

SURENDRA SARNIKAR

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EDUCATION

PhD in Management Information Systems
University of Arizona, Tucson, AZ

May 2007

MS in Management Information Systems
University of Arizona, Tucson, AZ

December 2002

BE in Civil Engineering
Osmania University, Hyderabad, India

May 1999

RESEARCH INTERESTS

- Knowledge Management and Knowledge Management Systems, Workflows
- Healthcare Information Systems, Health Information Exchange and Interoperability, Usability of Health Information Systems
- Information Retrieval, Text Mining, Data Mining

PUBLICATIONS**Refereed Journal Articles**

- Wills, M., Sarnikar, S., El-Gayar, O.F., and Deokar, A. “Clinical Knowledge Management Systems: Literature Review and Research Issues for Information Systems”, *Communications of the Association for Information Systems (Forthcoming)*
- Sarnikar, S and Zhao, J.L. “Pattern-Based Knowledge Workflow Automation: Concepts and Issues” *Information Systems and E-Business Management*, 6(4), pp 385-402 2008.
- Sarnikar, S. and Gupta, A “A Context-Specific Mediating Schema Approach for Information Exchange between Heterogeneous Hospital Systems” *International Journal of Healthcare Technology and Management*, 8 (3/4), 2007.
- Gupta, A., Woosley, R., Crk, I. and Sarnikar, S. “ An Information Technology Architecture for Drug Effectiveness Reporting and Post-Marketing Surveillance”, *International Journal of Healthcare Information Systems and Informatics*, 2(3), 2007.
- Kalyanpur, A., Latif, F., Saini, S. and Sarnikar, S. “Inter-organizational E-Commerce in Healthcare Services: The Case of Global Teleradiology”, *Journal of E-Commerce in Organizations*, 5(2), 2007.

Refereed Conference Articles

- El-Gayar, O.F., Sarnikar, S. and Wills, M. “A Cyberinfrastructure Framework for Comparative Effectiveness Research in Healthcare” *Proceedings of the 43rd Annual*

Hawaii International Conference on System Sciences, Kauai, HI, January 5-8, 2010.
(Received Best Paper Award)

- Sarnikar, S. and Deokar, A. "Knowledge Management Systems for Knowledge Intensive Processes: Design Process and an Illustrative Example" *Proceedings of the 43rd Annual Hawaii International Conference on System Sciences*, Kauai, HI, January 5-8, 2010.
- Sarnikar, S. and Deokar, A. "Towards A Design Theory for Process-based Knowledge Management Systems" *Proceedings of the International Conference on Information Systems*, Phoenix, Arizona, Dec 15-18, 2009.
- Aljafari, R. and Sarnikar, S. "A Framework for Assessing Knowledge Sharing Risks in Inter-Organizational Networks", *Proceedings of the AIS Americas Conference on Information Systems (AMCIS 2009)*, San Francisco, August 6-9, 2009.
- Weist, P., El-Gayar, O.F., and Sarnikar, S. "A Knowledge-base Architecture for Model Translation" *Proceedings of the 39th Annual Meeting of the Decision Sciences Institute (DSI)*, Baltimore, Maryland November 22-25, 2008.
- Hu, D., Sarnikar, S. and Zhao, J.L. "Towards a Process-driven Intelligent Forum System for Efficient Organizational Knowledge Transfer" *Proceedings of the International Conference on Information Systems*, Montreal, Canada, Dec 9-12, 2007
- Sarnikar, S. and Zhao, J.L. "On Statechart based Modeling of Knowledge Workflows" *Proceedings of the 2007 Workshop on E-Business*, Montreal, Canada, December 9 2007
- Sarnikar, S and Zhao, J. L. "Automating Knowledge Flows by Integrating Workflow and Knowledge Discovery Techniques", *Proceedings of the 2007 Winter Conference on Business Intelligence*, Salt Lake City, UT, February 22-24, 2007.
- Sarnikar, S., Zhang, Z. and Zhao, J. L. "Predicting Query Performance in Domain-Specific Corpora", *Proceedings of the 40th Annual Hawaii International Conference on System Sciences*, Waikoloa, HI, January 3-6, 2007.
- Sarnikar, S. and Zhao J.L. "A Pattern-based Approach to Automating e-Business Knowledge Flows", *Proceedings of the Fifth Workshop on e-Business (WeB'06)*, Milwaukee, WI, December 9th, 2006.
- Sarnikar, S. and Zhao, J.L. "Task-Centric Document Recommendation via Context-Specific Terms", *Proceedings of the 2006 AAAI Workshop on Modeling and Retrieval of Context*, Boston, MA, July 16-17, 2006.
- Sarnikar, S. and Zhao, J. L. "A Bayesian Framework for Just-in-Time Knowledge Delivery", *Proceedings of the Fourth Workshop on e-Business (WeB'05)*, Las Vegas, NV, December 10, 2005.
- Sarnikar, S., Zhao, J. L. and Gupta, A. "Medical Information Filtering Using Content-based and Rule-based Profiles", *Proceedings of the Americas Conference on Information Systems (AMCIS'05)* Omaha, NE, August 11-14, 2005.
- Sarnikar, S., Zhao, J. L. and Kumar, A. (2004) "Organizational Knowledge Distribution: An Experimental Evaluation", *Proceedings of the Americas Conference on Information Systems (AMCIS'04)* New York, NY, August 5 - 8, 2004. (This paper was nominated for best paper award).

Book Chapters

- Sarnikar, S. and Zhao, J.L "Extending Workflows for Knowledge Flow Automation" in Business Process Management: Concepts, Technologies and Applications (Eds.) Shankararaman, V. et al., M. E. Sharpe, Inc. (Forthcoming).

TEACHING INTERESTS

- Knowledge Management and Decision Support, Design Research, Healthcare Information Systems, and Data Mining

TEACHING EXPERIENCE

College of Business and Information Systems, Dakota State University, Madison, SD

- INFS 734: Client Server Technologies (Spring 2007)
- INFS 834: Knowledge Management (Spring Semesters)
- INFS 868: Healthcare Informatics Research (Spring Semesters)
- INFS 892: Information Systems and Knowledge Work (Summer 2008)
- INFS 805: Design Research (Fall Semesters)
- INFS 830: Decision Support Systems (Fall Semesters)
- INFS 890: Doctoral Research Seminar (Fall Semesters)

Eller College of Management, University of Arizona, Tucson, AZ

- MIS 304: Using and Managing Information Systems (Winter 2005)
- MIS 111: Introduction to Computing (Winter 2004)
- MIS 528: Enterprise Workflow Systems (Teaching Associate, Fall 2006)
- MIS 507A: Information Systems Architecture(Teaching Associate, Spring 2005)
- MIS 531A: Data Structures and Algorithms(Teaching Associate, Fall 2003)

PROFESSIONAL EXPERIENCE

Assistant Professor of Information Systems 2007-Present
Dakota State University, Madison, SD

- Teach graduate courses in healthcare information systems, knowledge management, decision support, and research methodologies
- Advise and supervise doctoral students in research and dissertation work
- Conduct research and scholarly activities in information systems

Research Associate, 2005- 2006
Eller College of Management, 10Blade Technologies Project

- Consultant for information exchange in heterogeneous technology environments
- Analyzed web service enabled business model for data exchange between disparate hospital systems

Research Associate, Summer 2005
Critical Path Institute, Tucson, AZ

- Consultant for Community Pharmacy Safety Network Project. Explored technical solutions and analyzed organizational issues, stakeholder interests, data privacy and compliance issues in implementing a data exchange mechanism between community pharmacies, government and quality improvement organizations
- Lead a team of graduate students in developing a prototype web-based workflow and decision support system

Graduate Associate & Web coordinator 2004-2005
 Department of MIS, University of Arizona, Tucson, AZ

- Designed and developed conference website and event registration application
- Teaching associate for graduate course

Research Assistant 2000-2004
 Steward Observatory, University of Arizona, Tucson, AZ

- Project Manager for a Learning Management System for Astronomy Department
- Lead a team of graduate and undergraduate students in design and development of a web based course management system and learning support system for undergraduate science education

Programmer 1999-2000
 Department of Civil Engineering, University of Arizona, Tucson, AZ

- Developed engineering software for simulating ground water flow and soil behavior

SERVICE

- **Reviewer for Journals:** International Journal of Healthcare Technology Management, International Journal of Healthcare Information Systems and Informatics, Information Systems Frontiers, Journal of Management Information Systems, Decision Support Systems, European Journal of Information Systems, IEEE Transactions on Services computing, Journal of Information Systems and E-Business Management,
- **Reviewer for Conferences:** Workshop on Information Technologies and Systems (WITS), International Conference on Information Systems (ICIS), Business Process Management Conference (BPM), Americas Conference on Information Systems (AMCIS), SIGMIS CPR conference, Hawaii International Conference on System Sciences (HICSS)
- **Technical Workgroup Facilitator,** South Dakota E-Health Collaborative
- **Moderator,** Panel on Challenges and Opportunities in Health Information Technology, MWAIS 2009

RESEARCH GRANTS

- NASA SD-EPSCoR Travel Grant “Automated Techniques for Efficient Dissemination of Science and Engineering Knowledge” in collaboration with Amit Deokar and Omar El-Gayar, \$4500, 2007

- DSU Center of Excellence and Office of Graduate Studies, Faculty Research Grants, Total \$2000, 2007

PROFESSIONAL AFFILIATIONS

- Member, Healthcare Information Management Systems Society
- Member, Association for Information Systems
- Member, Association for Computing Machinery

HONORS AND AWARDS

- Received best paper award at HICSS 2010
- Nominated for a best paper award at AMCIS 2004
- Selected to participate in the Doctoral Consortium at AMCIS 2005
- Received a Graduate Scholarship for the best performance in the Ph.D. Core Exam, 2003
- Recipient of Graduate Scholarships in 2003-04 and 2004-05
- Sun Certified Programmer for Java 2 Platform