Vladan V. Jovanovic Ph.D.
Department of Computer Sciences
Allen E. Paulson College of Engineering and Information Technology
Georgia Southern University, Statesboro, GA 30460-7997
vladan@georgiasouthern.edu

Focus on Design Methodology and Standardization for Software and Data Intensive Systems
Design as well as curriculum development in areas of CS/ CE/IS/IT/SwE/SysE

Education

Ph.D. in Software Engineering 1982, University of Belgrade, Yugoslavia, - Dissertation
"Standardized Software Development"
M. S. in Computer Information Systems 1978, University of Belgrade, Yugoslavia
- Thesis "Automation of Information Systems Design"
B. Eng. in Cybernetics Information Systems 1975, University of Belgrade, Yugoslavia
- Diploma work "Automation of the Intercity Bus System using In-Memory Database"

University Teaching

2001-present
Professor of Computer Sciences, Georgia Southern University, Full Graduate Faculty Status in 2002.

1995-2001
Associate Professor of Computer Information Systems (CIS) University of Detroit Mercy
(UDM),
From 1998-2000 served as a Coordinator-Department Chair for the CIS Program and transferred
MIT graduate program- Product Development for the 21 Century to a joint (Engineering and
MBA) graduate program for Ford Motor Company

1994-1999
Adjunct Professor engaged at the graduate/doctoral program level:
University of Michigan Ann Arbor, Rackham Graduate School and School of Information
Eastern Michigan University, School of Business and
Oakland University, School of Engineering,

1990-1994
Assistant Professor of Computer Information Systems (CIS), UDM
Developed one of the first undergraduate program in Software Production and the very first
graduate program in Software Management (1992)

1983-1990
Assistant Professor, Computer Information Systems, Belgrade University,
 - served as the Coordinator for a Graduate CIS Program from 1985 to 1988

Graduate CURRICULA DEVELOPMENT

2010 Graduate Computer Sciences Program, GSU
2000 Graduate Software Engineering Program for Oakland University and VAST-C Consortium
1992 Graduate Program in CIS-Software Management, UDM

1983 Graduate IS Program, for University of Belgrade

Graduate COURSES TAUGHT:

Georgia Southern University (GSU): 2001-2012
Database Systems, Software Engineering, Data Warehousing, Information Storage Management, Systems Assurance

University of Detroit Mercy (UDM): 1991-2001
Database Design, Software Requirements, Software Architecture, Software SQA and Testing, Software Metrics and Models, Project Management, O-O Programming, Software Maintenance, IT/Software Standardization, Software Management, Software Process Improvement,
1. At the Oxford University UK, Summer School, over five years: International Standardization, International Issues in Software Development, Seminar on Standards and European Union (for MBA students), ISO 9000 Quality Management Systems, Software Engineering Standards, Software Process Standardization and ISO 12207
2. At the Monterey Institute of Technology Mexico, Summer School:
Standardization of Software Process Assessment

Oakland University (OU): 1996-1999
Database Systems, Software Engineering, Software Verification, Software Quality, Personal Software Process, Software Project Management, Software Systems Architecture.
University of Michigan Ann Arbor (U of M): 1999
Database Application Systems
Eastern Michigan University (EMU): 1995-1999
Database Design, O-O Analysis and Design, Advanced Data Structures,

Recent Ph. D. students

- In progress

- Defended

Dragoljub Krneta, University of Belgrade
Ivan Bojicic, University of Belgrade
Danijela Subotic, University of Rijeka Croatia

Michael Saboe, Naval Postgraduate School 2002
Marko Petrovic, University of Belgrade 2014

Recent M.Sci. students

- In progress

- Defended

Thomas Friel, Georgia Southern University
Joel Washington, Georgia Southern
Hiram Madero, Georgia Southern

Steven Benson, Georgia Southern, 2014
Michael Grecol, Georgia Southern, 2013
Chris Trickler, Georgia Southern, 2013
Curt Knowles, Georgia Southern, 2012
Segio Waldring, Georgia Southern, 2010

Publications

Books

1) D. Shoemaker, V. Jovanovic "Engineering A Better Software Organization: GOT-IT Workbook" Quest Publishing House, Ann Arbor 2002,
2) D. Shoemaker, V. Jovanovic "Engineering a Better Software Organization" Quest Publishing House, Ann Arbor, 1999, 3rd edition 2002 recognized among top 50 books in Software Process Engineering,
3) B. Lazarevic, V. Jovanovic, P. Dizdarevic, M. Vuckovic "Standardized Information Systems Design" Vols. I and II, Scientific Books Publishing, Belgrade, 1986, 1987, 1988, and 1989- this book was a recipient of the Industry Award for 1987- a recognition for the best professional monograph in Information Systems, Rijeka, Croatia;
4) V. Jovanovic "Systems Analysis" PFV Publishing, Belgrade 1979,
5) B. Lazarevic, V. Jovanovic "Automation of Production Systems" University of Belgrade Textbook Publishing, Belgrade, Yugoslavia 1977.

Articles published in refereed Journals

1) D. Krneta, V. Jovanovic, Z. Marjanovic, "Direct Physical Data Vault Design", ComSys V11, N2, 2014, (Web of Science listed journal)
2) V.Jovanovic, J. Harris, Data Model Transformations- Relational to Dimensional, Issues in IS, V15, N1, October 2014,
3) D. Subotic, V.Jovanovic, M. Poscic "Data Warehouse and Master Data Management Evolution- A Meta-Data Vault Approach, Issues in IS, V15, N2, October 2014,
4) C.Knowles, V.Jovanovic " Extensible Markup Language (XML) Schemas for Data Vault Models" Journal of Computer Information Systems, Summer 2013, pp 12-21 (Web of Science listed journal)
5) V. Jovanovic, M. Pavlic **"**Using Data Samples in Validating Data Models**"**, International Journal of Knowledge Engineering and Soft Data Paradigms, Vol3, N 3/4 Fall 2012, pp 356-378.
6) V.Jovanovic, I.Bojicic, C. Knowles, M.Pavlic "Persistent Staging Area Models for Data Warehouses" Issues in Information Systems V13, Issue 1(October 2012), pp 121-132
7) Harris, J., Jovanovic, V. Introductory Programming Course Using Games, Issues in IS, Fall 2010,
8) S. Mrdalj, V. Jovanovic, J. Scazzero. An Empirical Method for Measuring Effectiveness of an Object-Oriented Design Process, *Issues in IS, Vol X, N2,* 2009
9) Jovanovic, V., Stone, E. (2008). A Symbol Set for Diagramming Networks. Issues in IS, IX (Fall 2008),
10) Jovanovic, V., Cupic, L. (2008). Cicero Coloring Schema for Data Modeling. Issues in IS, IX (Fall 2008),
11) Jovanovic Vladan, Mrdalj Stevan, Gardiner Adrian, The Zachman Cube, Issues in Information Systems, 2006, Fall 2006, Vol. vii, No. 2, 257-262
12) S. Mrdalj, J. Scazzero, V. Jovanovic "Effectiveness of the User Interface Driven Systems Design Using UML" ComSyS Journal Volume 1, Number 2, 2004, (Web of Science listed journal)
13) V. Jovanovic, H. Reichgelt " Comparison of Programs in Computing" SIGITE Bulletin Volume 1, 2004,
14) V. Jovanovic, R. Chambers " Personal Software Maintenance Process" Issues in Information Systems Volume V, 2004,
15) S. Mrdalj, V. Jovanovic " Use of O-O in Systems Analysis Courses" Issues in Information Systems Volume V, 2004,
16) V. Jovanovic, H. Reicghelt, R. Chambers, …" Programming Principles" Issues in Information Systems Volume V, 2004,
17) V. Jovanovic, S. Mrdalj, "Design Description for Software Components", Issues in Information Systems Volume IV (2), 2003, pp. 178-184,

18) S. Mrdalj, V. Jovanovic, "Advancing the Systems Analysis and Design Curriculum", Issues in Information Systems Volume IV (2), 2003, pp.611-617,

19) S. Mrdalj, V. Jovanovic, "User Interface Driven System Design", Issues in Information Systems, Vol. 3, 2002, pp.441-447,

20) S. Mrdalj, V. Jovanovic, "Diagramming Techniques for Expressing Requirements", IABD Business Research Yearbook ,Volume 5 2002,

21) H. Edwards, B. Thompson, V. Jovanovic, P. Lizel, J. McDermid, N. Wiliams "Achieving Software Engineering Profession" Journal of Education and Information Technology, V6, N4, 2001, pp. 267-293,

22) V. Jovanovic, K. Shockley "Safety-Critical Systems Knowledgebase" IABD Business Research Yearbook, Volume 4, 2001,

23) V. Jovanovic, D. Shoemaker, A. Stenkamp "Software Management Collaboration" IABD Business Research Yearbook Volume 4, 2001,

24) V. Jovanovic "Focus on Software Standards in CIS Education" IABD Business Research Yearbook Volume 2, 1999,

25) D. Shoemaker, V. Jovanovic "Formulating a Personal Software Process: The Software Factory Apprenticeship" IBS Computing, V8, N3, Winter 1997, pp. 44-48,

26) D. Shoemaker, V. Jovanovic "Enhancing Technical Student Proficiency in Global Competition" Journal of CIS, V37, Fall 1997, pp. 100-103, (Web of Science listed journal)

27) V. Jovanovic, D. Shoemaker " ISO 9001 standard and software quality improvement" Journal of Benchmarking for Quality Management and Technology, MCB University Press UK, V4, N2, 1997, pp. 148-159,

28) D. Shoemaker, V. Jovanovic " ISO 9000: A Report on the State of the American Software Industry" Journal of CIS, V36, N3, Spring 1996, (Web of Science listed journal)

29) S. Mrdalj, B. Vujovic, V. Jovanovic, "SQL Matrix Processing- Adding Dimension to Ad Hoc Analysis" Database Programming & Design, Vol.9, No.8, August 1996, pp.26-35, [lead article in the issue]

30) D. Shoemaker, V. Jovanovic " ISO 9000: A Report on the State of the American Software Industry" Journal of CIS, V36, N3, Spring 1996, pp95-98, (Web of Science listed journal)

31) D. Shoemaker, V. Jovanovic "Educating Software Executives: a Doctorate in Software Management" ACM Software Engineering Notes, V 21, N4,1996, pp.45-46,

32) D. Shoemaker, G. Ulferts, V. Jovanovic "In Search of Excellence or Adequacy" Multinational Business Review, V 3, N 2, 1995, pp. 100-106,

33) D. Shoemaker, V. Jovanovic "The Case for Software Management" ECIS Journal on Information Systems Education, V6, N4, Winter 1995, pp. 202-205,

34) V. Jovanovic, S. Mrdalj "Structured Specification Technique for Hypermedia Systems", Communication of the ACM, Vol.36, No.11, November 1993. pp. 18-20, (Web of Science listed journal)

35) S. Mrdalj, V. Jovanovic, "Structured Object-Oriented System Decomposition", Informatica: A Journal of Computing and Informatics, Vol.15, No.1, February 1991, pp. 22-26,

36) M. Obradovic, V. Jovanovic, B. Lazarevic "Automation of Information System Planning" EDP Practice Vol. XXII, April 1988, pp. 64-81,

37) R. Drakulic, M. Jovanovic, V. Jovanovic "Personal Information Subsystems at the University of Belgrade" Journal of Productivity, Belgrade 1987, pp. 186-188,

38) V. Jovanovic "Decision Tables" EDP Practice, Vol. XX, March 1986, pp. 46-51,

39) V. Jovanovic "Program Design Using Warnier's Method" EDP Practice Vol. XVIII, August 1984, pp. 42-50,

40) B. Lazarevic V. Jovanovic, "Graduate Programs in Informatics" EDP Practice, Vol. XVII, February 1983, pp. 34-40,

41) B. Lazarevic, V. Jovanovic "An Approach to Information Systems Design" EDP Practice, Vol. XV, May 1981, pp. 67-72.

Articles published in refereed proceedings

1. Collins G., Hogan M., Jovanovic V., Shibley M., Williams C. "Data Vault and High Quality Data Modeling Principles, SAIS 2014 Macon GA, March 22, 2014,
2. Jovanovic, V. "CS 2013 Curriculum- An Example" Proceedings of the 36th MIPRO (an IEEE sponsored) Conference, Opatija, Croatia, May 2013,
3. Mestrovic, A. Jakupovic, Pavlic M., Jovanovic, V. "A Novel Knowledge Modeling Approach" Proceedings of Intelligent Information Systems Conference, Opatija, Croatia, May 2013,
4. Jovanovic V., Benson S. "Aggregate Data Modeling Style" Proceedings of the SAIS Conference, Savannah Georgia, March 2013, March 8-9,
5. Pavlic, D., Pavlic M.,.Jovanovic V. "Future of Internet Technologies" Proceedings of the 35th MIPRO (an IEEE sponsored) Conference, Opatija Croatia, May 2012
6. Jovanovic V., I. Bojicic "Conceptual Data Vault Model" Proceedings of the SAIS Conference, March 2012, Atlanta USA, pp. 131-136
7. Jovanovic V., Z.Marjanovic "Data Based System Evaluation Framework" Proceedings of the SymOrg 2012 Conference, June 2012, Zlatibor, Serbia
8. Jovanovic V. Pavlic, M., *Taxonomy of Data Modeling Patterns*, MIPRO XXVI , Opatia, Croatia, May 2011,
9. Ratklif D., Jovanovic V., Pavlic M. *Validation without Normalization,* MIPRO XXVI, Opatia Croatia, May 2011,
10. Jovanovic, V., Mirzoev, T. *Teaching Storage Infrastructure Management and Security*. INFOSEC CD, Kennesaw GA, September 2010,
11. Jovanovic,V., et all *Engaging Students in Information Storage Management Courses*, ACM SIGITE, Middleton MI, September 2010,
12. Jovanovic, V., Mirzoev, T. Z. (2008). *Teaching Network Storage Technology*. ACM SIGITE Conference, Cincinnati OH 2008,
13. Jovanovic, V. (2008). *Teaching Data Model Validation*. ACM SIGITE Conference, Cincinnati OH 2008.
14. Jovanovic, V. (2008). *Systems Assurance Standards and Processes*. INFOSEC CD 2008, Kennesaw GA, September 2008,
15. Jovanovic, V., "Visual Language SANDS for Security Analysis", Microsoft Academic Days on Databases, OS and Security Nassau Bahamas, Peer-reviewed by Microsoft Research, November 3, 2007, DVD published and distributed in 2008,
16. Jovanovic Vladan, L. Cupic, A. Gardiner, "Taxonomy of Data Modeling Techniques": Southern AIS Conference, Jacksonville FL, March 2007,
17. Greca, Ardian, Jovanovic Vladan, Jovanovic Stevan, A Novel Communication Protocol for Interplanetary Satellite Network, AIAA SATCOM San Diego CA, June 2006., AIAA SATCOM, Pp. electronic, San Diego, AIAA, June 2006,
18. V. Jovanovic "Use of Forms in Supporting Student projects" ASEE/IEEE Frontiers in Education FIE Conference, Savannah GA, October 2004,
19. A. Gardener, V. Jovanovic , H. Reicghelt, "Second thoughts about a **career** in In" Proc. SIGITE 2004, Pp. 194-200. Salt Lake City UT, October 2004,
20. D. Shoemaker, V. Jovanovic, A. Drommi "A Case for The Study of Software Management Within A Broad Information Technology Curriculum" ACM SIGITE CITC4, Lafayette IN, October, 2003,
21. L. Jovanovic, A. Greca, V. Jovanovic, "Case Study- XP and System Tests" Proceedings of the 39th Annual Meeting of the SE Informs, Myrtle Beach NC, October, 2003,
22. A. Greca, V. Jovanovic, J. Harris "Enhancing Learning Success in the Introductory Programming Course" 33rd ASEE/IEEE Frontiers in Education Conference 2003, Boulder, CO, October, 2003,
23. H. Reichgelt, V. Jovanovic "Software Management as an Information Technology Knowledge Area", ACM SIGITE CITC4, Lafayette, IN, October 2003,
24. V. Jovanovic, S. Mrdalj and R. Hilliard, "Requirements for a New Generation of Software Engineering Standards", Proceedings of the IS OneWorld'03, Las Vegas, NV, April, 2003,

25. D. Shoemaker, A. Drommi, V. Jovanovic "A Prototype Curriculum for the Study of Software Engineering Management", Proceedings of the ISOneWorld'03, Las Vegas, NV, April, 2003,
26. V. Jovanovic, K. Modesitt, P. McNeil, D. Shoemaker, D. Matlen "Lessons Learned from Software Engineering and related Master Programs" 15th IEEE SEE&T Conference, Cincinnati, OH, February 2002,
27. D. Shoemaker, A. Drommi, V. Jovanovic, W. Norfleet "How to Build Practical Quantitative Management Capability Form an International Standard" 2nd Hawaii Conference on Business, Honolulu HW, June 2002,
28. B. Price, V. Jovanovic, E. Lawson, H. Reichgelt "Accrediting Baccalaureate Programs in Information Technology" Proceedings of the 38th Annual Meeting of the SE Informs, Myrtle Beach, NC, October, 2002,
29. V. Jovanovic, A. Greca, T. Murphey " Improving Intro Programming Experiences with XP" 32nd ASEE/IEEE Frontiers in Education Conference, Boston, MA, November, 2002,
30. J. Ingalsbe, D. Shoemaker, V. Jovanovic "A Metamodel of the Capability Maturity Model for Software" AIS Conference Boston, MA, August 2001,
31. V. Jovanovic, D. Shoemaker, A. Drommi "Patterns of Organizational Design in Software Development" Hawaii Conference on Business, Honolulu HW, June 2001,
32. D. Shoemaker, V. Jovanovic, A. Drommi "Navigating the Leading Edge A Prototype Curriculum for the Study of Software Systems Management" International Conference of Jesuit Schools Detroit, MI, June 2001,
33. V. Jovanovic, D. Shoemaker "Standardizing Software Manufacture- The Current State of the Art" International Conference of Jesuit Schools, Detroit, MI, June 2001,
34. V. Jovanovic, D. Shoemaker "Independent Accreditation for Software Engineering" 14th IEEE CSEE&T Conference, Charlotte, NC, February 2001,
35. D. Shoemaker, V. Jovanovic, M. Whithey "Estimating Return on Investment for Software Process Improvement Projects" DSI Conference, San Francisco, CA, November 2001,
36. E. Gundry, D. Shoemaker, V. Jovanovic "Requirement Type Estimation, A Real-World Alternative to Function Points" DSI Conference, San Francisco CA, November 2001,
37. V. Jovanovic, B. Sherlund "Survey of Software Engineering Standards in SE Education" IEEE Software Engineering Standards Symposia, Curritiba, Brazil, June 1999,
38. V. Jovanovic, L. Steenkamp and S. Mrdalj, "Teaching Object Oriented Software Design", Business Research Yearbook (Proceedings of the IABD'98), San Francisco, April, 1998,
39. D. Shoemaker, V. Jovanovic, A. Drommi "Software Configuration Management an Econometric Model" Business Research Yearbook (Proceedings of the IABD'98), San Francisco, CA, April, 1998,
40. L. Andres, V. Jovanovic, B. Sherlund "Software Standards in SE Education" International Software Engineering Workshop, Corsica, France, May, 1998,
41. V. Jovanovic "Software Process Standards: Meaningful Conformance Determination" SE Standards Forum, Montreal, Canada, October, 1998,
42. V. Jovanovic, D. Olateju "Software Engineering Programs- Is there a Common Core" IBSCA Symposium, North Dakota, July 1997,
43. D. Shoemaker, V. Jovanovic "A Proposal for a New Doctoral Study in Software Management" DSI National Conference, Boston MA, October 1995,
44. V. Jovanovic "Role of Standardization in the Global Environment: The Case of ISO 9000" International Academy of Business Disciplines (IABD) 1995 European Conference, Sheffield UK, August 1995,
45. V. Jovanovic, B. Hajhamad "Searching for a Body of Knowledge in Databases" IABD Conference Washington DC, April 1996,
46. D. Shoemaker, V. Jovanovic "Of Productivity, Entropy and the Silver Bullet: The Case for Software Change Process" IBSCA Conference, Kalamazoo, MI, July 1995,
47. D. Shoemaker, V. Jovanovic "A Software Factory Based Apprenticing Program" EDSIG Conference, Denver, CO, June 1995,

48. V. Jovanovic "Software Systems Quality Assurance and Testing: Template Syllabus" Software Education Workshop at the IEEE Software Education and Training Conference, Seattle WA, April 1995,

49. V. Jovanovic, D. Shoemaker "US Software Industry and ISO 9001- Follow up Study" IABD Conference, Los Angeles, CA, April 1995,

50. V. Jovanovic, D. Shoemaker "Business Software Improvement Recommendations and ISO 9000 Standards" IACIS Conference Washington D.C. October 1994,

51. V. Jovanovic "Software Standards Harmonization" IEEE Standards Forum, Denver, CO, September 1994,

52. V. Jovanovic, S. Mrdalj "Role of Data Integration in Business Process Reengineering", Proc. of the IBSCA '94 Conference, Baltimore, MD, July, 1994,

53. V. Jovanovic "Software Standards Database" IABD Conference, Pittsburgh PA, 1994,

54. D. Shoemaker, V. Jovanovic, M. Whitey "Fitting the Tool to the User: Enhancing Student Proficiency in Global Competition" American Society for Competitiveness, Boston MA, October 1994,

55. D. Shoemaker, V. Jovanovic "A Modest Proposal Concerning the Study of Software Management" DSI National Meeting, Honolulu HW, November 1994,

56. V. Jovanovic, S. Mrdalj "Generalized Data Model for Business Intelligence Information Systems", Proc. of the IBSCA'93 Conference, Denver, Colorado, July, 1993,

57. V. Jovanovic, D. Shoemaker "Assessing Compliance with ISO 9001 for the Production of Software" Pacific NW Software Quality Conference, Portland, OR, May, 1993,

58. V. Jovanovic, L. Elive "Software Quality Assurance and Outsourcing" IAM Conference, Atlanta GA, August 1993,

59. D. Shoemaker, V. Jovanovic "Management Context for Change Management" Midwest DS Conference, Lansing MI, May, 1993,

60. V. Jovanovic, L. Elive, D. Shoemaker "Software Management Programs at the University" Midwest Decision Sciences Conference, Lansing MI, May 1993,

61. V. Jovanovic "Outsourcing in the Information System Business" IABD Conference, Washington D.C. , April 1992,

62. V. Jovanovic, S. Mrdalj "Design of a Form's Structure through Data Structure Derivation", Proc. of the IAMM'91 Conference, Detroit, MI, April, 1991.

63. V. Jovanovic, S. Mrdalj, "Three-Layered Approach to the Analysis of Forms and Transactions" Proc. of the IAMM'90 Conference, Dallas, TX, March, 1990,

64. V. Jovanovic, P. Bataveljic, S. Ilic "Standardization in Information Systems" Proceedings of the XI International Conference Computer at University, Dubrovnik, Croatia, May 1989,

65. M. Pavlic, V.Jovanovic "Project Proposal as Specification" 6th regional conference on Information System Development, Opatia, Croatia, May 1989,

66. V. Jovanovic, B. Lazarevic, Z. Marjanovic "Development of the Integrated Information System for Chambers of Commerce and Industry in Yugoslavia" Symposia Organizational Sciences and Change, Porec, Slovenia, June 1989,

67. V. Jovanovic, O. Djuric "Graphical Interface for the CASE Tool SMPIS" 6th regional conference on Information System Development, Opatia, Croatia, May 1989,

68. V. Jovanovic, S. Ilic "CASE Tools- Survey" Invited paper at the 5th regional conference on Information System Development, Opatia, Croatia, May 1988,

69. V. Jovanovic, B. Lazarevic "New Information Systems Curricula at the University of Belgrade" Proceedings of the X International Conference Computer at University, Dubrovnik, Croatia, May 1988,

70. V. Jovanovic, R. Drakulic "Personal Information System" Second National Conference on Information Systems and Development, Belgrade, October 1987,

71. V. Jovanovic "Development of CAD Packages for the Development of Software" First Yugoslavian Conference on Software, Belgrade, May, 1987,

72. V. Jovanovic, P. Bataveljic "Standardized Methodology of Information System Design" XII Symposium on Informatics, Sarajevo, BH, April 1985,

73. P. Dizdarevic, V. Jovanovic, B. Lazarevic, M. Maletic, S. Mrdalj, "Data Base Design Using PSL/PSA" ISDOS PRM Europe, Pisa Italy, 1985,
74. V. Jovanovic "Structured Design of Software Using Decision Tables" Proceeding of the XXVI Conference ETAN, Subotica, Yugoslavia, June 1982,
75. S. Mrdalj, V. Jovanovic, B. Lazarevic "Database Design for Total DBMS" Proc. Of the IV Symposium on Informatics, Sarajevo, BH, March 1982,
76. V. Jovanovic, S. Bingulac, B. Lazarevic "Computer Aided Design of Spatial Information Systems" Symposia on Spatial IS, Banja Luka, BH, May 1982,
77. V. Jovanovic, B. Lazarevic "Computer Aided Design of Database Oriented Information Systems" ISDOS PRM Europe, Utrecht, Holland, June 1982,
78. B. Lazarevic, S. Bingulac, V. Jovanovic, M. Djorovic "Information System Design Using PSL/PSA" Proceedings of the 4th International Conference Computer at University, Dubrovnik, Croatia, May 1981,
79. V. Jovanovic, A. Aleksic "Simulation Models and Decision Tables" 5th SYMOPIS Herceg Novi, Montenegro, October 1980,
80. V. Jovanovic "APIS an Approach to Automation of IS Design" Proceeding of VII Yugoslavian Conference on IS, Belgrade, May 1979,
81. V. Jovanovic, B. Skulic "Situational Management for the Very Large Systems- Usage and Perspectives" SYMOPIS Herceg Novi, Montenegro, 1975 (best undergraduate student paper).

Also, over 100 other presentations, invited talks, panels, and publications including over 30 editorially reviewed reviews published in the ACM Computing Reviews.

Impact of some papers

1. Paper,"The Zachman Cube" listed in the Wikipedia's article on Zachman Framework as the primary source of a new concept extending the Zachman's classic framework (over 150 downloads from the AIS database since 2006).
2. Paper "SQL Matrix Processing" extensively quoted and an example reprinted in: Joe Celko, <u>SQL for Smarties: Advanced SQL Programming</u>, (in every edition incl. 4th) Morgan Kaufman, 2011
3. Paper " ISO 9001 standard and software quality improvement" has 17 international citations since 1998 according to Google citations and over 1900 downloads.
4. Paper "Structured Specification Technique for Hypermedia Systems" extensively quoted and an example reprinted in the textbook: Philip Laplante, <u>Real-Time Systems Design and Analysis: An Engineer's Handbook</u>, (2nd ed.) John Wiley-IEEE Press, 1997.

List of articles published in journals listed on Thompson-Reuter's Web of Science:

1. D. Krneta, V. Jovanovic, Z. Marjanovic, "Direct Physical Data Vault Design", **ComSys** Journal V11, N2, 2014, (Web of Science listed journal)
2. C. Knowles, V. Jovanovic "Extensible Markup Language (XML) Schemas for Data Vault Models" **Journal of CIS**, V53, N4, 2013,
3. S. Mrdalj, J. Scazzero, V. Jovanovic "Effectiveness of the User Interface Driven Systems Design Using UML" **ComSyS** Journal V1, N2, 2004,
4. D. Shoemaker, V. Jovanovic "Enhancing Technical Student Proficiency in Global Competition" **Journal of CIS**, V37, Fall 1997,

5. D. Shoemaker, V. Jovanovic " ISO 9000: A Report on the State of the American Software Industry" **Journal of CIS**, V36, N3, Spring 1996,
6. V. Jovanovic, S. Mrdalj "Structured Specification Technique for Hypermedia Systems", **Communication of the ACM**, Vol.36, No.11, November 1993.

Supervised student research (published within last five years)
1. D. Hammes, H.Madero, M. Henderson "Comparison of NoSQL and SQL Databases in the Cloud" Proceedings of the SAIS Conference 2014, March 21-22, Macon Georgia,
2. Collins G., Hogan M., Jovanovic V., Shibley M., Williams C. "Data Vault and High Quality Data Modeling Principles, SAIS 2014 Macon GA, March 22, 2014,
3. Jovanovic V., Benson S. "Aggregate Data Modeling Style" Proceedings of the SAIS Conference, Savannah Georgia, March 2013, March 8-9,
4. R. Thompson, T.C. Friel "The Sustainability of Cloud Storage" Proceedings of the SAIS Conference 2013, March 8-9, Savannah Georgia, (student paper award)
5. T. Loser, C. Nance, R. Iype, G. Harmon "NoSQL vs. RDBMS- Why There is Room for Both" Proceedings of the SAIS Conference 2013, March 8-9, Savannah Georgia,
6. J. Miller "Graph database applications and concepts with Neo4J" Proceedings of the SAIS Conference 2013, March 8-9, Savannah Georgia,
7. C. Trickler "An Overview of Self -Monitoring Systems" Proceedings of the SAIS Conference 2013, March 8-9, Savannah Georgia,
8. G. McClain, W. Jackson *"Processing and Using XML Documents with the Sphinx Method"* SAIS Conference 2013, March 8-9, Savannah Georgia, (accepted paper)
9. C. Porter, J. Main" A Survey of NoSQL Databases: The Solution to Big Data?" SAIS Conference 2013, March 8-9, Savannah Georgia, (accepted paper)
10. C. Knowles "6NF Conceptual Data Models in Data Warehousing 2.0" Proceedings of the SAIS Conference 2012, Atlanta (best student paper award)", pp 160-165.
11. M. Grecol "Standard Data Model for Customs EDI Filings" SAIS Conference 2012, Atlanta, pp 86-91
12. Ratklif D., Jovanovic V., Pavlic M. *Validation without Normalization,* MIPRO XXVI, Opatia Croatia, May 2011.

Research Development (selected externally sponsored and/or internationally recognized work)

2010- Present
Model Research Program- DW21. The DW 21 program goals are development of the next generation of Data Warehousing Design technology and methodology using an informal international collaboration involving a number of master/doctoral students and faculty from Universities in three countries. In addition DW21 is a proof of concept research program model in establishing a scale-free, low budget research programs i.e. self-organized applied research (SOUR) a meta-program intended for research programs in design sciences.

1997-2002
Research Program VAST (Vehicular Advanced Software Technology) (funded by US Army TACOM Next Gen Software Engineering Laboratory, Warren MI); $250.000– contributions:
- software testing and software process improvement and standardization effort as well as coordination of software research on behalf of Next Gen Software Engineering Laboratory (liaison with DARPA researchers)
- FAST CMM training and VAST-C a consortium for supporting software technology capability building in south east Michigan.

1992-2009
Software Standardization Program- an individual research program involving extensive volunteer participation on development and management of IEEE Software (now Systems and Software) Engineering Standards. This work culminated in co-authoring IEEE 1471 Recommended Practice for Architectural Descriptions of Software Intensive Systems (recently revised and adopted as ISO/IEC Standard 42010-2011) and leading the development of the IEEE 1016 Standard for Software Design Descriptions, published in 2009.

1985-1990
AIS Program- Automation of Data Base Design and standardization of Information Systems Design Methodology, including development of a CASE tool Artist; R&D component over $ 200.000, part of industrial collaboration including full scale design and implementations funded in excess of $2.000.000.

PROFESSIONAL SOCIETY ACTIVITY

- Academy of Sciences, New York, 1995- present
- Association for Computing Machinery (ACM), 1989- present
- Institute of Electrical and Electronic Engineers (IEEE), member of the Technical Committee for Software Engineering Standardization, and IEEE Computer Society, 1990-present
- ACM SIGITE (formerly IT Society)- IT Curriculum and Standards Committee 2002-2010
- ABET CAC Program Evaluator 2002-present

OFFICIAL FUNCTIONS IN PROFESSIONAL ASSOCIATIONS

- Member of the IEEE Systems and Software Engineering Standards Management Board 2005-2008,
- Chair of the IEEE TC SE S2E Standardization working groups 1992-2009

- Editor of Software Design Knowledge Area, IEEE Software Engineering Portal, 2004-2010,
- Associate Editor, CS-IS International Journal ComSyS, 2003-present