 1- 3.

[14]   Pevac I. Some improvements of the proving strategy in the theorem prover in the system GRAPH, *Bulletins for Applied Mathematics XLVIII*, Budapest (1987), 137-152.

[15]   Cvetkovic D., Jakovljevic D., Pevac I. An attempt of computer generation of nonstandard steps in theorem proving. (Serbo-Croatian) Proc. *ETAN* Sarajevo 1988. 11-18.

[16]   Pevac I., Pevac L. Computing procedure for solving the best location problem. *BAM 646/89 (LIII) Bulletin for applied math. mech. PAMM* 1989. 119-132.

[17]   Pevac I. Heuristic approach in artificial intelligence. ``State of the art and applications of Artificial Intelligence'', (Serbo-Croatian) Dubrovnik 1989.  *Conf. proc. Tehn. fak. ``Mihajlo Pupin''* Zrenjanin 1990. 47-66.

[18]   Cvetkovic D., Hotomski P., Kraus L.,Jakovljevic D., Pevac I., Radosavljevic Z., Simic S. Ten years of Development and Using of Expert System GRAPH. ``State of the art and applications of Artificial Intelligence'', (Serbo-Croatian) Dubrovnik 1989.  *Conf. proc. Tehn. fak. ``Mihajlo Pupin''* Zrenjanin 1990. 25-46.

[19]   Pevac I. Soundness proof of PC-Rules. *Proc. of the Seventh Florida AI Research*

Symposium, FLAIRS-94, Pensacola, Florida, May 1994, 174-178.

[20]   Pevac I. Pevac L. Search Reduction Techniques in Jumping Games, *Third Golden West International Conference*, Las Vegas, Nevada, June 1994.

[21]   Pevac I. Techniques for Assessing Student Learning in an on-line Database Course International Conference on Teaching On-Line in Higher Education (TOHE) November 2002, Proc. published on the web http://www.ipfw.edu/as/tohe/2002

[22]   Rajaravivarma. R.,Pevac, I. When to Introduce Objects in Teaching Java. *Proc. of 35 IEEE SSST* March 2003, Morgantown, Virginia, pp 437-440.

[23]   Pevac I. Performance Analysis of Recursive Graphical Curves. *Proc of International Conference on Computer Science and its Applications, ICCSA* July 2003, San Diego, pp 46-49.

[24]   Pevac I. Visualizing the Time Complexity of Recursive Graphical Algorithms. Proc of 2nd *International Conference on Computer Science and its Applications, ICCSA* July 2004, San Diego, pp 88-92.

[25]   Pevac I. Analysis and Visualization of Time Complexity in Fractal Algorithms. *Computer Science and Information Systems* (PART VI: Computer Science Research in Relation to Theoretical and Natural Sciences and Engineering) (Ed. Dr Petratos and Dr Michalopoulos). Athens Institute of Research, Greece, 2005, pages 337-350.

[26]   Pevac I. Using Visualization to Teach Recursion throughout a Computer Science Curriculum. *WORLDCOMP'07 - FECS, Proc. of the 2007 Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering*, Las Vegas, NV, SCREA Press, 2007. (Ed. Arabnia, Clincy) , pages 212-218.

[27]   Pevac I. Comparison of E-R, UML, IDEF1X, and SOM Database Modeling Paradigms. *Current Advances in Computing, Engineering and Information*. Athens Institute of Research, 2008, (Editors Petratos and Dandapani), pages 279-286.

[28]   Pevac I. An Introduction to Programming Course Made Exciting and Inviting for Non-majors. *Proc of the 2009 International Conference on Engineering and Mathematics ENMA'09* Bilbao, Spain, Purple Gate publishing, 2009, pages 197-203.

[29]   Pevac I. Using Performance Equivalent Graphical Examples to Visualize and Simplify Time Efficiency Analysis of Recursive Algorithms. *WORLDCOMP'09 – FECS, Proc. of the 2009 Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering,* (Ed. Arabnia, Clincy), Las Vegas, NV, SCREA Press, 2009, pages 254-260.

[30]   Pevac I., Carpenter T. ESRATEA Educational Software for Recursive Algorithm Time Efficiency Analysis, *WORLDCOMP'10 – FECS, Proc. of the 2010 Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering*, (Ed. Arabnia, Clincy), Las

Vegas, NV, SCREA Press, 2010, pages 367-373.

[31] Pevac I. Gadicharla R., Odesina O., Chaganti S. TARA Application for Time Analysis of Recursive Algorithms. *WORLDCOMP'11 – FECS, Proc. of the 2011 Int. Conf. on Frontiers in Education*: Computer Science & Computer Engineering, (Ed. Arabnia, Clincy, Deligiannidis), Las Vegas, NV, SCREA Press, 2011, pages 357-362.

[32] Pevac I. Using Templates to Introduce Time Efficiency Analysis in an Algorithms Course. *WORLDCOMP'11 – FECS, Proc. of the 2011 Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering*, (Ed. Arabnia, Clincy, Deligiannidis), Las Vegas, NV, SCREA Press, 2011, pages 373-379.

List of peer reviewed papers published in journals

[33] Irena Marinkovic Pevac: The unsolvability of the emptiness problem of the two deterministic finite transducer mappings, *Matematicki vesnik* 1 (14)(29), Belgrade, 1977, 49-51.

[34] Pevac I. Some closure properties of the nondeterministic regular translations. *Publ. Inst. Math*. (Belgrade) (N.S.) 30(44) 1981, 157-160.

[35] Pevac I. On state reduction in deterministic finite transducers and some properties of deterministic regular translations. *Publl, Inst. Math*. (Belgrade) (N.S.) 32(46) 1982, 137-143.

[36] Cvetkovic D., Pevac I. Algorithms for transforming first order formulas in their natural form. *Publ. Elektrotehn. Fak*. Univ. Belgrade. Ser. Mat. Fiz. No 735 - No 762 (1982), 155-160.

[37] Cvetkovic D., Pevac I. Discussing graph theory with a computer III, Man-machine theorem proving. *Publ. Inst. Math*. (Belgrade) 34(48) (1983), 37-47.

[38] Cvetkovic D., Pevac I. Some heuristics in automatic theorem proving. *Publ. Inst. Math*. (Belgrade) 35(49), 1984, 167-171.

[39] Pevac I. Heuristic for avoiding skolemization in theorem proving, *Publ. Inst. Math*. (Belgrade) 38(52), 1985, 207-213.

[40] Cvetkovic D., Pevac I. Man-machine theorem proving in graph theory. *Artificial Intelligence*, North Holland 35 I (1988) 1-23.

[41] Pevac I. An Approach to Increase Student Motivation in Introductory Programming Course, *International Journal for Knowledge, Science and Technology*, April 2010, number 2, volume 1, 59-65.

[42]   Pevac I. First Experiences with Software Tool for Recursive Algorithm Time Efficiency Analysis. *Journal of Computing Sciences in Colleges*. Volume 28 (No 1), 2012, 56-65.

Research Grants

- *Visualizing the Performance Analysis of Recursive Algorithms*. University Research Grant, 2004.

- *Developing Educational Software for Algorithm Efficiency Analysis by Utilizing Equivalent Graphical Examples.* University Research Grant, 2010-2011.

- *Investigating the influence of the use of ESRATEA software on student learning of recursive algorithm time performance analysis.* University Research Grant, 2011-2012.

SERVICE TO THE DEPARTMENT AND UNIVERSITY

1) Service to the department

- Served on the committee to buy, install and maintain SUN workstations.
- Participated and organized Computer Science Workshops as a part of Science Program for Middle School Students from Hartford area. Meetings were held at CCSU in 1995, 1996, 1997, and 1998 several times per school year. Other participants were Joan Calvert and Neli Zlatareva.
- Participated in organization of "Java Jam", an event sponsored by The Hartford Chapter of ACM and Prentice Hall and organized by CS Department, CCSU. Java Jam was a one-day event with Paul and Henry Deitel as principal speakers taking place at CCSU on September 28, 1996. Event had 90 participants.
- Participated in organization and survey of the event "Networking Women in Science, Mathematics and Technologies". It took place at CCSU on September 12, 1996. There were 79 participants. They had to fill out a questionnaire. To process the survey a database, based on their answers, was created and query results of the above were provided.
- Member and a president of the Budget Committee in 1995-1996, and a member for 1996-2000 school year. Prepared the budget proposals for 1995-1996, 1999-2000 school years.
- Member of the Search Committee for one Assistant Professor position in Computer Science in the spring of 1996, Chair of the Search Committee in the spring of 1997, Member of the Search Committee in the spring of 2000 and in the spring of 2002.
- Departmental Curriculum Committee member 1998- 2011.
- Departmental Graduate Curriculum Committee 2000-2011.
- DEC (alternate) in 1999-2000, DEC chair in 2000-2001, DEC (alternate) in 2002-2003, DEC member 2005.
- Coordinator for the Computer Science Advisory Board 2000 -2007. Sent invitations, resolved scheduling problems for the meetings, ordered food, and reserved room.
- When our department was undergoing evaluations procedures by the ABET CAC the most

of the work for the visitation was done by Professor Kjell as a coordinator. Each member of the department had to prepare the display folder for the courses that he/she taught in that semester. That included course outlines, lecture notes, syllabi, and graded samples of tests and projects for below average, average and good students. My part was to make course display for CS152, CS460, CS463, and part of display for CS151.

- Wrote assessment documents for CS152, CS460, and CS463 courses in the fall of 2006, spring 2010, and spring 2011.
- Advised Undergraduate Students (20 - 40 students per semester), and participated in special advising during open houses.
- Faculty advisor for Upsilon Pi Epsilon CCSU chapter since 2009-2012.

2) Service to the university

- University Curriculum Committee member in 1997-1999.
- General Education subcommittee member in 1997 – 1999.
- Arts and Sciences Subcommittee Mode 2 representative in 1997 - 1999.
- Served as secretary of General Education subcommittee and designed a Web page for Curriculum Committee.
- University Advisory Committee for CSU Professorship - member Spring 2000.
- University Curriculum Committee alternative in 200-2005.
- Information Technology Committee member 2001-2003.
- Library Liason 2002-2003.
- Faculty Senate member 2003-2005, alternative 2006-2008.
- Diversity Committee member 2005-2006.
- Promotion and Tenure Committee member 2006-2007.
- Excellence in Teaching Committee member 2007.
- Academic Standards Committee member 2010-2012.
- Information Technology Committee member 2011-2013.

3) Service to the private and public organizations as a representative of CCSU

- Hired by McGraw-Hill to review Dean & Dean's textbook I*ntroduction to Programming with Java – A Problem Solving Approach* in 2007.

- Hired by Pearson to prepare examples and their solutions for the international edition of David Schneider's book *An Introduction to Programming Using Visual Basic* in 2008.

- Served as recognized expert in the Computer Science field to evaluate Dr. Warms promotion materials at School of Engineering Design, Technology, and Professional Programs, Penn State, Abington.

PROFESSIONAL ACTIVITY

Conferences, symposia where presented:

[1] Seventh Annual Computing Conference. WCSU, Danbury, March 1993.

[2] Psychology Department Colloquia. CCSU, New Britain, April 1993.

[3] Women's Center "Telling her Story". CCSU, New Britain, April 1993.

[4] Fourth Faculty Research Conference. SCSU, New Haven, October 1993.

[5] FLAIRS - Florida Research AI Symposium, Pensacola, May 1994.

[6] GWIC - Third Golden West International Conference on Intelligent Systems. Las Vegas, Nevada, June 1994.

[7] Ninth Annual Academic Computing Conference SCSU, April 1995.

[8] CSU Fifth Faculty Research Conference WCSU, September 1995.

[9] Tenth Annual Academic Computing Conference CCSU, April 1996.

[10] Conference - 50th anniversary of Math. Institute, by invitation only, December 1996.

[11] Thirteen Annual Academic Computing Conference SCSU, April 1999.

[12] 6th CSU Research Conference, ECSU, October 1999.

[13] 14th Annual Academic Computing Conference CCSU, April 2000.

[13] 16th Annual Academic Computing Conference ECSU, April 2002.

[14] International Conference on OnLine Teaching in Higher Education, Indiana University Nov 2002.

[15] NSF sponsored Workshop *Java an Eventful Approach*, Williams College, Williamstown, July 2002.

[16] Consortium for Computing Sciences in Colleges Northeastern Region, CCSCNE, April 2003.

[17] Thirteen Annual CSU Academic Computing Conference, CCSU, April 2004.

[18] International Conference on Computer Science and its Applications, ICCSA, July 2003.

[19] Mathematical Colloquium, CCSU, New Britain, CT, 2004.

[20] 2nd International Conference on Computer Science and its Applications, ICCSA, July 2004.

[21] Annual Academic Computing Conference, CCSU 2004.

[22] International Conference on Computer Science and Information Systems, ATINER, Athens, Greece, June 2005.

[23] Connecticut State University Faculty Research Conference, CCSU, New Britain, CT, October 2005.

[24]   International Conference on Computer Science and Information Systems, ATINER, Athens, Greece, June 2007.

[25] World Congress WORLDCOMP'07 - FECS, Proc. of the 2007 Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering, Las Vegas, NV, July 2007.

[26] 23rd Annual Consortium for Computing Sciences in Colleges Eastern CCSCE, St. Joseph College, Patchogue, NY, Oct 2007.

[27] International Conference on Engineering and Mathematics ENMA'09, Bilbao, Spain, June 2009.

[28] World Congress WORLDCOMP'09 - FECS, Proc of Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering, Las Vegas, NV, July 2009.

[29] Faculty Research Conference, Central Connecticut Sate University, New Britain, April 2010.

[30] World Congress WORLDCOMP'10 - FECS, Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering, Las Vegas, NV, July 2010.

[31] Faculty Research Conference, Western Connecticut Sate University, Danbury, April 2011.

[32] World Congress WORLDCOMP'11 – FECS, Int. Conf. on Frontiers in Education: Computer Science & Computer Engineering, Las Vegas, NV, July 2011.

[33] Nineteenth Annual Consortium for Computing Sciences in Colleges Midwestern, CCSC-MW, Eastern Illinois University, Charleston, IL, October 2012.

[34] 10th Annual International Conference on Information Technology & Computer Science, ATINER, Athens, Greece, May 2014.

HONORS AND PROFESSIONAL MEMBERSHIPS

- Biography included in the Twenty-Third, Twenty-Fourth and Twenty-Fifth Edition of the Dictionary of International Biography and in the Thirteenth Edition and Fourteenth Edition of Who is Who among Women.

- Honorary member of Upsilon Pi Epsilon - Honor Society for the Computing Sciences.

- Excellence in Teaching Honor Roll, CCSU 1988.

- Member of the Asociation of Computing Machinery (ACM).

- Member of the Institue of Electrical and Electronic Engineering (IEEE) Computer Society.

- Nominated by the International Biographical Center (IBC) as International Educator of the Year for 2003.

- Nominated by the International Biographical Center to be a member of the Order of International Fellowship in 2004.

- Nominated by the International Biographical Centre for one of the IBC Foremost Educators of the World - 2008.

- Nominated by the International Biographical Centre for the International Plato award in 2006 and 2009.

- Nominated by the International Biographical Center to be one of Top 100 educators in 2005, 2006, 2007, and 2008.

- Named as a member of the International Biographical Center TOP 100 EDUCATORS in 2012.

- Excellence in Teaching Honor Roll, CCSU 2013.