VIJAYAN SUGUMARAN

Department of Decision and Information Sciences
School of Business Administration
Oakland University
Rochester, MI 48309
(248) 370-4649
(sugumara AT oakland DOT edu)

EDUCATION

Ph.D.   Information Technology, Department of Information and Software Systems Engineering, School of Information Technology and Engineering, George Mason University, Fairfax, VA, Spring 1993.

M.S.   Mining Engineering, University of Alaska, Fairbanks, AK, September 1985.

B.Tech.   Mining Engineering, Indian School of Mines, Dhanbad, India, May 1983.

HONORS & AWARDS

- Oakland University Distinguished Professor, 2020
- Nominated for Michigan Association of State Universities Distinguished Professor of the Year Award, representing Oakland University
- Co-Director, Center for Data Science and Big Data Analytics, Oakland University
- Distinguished Professor of the Ministry of Public Security, People's Republic of China
- International Expert, Shanghai University SILC Business School, 2017-2020
- Editor-in-Chief, *International Journal of Intelligent Information Technologies (IJIIT)*
- Fulbright Scholar, Fulbright Specialist Program Grant, 2012
- Research Excellence Award, Oakland University, 2010
- Co-PI, Sogang Business School's World Class University Program (R31-20002) funded by Korea Research Foundation, 2010 – 2013
- AISWorld NET Challenge Award, 2007 – DSS Research Page
- Co-PI, Research Grants Council of Hong Kong, Project Number 9041217 (CityU 110207) Sep. 2007 – Aug. 2009
- Dean's Distinguished Research Professor, 2005-08.
- Outstanding Researcher, Founder's Day Recognition, 2002
- Oakland University Professional Development – Research Leave, 2004
- Oakland University Research Fellowship, 2000, 2003
- SBA Research Fellowship, Oakland University, 2001, 2004, 2006, 2007

- Best Paper Award, 4th Annual AIS Educator Conference, Copper Mountain, 2002, CO, USA.
- Nominated for Best Paper Award, Americas Conference on Information Systems, New York, NY, August 5 – 8, 2004.

WORK EXPERIENCE

Chair, Department of Decision and Information Sciences, School of Business Administration, Oakland University, Rochester, Michigan (Fall 2014- Present)

Distinguished Professor, Department of Decision and Information Sciences, School of Business Administration, Oakland University, Rochester, Michigan (Winter 2020- Present)

WCU Visiting Professor, Department of Service Systems Management and Engineering, Sogang University, 1 Shinsoo-Dong, Mapo-Gu, Seoul 121-742, South Korea (2010- 2013)

Professor, Department of Decision and Information Sciences, School of Business Administration, Oakland University, Rochester, Michigan (Fall 2007- Present)

Associate Professor, Department of Decision and Information Sciences, School of Business Administration, Oakland University, Rochester, Michigan (Fall 2002- Summer 2007)

Assistant Professor, Department of Decision and Information Sciences, School of Business Administration, Oakland University, Rochester, Michigan (Fall 1999- Summer 2002)

Assistant Professor, Department of Business Administration, Le Moyne College, Syracuse, NY. (1993-Spring 1999, *granted tenure and promotion during academic year 1998 – 1999)*

Database Analyst, Planning and Research Corporation, McLean, Virginia. (1992-1993)

Research Associate, Department of Information and Software Systems Engineering, George Mason University, Fairfax, VA. (1988-1993)

Instructor, Department of Decision Sciences and Management Information Systems, School of Business Administration, George Mason University, Fairfax, VA. (1988, 1989, 1992)

AREAS OF INTERESTS

- Business Intelligence, Big Data Analytics, Semantic Web, Ontologies, Web Services/SOA
- Management Information Systems, Web Technologies and E-Commerce Applications
- Intelligent Agent and Multi-agent Systems
    -- Big Data Management and Data Mining, Geographic Information Systems
    -- Organizational Process Modeling and Execution, Mass Customization
- Software Product Line, Component Based Development, and Software Reuse
- Knowledge-Based Systems and Intelligent Information Technologies

TEACHING ACTIVITIES

Courses taught at Oakland University

Graduate Courses
MIS514: Systems Analysis
MIS515: Systems Design
MIS604: Introduction to Databases and Data Warehouses
MIS606: Advanced Databases and Big Data Management
MIS620: Electronic Commerce
MIS622: Business Object Development
MIS624: Business Application Architecture
MIS6900: Deep Learning and Text Analytics

Undergraduate Courses
MIS300: Introduction to Management Information Systems
MIS304: Database Management
MIS315: Systems Analysis and Design
MIS420: Electronic Commerce
MIS422: Business Object Development
MIS424: Business Application Architecture
MIS426: Web Application Development

Courses taught at Le Moyne College

Graduate Courses
MIS703: Systems Analysis and Design
MIS701: Database Management Systems.
MIS501: Management Information Systems

Undergraduate Courses
MIS481: Java and Javascript Programming for Internet
MIS480: Database Management Systems.
MIS470: Object-Oriented Business Applications Using C++
MIS375: Systems Analysis and Design
MIS301: Introduction to Management Information Systems

Courses taught at George Mason University

Graduate Course
MIS610: Computer Systems for Management

Undergraduate Courses
MIS411:   Management Information Systems
DESC352: Methods and Models of Management Science
DESC301: Decision Models in Business and Operations Management
DESC200: Statistical Analysis for Decision Making I

RESEARCH ACTIVITIES

Research Grants (Competitive)

PI, SBA Summer Research Grant, Summer, 2021 ($10,000)
"Biomedical Named Entity Recognition (NER) for Chemical-Protein Interactions"

PI, SBA Summer Research Grant, Summer, 2020 ($10,000)
"Process model understanding by novices: Sometimes a diagram is only worth a hundred words"

Co-PI, Scheme for Promotion of Academic and Research Collaboration (SPARC), 2019 ($75,000), Ministry of Human Resource Development, India, 2019
"A Decision Support System for Structural Defects Diagnosis in Underground Transportation Tunnels using Semantic Technologies"

PI, SBA Summer Research Grant, Summer, 2019 ($10,000)
"A Hybrid Genetic Algorithm for Software Architecture Re-Modularization"

PI, SBA Summer Research Grant, Summer, 2018 ($10,000)
"Ontology and Multi-Agent based Decision Support System for Prefabricated Component Supply Chain"

PI, SBA Summer Research Grant, Summer, 2017 ($10,000)
"Using Domain Ontology for Service Replacement Tasks: An Empirical Evaluation"

Co-PI, Global Initiative on Academic Network (GIAN), 2017 ($9000), Ministry of Human Resource Development, India, 2017
"Big Data Analytics & Business Intelligence"

PI, SBA Summer Research Grant, Summer, 2016 ($10,000)
"A Multi-Agent System for Data Sharing and Data Privacy in Healthcare"

Co-PI, Competitive Research Grant, Research Grants Council of Hong Kong, Project Number 9042128 (CityU 11500114) Sep. 2014 – Aug. 2016 (HK$190,000), PI: Narasimha Bolloju, City University of Hong Kong.
"Collaborative Modeling and Analysis of Enterprise-wide Information Systems Integration Requirements with Semantic Search and Reusability Guidance"

PI, SBA Summer Research Grant, Summer, 2014 ($10,000)
"An Approach for Task Specific Ontology Selection on the Semantic Web"

Fulbright Specialist Program Grant, 2012 ($8,000)
"Factors impacting student performance and quality of technical education in developing countries"

PI, Sogang University Research Grant, 2011 ($10,000)
"Design of Adaptive Community Networks using Intelligent Information Technologies and Semantic Tools for Improving Interoperability in the Knowledge and Service Economy"

Co-PI, Sogang Business School's World Class University Program (R31-20002) funded by Korea Research Foundation, 2010 – 2013, (US$10 Million).
  "Service Systems Engineering for the Creation of New Growth Engine based on Knowledge Service"

Provost's Graduate Student Research Award, 2009 (US$2,000)
Supervisor for the graduate student project:
  "Flexible Process Modeling and Execution in the Healthcare Domain"

Co-PI, Competitive Research Grant, Research Grants Council of Hong Kong, Project Number 9041217 (CityU 110207) Sep. 2007 – Aug. 2009 (HK$559,800), PI: Narasimha Bolloju, City University of Hong Kong.
  "Using Collaboration Patterns and Use Case Descriptions to Assist Novice Systems Analysts in Quality Object Modeling"

PI, SBA Summer Research Grant, Summer, 2007 ($8,500)
  "Object Modeling using Collaboration Patterns and Use Case Descriptions"

PI, SBA Summer Research Grant, Summer, 2006 ($8,500)
  "Modeling Web Service Profiles for the Semantic Web: A UML Based Approach"

PI, SBA Summer Research Grant, Summer, 2004 ($7,000)
  "Supporting Database Designers in Entity-Relationship Modeling: An Ontology-Based Approach"

PI, Oakland University Summer Research Grant, Summer, 2003 ($8,500)
  "A Heuristic-based Approach for Query Augmentation in the Semantic Web"

Co-PI, Oakland University, Office of Enrollment Management, 2002 ($13,600)
  "Analysis of Enrollment and Student Data," (With Bhargava, M., and Rajagopalan, B.)

PI, SBA Summer Research Grant, Summer, 2001 ($8,000)
  "An Architecture-Centric Approach to Multi-Agent System Development and Application"

PI, Oakland University Summer Research Grant, Summer, 2000 ($7,500)
  "A Domain Model Based Approach to Reuse in Component Based Software Development"

Keynote Speeches

"Integrating Mixed Reality and Artificial Intelligence into Building Information Modeling: A Collaborative Tunnel Emergency Drill Management System," 2021 International Conference on Multi-modal Information Analytics (MMIA 2021), Inner Mongolia University, Huhehaote, China, April 23-24, 2021.

"Data Analytics and Privacy Issues for Wearable Technologies in Healthcare," International Conference on Cyber Security Intelligence and Analytics (CSIA2021), Shenyang, China, March 19-20, 2021.

"Data Management and Analytics for Wearable Technologies," International Virtual Conference on Wearable Technologies & Applications: Emerging Trends and Innovations (WeTA2020), Vellore Institute of Technology, Vellore, India, June 26 - 27 2020.

"Detecting the States of Emergency Events Using Web Resources," 24th International Conference on Applications of Natural Language to Information Systems (NLDB 2019), Salford, UK, June 26–28, 2019.

"The Role of Community Acceptance in Assessing Ontology Quality," International Conference of Applications and Techniques in Cyber Intelligence (ATCI 2019), Anhui University of Science and Technology, Huainan, China, June 22-24, 2019.

"Recent Trends, Developments and research focus in artificial Intelligence & Computer Vision," International Symposium on Artificial Intelligence & Computer Vision (AICV-2018), Anna University, Chennai, India, September 26-28, 2018.

"Development and Application of Automotive Safety Related Ontology through Text Analytics," International Conference on Data Analytics and Business Intelligence (ICDABI '18), Chennai, India, July 16 – 17, 2018.

"Repurposing Social Tagging Data for Extraction of Domain-level Concepts and Relationships," International Conference on Computational Methods & Software Engineering (CoMSE 2015), Chennai, India, December 28 – 30, 2015.

"Tamil Computing and Big Data," 14th Tamil Internet Conference, 2015, Singapore, 30th May – 1st June.

"21st Century Education and Design of E-Learning Systems," International Workshop on Teaching and Learning, Dec. 19, 2011, B. S. Abdur Rahman University, Chennai, India.

"Intelligent Information Technology and Mobile Advertisement," 2011 Fall Mobile Terminal Management and Advertisement Technology Forum, Nov. 17 – 18, 2011, Busan, South Korea.

Conference Workshops, Tutorials and Webinars

Sugumaran, V., Harroun, J. "Workshop: AI and Deep Learning using SAS Viya," Online Americas Conference on Information System (AMCIS 2020), August 12, 2020.
https://aisel.aisnet.org/amcis2020/select_recordings_from_conference/select_recordings_from_conference/8

Freeze, R., Sugumaran, V., Cazier, J., Iyer, L. "Workshop: Analytics in the Curriculum," Americas Conference on Information Systems (AMCIS 2020), August 11, 2020.

Sugumaran, V. "Role of Artificial Intelligence in Fighting Covid-19," International Webinar-Organized by Vinayaka Missions Research Foundation, Chennai, India, June 11, 2020.

Sugumaran, V. "Service Systems Analysis and Implementation," Tutorial, The Korean Operations Research and Management Science Society (KORMS) Fall Conference, October 28, 2011, Konkuk University, Seoul, Korea.

Sugumaran, V., Moroz, C., "Knowledge Management – Introduction, Architecture and Application," Tutorial, 4th Fall Conference on Managing Information Technologies, October 11 – 13, 2001, Oakland University, Rochester, MI.

Refereed Journal Publications

- Leukel, J., Sugumaran, V. "How Novices Understand Supply Chain Process Models: Experimental Study on Using Diagrams and Texts," *Journal of Enterprise Information Management* (forthcoming).

- Attili, V S P., Mathew, S., Sugumaran, V. "Information Privacy Assimilation in IT Organizations," *Information Systems Frontiers* (forthcoming).

- Leukel, J., Schehl, B., Sugumaran, V. "Digital inequality among older adults: Explaining differences in the breadth of Internet use," *Information, Communication and Society* (forthcoming).

- Wang, X., Chang, Y., Sugumaran, V., Luo, X., Wang, P., Zhang, H. "Implicit Emotion Relationship Mining Based on Emotion Recognition from Multimodal Data," *IEEE Multimedia* (forthcoming).

- Mu, L. F., Tang, X., Sugumaran, V., Sun, X., Xu, W. "Optimal Rebate Strategy for an Online Retailer with a Cashback Platform: Commission-driven or Marketing-based?" *Electronic Commerce Research* (forthcoming).

- Wang, X., Kou, L., Sugumaran, V., Lou, X., Zhang, H. "Inter-Sentiment Correlation Mining for Web Social Event," *IEEE Transactions on Cybernetics* (forthcoming).

- Jing, N., Wu, Z., Lyu, S., Sugumaran, V. "Information Credibility Evaluation in Online Professional Social Network Using Tree Augmented Naïve Bayes Classifier," *Electronic Commerce Research* (forthcoming).

- Yu, G., Mao, Z., Hu, M., Li, Z., Sugumaran, V. "BIM+ topology diagram-driven Multi-utility Tunnel emergency response," *Journal of Computing in Civil Engineering* (forthcoming).

- Masood, M. D. M., Manjula, D., Sugumaran, V. "Identification of New Disease Genes from Protein-Protein Interaction Network," *Journal of Ambient Intelligence and Humanized Computing* (forthcoming).

- Liu, Q., Mu, L. F., Sugumaran, V., Wang, C., Han, D. "Pair-wise ranking based preference learning for Points-of-interest Recommendation," *Knowledge-Based Systems*, Vol. 225, 2021, 107069.

- Widmer, T., Karaenke, P., Sugumaran, V. "Two-sided service markets: Effects of quality differentiation on market efficiency," *Managerial and Decision Economics*, 2021; 42:588–604.

- Du, J., Dong, P., Sugumaran, V., Castro-Lacouture, D. "Dynamic Production Scheduling for Prefabricated Components: A Genetic Algorithm and Multi-Agent System based Approach," *Expert Systems*, Vol. 38, No. 1, 2021, e12533.

- Yu, G., Wang, Y., Hu, M., Shi, L., Mao, Z., Sugumaran, V. "RIOMS: An Intelligent Operation and Maintenance of Urban Roads Using spatio-temporal Data in Smart Cities," *Future Generation Computer Systems*, 2021, 115: 583-609.

- Jing, N., Liu, Q., Sugumaran, V. "A Blockchain-Based Code Copyright Management System," *Information Processing and Management*, Vol. 58, No. 3, 2021, pp. 102518.

- Masood, M. D. M., Manjula, D., Sugumaran, V. "An Efficient Algorithm for Identifying (ℓ, d) Motif from Huge DNA Datasets," *Journal of Ambient Intelligence and Humanized Computing*, Vol. 12, No. 1, 2021, pp. 485-495.

- Veeramanikandan, M., Sankaranarayanan, S., Rodriques, J., Sugumaran, V., Kozlov, S. "Data Flow and Distributed Deep Neural Network Based Low Latency IoT-Edge Computation Model for Big Data Environment," *Engineering Applications of Artificial Intelligence*, 94: 103785 (2020).

- Sudhakaran, G., Manjula, D., Sugumaran, V. "Character Level and Word Level Embedding With Bidirectional LSTM - Dynamic Recurrent Neural Network for Biomedical Named Entity Recognition from Literature," *Journal of Biomedical Informatics*, 112: 103609 (2020).

- Xu, Z., Cheng, C., Sugumaran, V. "Big Data Analytics of Crime Prevention and Control Based on Image Processing upon Cloud Computing," Journal of Surveillance, Security and Safety, Vol. 1, No. 1, 2020, pp. 16-33.

- Du, J., Jing, H., Choo, K. K. R., Sugumaran, V., Castro-Lacouture, D. "An Ontology and Multi-Agent based Decision Support Framework for Prefabricated Component Supply Chain," *Information Systems Frontiers*, Vol. 22, No. 6, 2020, pp. 1467-1485.

- Mu, L. F., Sugumaran, V., Wang, F. "A Hybrid Genetic Algorithm for Software Architecture Re-Modularization," *Information Systems Frontiers*, Vol. 22, No. 5, 2020, pp. 1133-1161.

- Du, J., Jing, H., Castro-Lacouture, D., Sugumaran, V. "Multi-agent Simulation for Managing Design Changes in Prefabricated Construction Projects," *Engineering, Construction and Architectural Management*, Vol. 27 No. 1, 2019, pp. 270-295.

- Hu, M. Liu, Y., Sugumaran, V., Liu, B. "Automated Structural Defects Diagnosis Using Semantic Technologies in Underground Transportation Tunnels," *Automation in Construction*, Vol. 107, 2019, Article 102929.

- Schehl, B., Leukel, J., Sugumaran, V. "Understanding Differentiated Internet Use in Older Adults: A Study of Informational, Social, and Instrumental Online Activities," *Computers in Human Behavior*, Vol. 97, 2019, pp. 222-230.

- Kim, N., Lee, Y., Sugumaran, V., Park, S. "Value-Driven use Cases Triage for Embedded Systems: A Case Study of Cellular Phone" International Journal of Advanced Computer Science and Applications (IJACSA), Vol. 10, No. 5, 2019, pp. 723-728.

- Li, L., Sugumaran, V. "A Cognitive-based AES Model Towards Learning Written English," *Journal of Ambient Intelligence and Humanized Computing*, Vol. 10, No. 5, 2019, pp. 1811-1820.

- Arunarani, A. R., Manjula, D., Sugumaran, V. "Task scheduling techniques in cloud computing: A literature survey," *Future Generation Computer Systems*, Vol. 91, 2019, pp. 407-415.

- Leukel, J., Sugumaran, V. "How product representation influences the understanding of supply chain process models," *Enterprise Information Systems*, Vol. 12, No. 10, 2018, pp. 1285-1307.

- Beaulah, M. R. P., Manjula, D., Sugumaran, V. "Categorization of Images using Autoencoder Hashing and Training of Intra Bin Classifiers for Image Classification and Annotation," *Journal of Medical Systems*, Vol. 42, No. 7, 2018, pp. 132:1-132:15.

- McDaniel, M., Storey, V., Sugumaran, V. "Assessing the quality of domain ontologies: Metrics and an automated ranking system," *Data & Knowledge Engineering*, Vol. 115, 2018, pp. 32-47.

- Wang, X., Sugumaran, V., Zhang, H., Xu, Z. "A Capability Assessment Model for Emergency Management Operations," *Information Systems Frontiers*, Vol. 20, No. 4, 2018, pp. 653-667.

- Xu, Z., Luo, X., Liu, Y., Hu, C., Mei, L., Yen, N., Choo, K. K. R., Sugumaran, V. "From Latency, through Outbreak, to Decline: Detecting the States of Emergency Events Using Web Media Big Data," *IEEE Transactions on Big Data*, Vol. 4, No. 2, 2018, pp. 245-257.

- Yu, G., Liu, J., Du, J., Hu, M., Sugumaran, V. "An Integrated Approach for Massive Sequential Data Processing in Civil Infrastructure Operation and Maintenance," *IEEE Access*, Vol. 6, No. 1, 2018 pp. 19739-19751.

- Attili, P. V. S., Mathew, S. K., Sugumaran, V. "Understanding Information Privacy Assimilation in IT Organizations using Multi-Site Case Studies," *Communications of the Association for Information Systems*, Vol. 42, Article 4, 2018, pp. 66 – 94.

- Jing, N., Jiang, T., Du, J., Sugumaran, V. "Personalized Recommendation Based on Customer Preference Mining and Sentiment Assessment from Chinese E-Commerce Websites," *Electronic Commerce Research*, Vol. 18, No. 1, 2018, pp. 159-179.

- Arunarani, A. R., Manjula, D., Sugumaran, V. "FBAT-SCAS: A Security and Cost Aware Workflow Scheduling Approach Combining Firefly and Bat Algorithms," *Concurrency and Computation: Practice and Experience*, Vol. 29, No. 24, 2017, pp. 1 – 13.

- Balijepally, V., DeHondt, J., Sugumaran, V., Nerur, S. "Value Proposition of Agility in Software Development – An Empirical Investigation," *Journal of Database Management*, Vol. 28, No. 4, 2017, pp. 40 - 59.

- Sugumaran, V., Geetha, T.V., Manjula, D., Gopal, H. "Guest Editorial: Computational Intelligence and Applications," *Information Systems Frontiers*, Vol. 19, No. 5, 2017, pp. 969-974

- Rothenberger, M., Jain, H., Sugumaran, V. "A Platform-Based Design Approach for Flexible Software Components," *Journal of Information Technology Theory and Application*, Vol. 18, No. 2, 2017, pp. 29 – 56.

- Sathiya, B., Geetha, T.V., Sugumaran, V. "A Metric based Automatic Selection of Ontology Matcher Using Bootstrapped Patterns," *Journal of Web Engineering*, Vol. 16, No.7&8, 2017, pp. 619-652.

- Gao, X. Z., Sangaiah, A. K., Sugumaran, V. "Editorial: Cloud based cyber-physical systems in the design of next-generation digital systems," *Intelligent Automation & Soft Computing*, Vol. 23, No. 3, 2017, pp. 475–476.

- Du, J., Sugumaran, V., Gao, B. "RFID and Multi-Agent Based Architecture for Information Sharing in Prefabricated Component Supply Chain," *IEEE Access*, Vol. 5, No. 1, 2017, pp. 4132 – 4139.

- Du, J., Sugumaran, V. "Clustering and Ontology-Based Big Data Integration Framework for Surface Subsidence Risk Mitigation in Underground Tunnels," *Cluster Computing*, Vol. 19, No. 4, 2016, pp. 2001 – 2014.

- Suganya Devi, R., Manjula, D., Sugumaran, V. "Efficient Indexing Structure to Handle Durable Queries through Web Crawling," *Cluster Computing*, Vol. 19, No. 3, 2016, pp. 1347-1358.

- Wimmer, H., Yoon, V., Sugumaran, V. "A Multi-Agent System to Support Evidence Based Medicine and Clinical Decision Making via Data Sharing and Data Privacy," *Decision Support Systems*, Volume 88, 2016, pp. 51 – 66.

- Xu, Z., Zhang, H., Sugumaran, V. Choo, K. K. R., Mei, L., Zhu, Y. "Participatory Sensing based Semantic and Spatial Analysis of Urban Emergency Events using Mobile Social Media," *EURASIP Journal on Wireless Communications and Networking*, 2016:44, pp. 1 – 9.

- Xu, Z., Zhang, H., Hu, C., Mei, L., Xuan, J., Choo, K. K. R., Sugumaran, V., Zhu, Y. "Building Knowledge Base of Urban Emergency Events based on Crowdsourcing of Social Media," *Concurrency and Computation: Practice and Experience*, Vol. 28, No. 15, 2016, pp. 4038 – 4052.

- Kim, J., Naylor, G., Sivadas, E., Sugumaran, V. "The Unrealized Value of Incentivized eWOM Recommendations," *Marketing Letters*, Vol. 27, No. 3, 2016, pp. 411 – 421.

- Xu, Z., Wei, X., Liu, Y., Mei, L., Hu, C., Choo, K. K. R., Zhu, Y., Sugumaran, V. "Building the search pattern of web users using conceptual semantic space model," *International Journal of Web and Grid Services*, Vol. 12, No. 3, 2016, pp. 328-347.

- Krishnaraju, V., Mathew, S. K., Sugumaran, V. "Web Personalization for User Acceptance of Technology: An Empirical Investigation of E-Government Services," *Information Systems Frontiers*, Vol. 18, No. 3, 2016, pp. 579-595.

- Kim, D., Yim, M., Sugumaran, V., Rao, H. R. "Web Assurance Seal Services, Trust and Consumers' Concerns: An Investigation of E-Commerce Transaction Intentions across Two Nations," *European Journal of Information Systems*, Vol. 25, No. 3, 2016, pp. 252-273.

- Zhang, X., Sugumaran, V. "Content Based Search Engine for Historical Calligraphy Images," *International Journal of Intelligent Information Technologies*, Vol. 10, No. 3, 2014, pp. 1 – 18.

- Byun, J., Rhew, S., Hwang, M., Sugumaran, V., Park, S.Y., Park, S.J. "Metrics for Measuring the Consistencies of Requirements with Objectives and Constraints," *Requirements Engineering*, Vol. 19, No. 1, 2014, pp 89-104.

- Lee, Y.C., Hanh, N.T., Sugumaran, V. "Open Source CRM Software Selection Using the Analytic Hierarchy Process," *Information Systems Management*, Vol. 31, No. 1, 2014, pp. 2 – 20.

- Othman, S. H., Beydoun, G., Sugumaran, V. "Development and Validation of Disaster Management Metamodel (DMM)," *Information Processing & Management*, Vol. 50, No. 2, 2014, pp. 235 – 271.

- Leukel, J., Sugumaran, V. "Formal Correctness of Supply Chain Design," *Decision Support Systems*, Vol. 56, No. 1, 2013, pp. 288 – 299.

- Beydoun, G., Xu, D., Sugumaran, V. "Service Oriented Architectures (SOA) Adoption Challenges," *International Journal of Intelligent Information Technologies*, Vol. 9, No. 2, 2013, pp. 1 – 6.

- Warkentin, M., Sugumaran, V., Sainsbury, R. "The Role of Intelligent Agents and Data Mining in Electronic Partnership Management," *Expert Systems with Applications*, Vol. 39, No. 18, 2012, pp. 13277 – 13288.

- Bolloju, N., Schneider, C., Sugumaran, V. "A knowledge-based system for improving the consistency between object models and use case narratives," *Expert Systems with Applications*, Vol. 39, No. 10, 2012, pp. 9398 – 9410.

- Callaghan, J., Nehmer, R., Sugumaran, V. "Modeling Business Applications with XBRL and UML," *International Journal of Business Information Systems*, Vol. 10, No. 1, 2012, pp. 68 – 92.

- Bolloju, N., Sugumaran, V. "A Knowledge-based Object Modeling Advisor for Developing Quality Object Models," *Expert Systems with Applications*, Vol. 39, No. 3, 2012, pp. 2893 – 2906.

- Choi, S., Park, S., Sugumaran, V. "A Rule-Based Approach for Estimating Software development cost Using Function Point and Goal and Scenario Based Requirements," *Expert Systems with Applications*. Vol. 39, No. 1, 2012, pp. 406 – 418.

- Sharma, S., Sugumaran, V. "A Framework for Enhancing Systems Security," *Journal of Information Privacy and Security*, Vol. 7, No. 4, 2011, pp. 3 – 22.

- Wang, M., Jia, H., Sugumaran, V., Ran, W., Liao, J. "A Web-Based Learning System for Software Test Professionals," *IEEE Transactions on Education*, Vol. 54, No. 2, 2011, pp. 263 – 272.

- Mohan, K., Ramesh, B., Sugumaran, V. "Successful Practices in Integrating Software Product Line Engineering and Agile Development Methods," *IEEE Software*, Vol. 37, No. 3, 2010, pp. 48 – 55.

- Conesa, J., Storey, V.C., Sugumaran, V. "Usability of Upper Level Ontologies: The Case of ResearchCyc," *Data and Knowledge Engineering*, Vol. 69, No. 4, 2010, pp. 343 – 356.

- Leukel, J., Sugumaran, V. "A Semiotic Metrics Suite for Product Ontology Evaluation," *International Journal of Intelligent Information Technologies*, Vol. 5, No. 4, October – December 2009, pp. 1 – 15.

- Sugumaran, V., Shriram, R., Vivekanandan, K. "Mobile Community Networks: Evolution and Challenges," *International Journal of Mobile Computing and Multimedia Communications*, Vol. 1, No. 2, 2009, pp. 61 – 79.

- Shriram, R., Sugumaran, V., Vivekanandan, K. "A Middleware for Information Processing in Mobile Computing Platforms," *International Journal of Mobile Communications*, Vol. 6, No. 5, 2008, pp. 646 – 666.

- Kapetanios, E., Sugumaran, V., Tanase, D. "Multi-Lingual Web Querying: A Parametric Linguistics Based Approach," *Data and Knowledge Engineering*, Vol. 66, No. 1, 2008, pp. 35 – 52.

- Conesa, J., Storey, V.C., Sugumaran, V. "Using Semantic Knowledge to Improve Web Query Processing," *Data and Knowledge Engineering*, Vol. 66, No. 1, 2008, pp. 18 – 34.

- Storey, V.C., Burton-Jones, A., Sugumaran, V., Purao, S. "CONQUER: A Methodology for Context-Aware Query Processing on the World Wide Web," *Information Systems Research*, Vol. 19, No. 1, March 2008, pp. 3 – 25.

- Sugumaran, V., Tanniru, M., Storey, V.C. "A Knowledge-Based Framework for Extracting Components in Agile Systems Development," *Information Technology & Management*, Vol. 9, No. 1, 2008, pp. 37 – 53.

- Kim, J., Park, S., Sugumaran, V. "DRAMA: A Framework for Domain Requirements Analysis and Modeling Architectures in Software Product Lines," *Journal of Systems and Software*, Vol. 81, No. 1, 2008, pp. 37 – 55.

- Sugumaran, V., Sugumaran, R. "Web-based Spatial Decision Support Systems (WebSDSS): Evolution, Architecture, Examples and Challenges," *Communications of AIS*, Vol.19, Article 40, 2007, pp. 844 – 875.

- Kim, M., Park, S., Sugumaran, V., Yang, H. "Managing Requirements Conflicts in Software Product Lines: A Goal and Scenario Based Approach," *Data and Knowledge Engineering*, Vol. 61, No. 3, 2007, pp. 417-432.

- Sugumaran, V., Park, S. "Modeling Web Service Profiles for the Semantic Web: A UML Based Approach," *Journal of Computer Information Systems*, Vol. XLVII, No. 2, 2007, pp. 86 - 99.

- Dietrich, A., Kirn, S., Sugumaran, V. "A Service–oriented Architecture for Mass Customization – A Shoe Industry Case Study," *IEEE Transactions on Engineering Management*, Vol. 54, No. 1, 2007, pp. 190 – 204.

- Sugumaran, V., Park, S., Kang, K. C. "Software Product Line Engineering," *Communications of the ACM*, Vol. 49, No. 12, 2006, pp. 28 – 32.

- Sugumaran, V., Storey, V. "The Role of Domain Ontologies in Database Design: An Ontology Management and Conceptual Modeling Environment," *ACM Transactions on Database Systems*, Vol. 31, No. 3, 2006, pp. 1064 - 1094.

- Kim, J., Park, S., and Sugumaran, V. "Improving Use Case Driven Analysis using Goal and Scenario Authoring: A Linguistics-Based Approach," *Data and Knowledge Engineering*, Vol. 58, No. 1, 2006, pp. 21 – 46.

- Kim, J., Park, S., Sugumaran, V. "Contextual Problem Detection and Management during Software Execution in Complex Environments," *Industrial Management and Data Systems*, Vol. 106, No. 4, 2006, pp. 540 – 561.

- Bose, R., Sugumaran, V. "Challenges for Deploying Web Services-Based E-Business Systems in SMEs," *International Journal of E-Business Research*, Vol. 2, No. 1, 2006, pp. 1 – 18.

- Sugumaran, V., Dietrich, A., Kirn, S. "Supporting Mass Customization with an Agent-Based Coordination Method: Concept and Application," *Journal of Information Systems and E-Business Management*, Vol. 4, No. 1, 2006, pp. 83 – 106.

- Park, S., Na, H., Park, S., Sugumaran, V. "A Semi-Automated Filtering Technique for Software Process Tailoring Using Neural Network," *Expert Systems with Applications*, Vol. 30, No. 2, 2006, pp. 179-189.

- Burton-Jones, A., Storey, V., Sugumaran, V., Ahluwalia, P. "A Semiotic Metrics Suite for Assessing the Quality of Ontologies," *Data and Knowledge Engineering*, Vol. 55, No. 1, 2005, pp. 84 – 102.

- Isken, M.W., Sugumaran, V., Ward, T.J., Minds, D., and Ferris, W. "Collection and Preparation of Sensor Network Data to Support Modeling and Analysis of Outpatient Clinics," *Health Care Management Science*, Vol. 8, No. 2, 2005, pp. 87 – 99.

- Park, S., Sugumaran, V. "Designing Multi-Agent Systems: A Framework and Application," *Expert Systems with Applications*, Vol. 28, No. 2, 2005, pp 259-271.

- Kim, J., Kim, J., Park, S., Sugumaran, V. "A Multi-View Approach for Requirements Analysis using Goal and Scenario," *Industrial Management and Data Systems* Vol. 104, No. 9, 2004, pp. 702 – 711.

- Park, S., Kim, M., Sugumaran, V. "A Scenario, Goal and Feature Oriented Domain Analysis Approach for Developing Software Product Lines, " *Industrial Management and Data Systems*, Vol. 104, No. 4, 2004, pp. 296 – 308.

- Sugumaran, V., Arogyaswamy, B. "Measuring IT Performance: Contingency Variables and Value Modes," *Journal of Computer Information Systems*, Vol. XLIV, No. 2, 2003, pp. 79 – 86.

- Sugumaran, V., Storey, V., "A Semantic-Based Approach to Component Retrieval," *The DATABASE for Advances in Information Systems*, Vol. 34, No. 3, 2003, pp. 8 - 24.

- Bose, R., Sugumaran, V., "Application of knowledge management technology in customer relationship management," *Knowledge and Process Management*, Vol. 10, No. 1, 2003, pp. 3 – 17.

- Callaghan, J., Savage, A., Sugumaran, V. "Augmenting XBRL using UML: Improving Financial Analysis." *The Review of Business Information Systems*, Vol. 6, No. 4, 2002, pp. 27 – 33.

- Setzekorn, K., Sugumaran, V., "Interorganizational Learning: Does it Influence Organization Structure?" *Communications of IIMA*, Vol. 2, No. 2, 2002, pp. 72 – 81.

- Setzekorn, K., Sugumaran, V., "A Comparison of DMSS Implementation Issues With Those of Other IT Systems," *Information Resources Management Journal*, Vol. 15, No. 4, 2002, pp. 48 – 63.

- Sugumaran, V., Storey, V., "Ontologies for Conceptual Modeling: Their Creation, Use, and Management," *Data and Knowledge Engineering*, Vol. 42, No. 3, 2002, pp. 251 – 271.

- Sugumaran, V. "An Agent-Based Knowledge Management Framework for the E-Commerce Environment," *Journal of Computer Information Systems*, Vol. XXXXII, No. 5, 2002, pp. 63 – 73.

- Sharma, S., Sugumaran, V., Rajagopalan, B., "A Framework for Creating Hybrid-OSS Communities," *Information Systems Journal*, Vol. 12, No. 1, 2002, pp. 7 – 25.

- Sugumaran, V., Mobley, L., "Integrating Spatial Regression into Healthcare Decision Support Systems," *International Journal of Healthcare Technology and Management*, Vol. 4, No. 1/2, 2002, pp. 132 - 147.

- Warkentin, M., Sugumaran, V., Bapna, R., "eKnowledge Networks for Inter-Organizational Collaborative eBusiness," *Logistics Information Management*, Vol.14, No. 1/2, 2001, pp.149 – 162.

- Sugumaran, V., Tanniru, M., Storey, V., "A Domain Model for Supporting Reuse in Systems Analysis," *Communications of the ACM*, Vol. 43, No. 11es, Nov. 2000, pp. 312 - 322.

- Warkentin, M., Bapna, R., Sugumaran, V., "The Role of Mass Customization in Enhancing Supply Chain Relationships in B2C E-Commerce Markets," *Journal of Electronic Commerce Research*, Vol. 1, No. 2, 2000, pp. 45 – 52.

- Bose, R., Sugumaran, V., "Application of Intelligent Agent Technology for Managerial Data Analysis and Mining," *DATABASE for Advances in Information Systems*, Vol. 30, No. 1, 1999, pp. 77 – 94.

- Sugumaran, V., Bose, R., "Data Analysis & Mining Environment: A Distributed Intelligent Agent Technology Application," *Industrial Management and Data Systems*, 1999, Vol. 99, No. 2, pp. 71-80.

- Gomaa, H., Kerschberg, L., Sugumaran, V., Bosch, C., Tavakoli, I., and O'Hara, L., "A Knowledge-Based Software Engineering Environment for Reusable Software Requirements and Architectures," *Automated Software Engineering*, Vol. 3, 1996, pp. 285-307.

- Sugumaran, V., Bose, R., "Expert System Technology in Organizational Process Domain Modeling," *Expert Systems: The International Journal of Knowledge Engineering and Neural Network,* Vol. 13, No. 1, 1996, pp. 15 – 28.

- Bose, R., Sugumaran, V., "Knowledge-Based Approach to Domain Modeling: Organizational Process Modeling Example," *Journal of Network and Computer Applications,* Vol. 19, 1996, pp. 67 – 89.

- Sugumaran, V., Bose, R., "Organizational Process Modeling: A Domain Modeling Approach," *HEURISTICS: The Journal of Intelligent Technologies*, Vol. 8, No. 4, 1995, pp. 82 – 94.

- Sugumaran, V., "Component Reuse from Domain Models: A Knowledge-Based Approach," *Journal of Computing and Information*, Vol. 1, No. 1, 1994, pp. 1458-1473.

- Gomaa, H., Kerschberg, L., Sugumaran, V., "Knowledge Based Approach to Domain Modeling: Application to NASA's Payload Operations Control Centers," *International Journal of Telematics and Informatics*, Vol. 9, Nos. 3/4, 1992, pp. 281-296.

Papers under Review

- Suganeshwari, G., SyedIbrahim, S. P., Li, G., Sugumaran, V. "CWALK: An Improved Collaborative Filtering Using Implicit and Explicit Data," *Engineering Science and Technology, an International Journal*.

- Gajendran, S., Manjula, D., Sugumaran, V. "Location based Multi Task Classification with Bidirectional LSTM for Drug – Drug Interaction (DDI) Extraction," *Soft Computing*.

- Yu, G., Xiong, J., Hu, M., Shi, L., Sugumaran, V., Wang, Y.K., Zhang, H. "Integrating Mixed Reality and Artificial Intelligence into Building Information Modeling: A Collaborative Tunnel Emergency Drill System," *Advanced Engineering Informatics*.

- Srivastava, P., Eachempati, P., Sugumaran, V. "Factors Influencing the Choice of Supermarket: A Hybrid Machine Learning Approach," *Business & Information Systems Engineering*.

- Yu, G., Shi, L., Wang, Y., Hu, M., Mao, Z., Xiong, J., Sugumaran, V. "Three-dimensional Virtual Simulation System for Tunnel Emergency Deduction Based on Microservice," *Tunnelling and Underground Space Technology*.

- Tan, W., Zhao, Y., Tang, S., Sugumaran, V., Qin, X., Wang, Q. "C2SLAManagement Model for Cloud Computing Environment Using Blockchain and Smart Contract," *IEEE Transactions on Engineering Management*.

- Rajagopalan, S., Mathew, S. K., Sugumaran, V. "Methodology Fit in Software Development Projects: An Empirical Investigation," *Pacific Asia Journal of the Association for Information Systems*.

- Juan, C., Sun, J., Sugumaran, V., Xue, Z. "Expressway congestion control considering fuel and emission consumption based on MPC-HDMOGA," *Journal of Advanced Transportation*.

- Juan, C., Xu, L., Sugumaran, V. Xue, Z. "Managing Expressway Congestion Considering Environmental Impact Based on Model Predictive Control," *International Journal of Sustainable Transportation*.

- Xu, Z., Zhang; H., Luo; X., Sugumaran; V., Liu; Y., Mei; L. "Association Link Network based Sentimental Analysis of Web Events using Social Media," *Soft Computing*.

Refereed Book Chapters

- Sugumaran, V. "Semantic Technologies for Enhancing Knowledge Management Systems," Chapter 14 (pp.), in Liebowitz, J. (ed), Successes and Failures of Knowledge Management, Morgan Kaufmann, Imprint of Elsevier, Inc., Cambridge, MA 02139, 2016.

- Sugumaran, V., Shriram, R. "Typology and Challenges in Developing Mobile Middleware Based Community Network Infrastructure," Chapter XXI (pp. 329 – 343), in Khalil, I., and Weippl, E. (eds), Innovations in Mobile Multimedia Communications and Applications: New Technologies, IGI Global, Hershey, PA, 2011.

- Leukel, J., Sugumaran, V. "Semiotic Evaluation of Product Ontologies," Chapter IV (pp. 64 – 79), in Sugumaran (ed), Intelligent, Adaptive and Reasoning Technologies: New Developments and Applications, IGI Global, Hershey, PA, 2011.

- Sugumaran, V., DeHondt, G. "Towards Code Reuse and Refactoring As A Practice Within Extreme Programming," Chapter IV (pp. 63 – 78), in Erickson, J., and Siau, K. (eds), Contemporary Issues in Database Design and Information Systems Development, IGI Global, Hershey, PA, 2008.

- Bose, R.., Sugumaran, V. "Incorporating Web Services Into E-Business Systems: An SME Perspective," Chapter IX (pp. 183 – 208), in Lee, I. (ed), E- Business Models, Services, and Communications, IGI Global, Hershey, PA, 2008.

- Bose, R., Sugumaran, V. "Semantic Web Technologies for Enhancing Intelligent DSS Environments," (pp. 221 – 238), in Kulkarni, U., Power, D., and Sharda R. (eds), Decision Support for Global Enterprises, Springer-Verlag, 2007.

- Ilavajhala, S., Sugumaran, R., Sugumaran, V. "Development of a Web-Based Intelligent Spatial Decision Support System (WebISDSS): A Case Study with Snow Removal Operations," Chapter VIII (pp. 184 – 202), in Hilton, B. N. (ed), Emerging Spatial Information Systems and Applications, Idea Group Inc., Hershey, PA, 2006.

- Warkentin, M., Sugumaran, V., Bapna, R. "Intelligent Agents for Electronic Commerce: Trends and Future Impact on Business Models and Markets," Chapter 7 (pp. 101 – 120), in Rahman, Syed Mahbaubur and Bignall, Robert (eds.), Internet Commerce and Software Agents: Cases Technologies and Opportunities, Hershey, PA: Idea Group Publishing, 2001

- Park, S., Sugumaran, V. "A Modeling Methodology for Intelligent Agents: An Electronic Commerce Application," Chapter 5 (pp. 64 – 84), in Chen, Qiyang (ed), Human Computer Interaction: Issues and Challenges, IDEA Group Publishing, 2001.

Edited Books

- Lyu, K., Hu, M., Du, J., Sugumaran, V. AI-Based Services for Smart Cities and Urban Infrastructure, IGI-Global, Hershey, PA, (In progress, to be published in 2020)

- Métais, E., Meziane, F., Vadera, S., Sugumaran, V., Saraee, M. Natural Language Processing and Information Systems, Lecture Notes in Computer Science, LNCS 11608, Springer Berlin/Heidelberg, Germany, 2019.

- Sugumaran, V. Developments and Trends in Intelligent Technologies and Smart Systems, IGI Global, Hershey, PA, 2017.

- Sugumaran, V., Arunkumar, T., Arun Kumar, S. Computational Intelligence Applications in Business Intelligence and Big Data Analytics, Taylor and Francis Group, Boca Raton, FL, 2017.

- Métais, E., Meziane, F., Saraee, M., Sugumaran, V., Vadera, S. Natural Language Processing and Information Systems, Lecture Notes in Computer Science, LNCS 9612, Springer Berlin/Heidelberg, Germany, 2016.

- Sugumaran, V., Yoon, V., Shaw, M. E-Life: Web-Enabled Convergence of Commerce, Work, and Social Life, Springer Berlin/Heidelberg, Germany, 2016

- Sugumaran, V. Recent Advances in Intelligent Technologies and Information Systems, IGI Global, Hershey, PA 2015.

- Métais, E., Meziane, F., Saraee, M., Sugumaran, V., Vadera, S. Natural Language Processing and Information Systems, Lecture Notes in Computer Science, LNCS 7934, Springer Berlin/Heidelberg, Germany, 2013.

- Sugumaran, V. Organizational Efficiency through Intelligent Information Technologies, IGI Global, Hershey, PA, 2013.

- Sugumaran, V. Insights into Advancements in Intelligent Information Technologies: Discoveries, IGI Global, Hershey, PA, 2012.

- Sugumaran, V., Gulla J. A. Applied Semantic Web Technologies, Taylor and Francis Group, Boca Raton, FL, August 2011.

- Sugumaran, V. Intelligent, Adaptive and Reasoning Technologies: New Developments and Applications, IGI Global, Hershey, PA, 2011.

- Kang, K., Sugumaran, V., Park, S. Applied Software Product Line Engineering, Taylor and Francis Group, Boca Raton, FL, January, 2010.

- Sugumaran, V. Methodological Advancements in Intelligent Information Technologies: Evolutionary Trends, IGI Global, Hershey, PA, 2010.

- Sugumaran, V. Distributed Artificial Intelligence, Agent Technology, and Collaborative Applications, IGI Publishing, Hershey, PA, 2009.

- Kapetanios, E., Sugumaran, V., Spiliopoulou, M. Natural Language and Information Systems, Lecture Notes in Computer Science, LNCS 5039, Springer Berlin/Heidelberg, Germany, 2008.

- Sugumaran, V. Intelligent Information Technologies and Applications, IGI Publishing, Hershey, PA, 2008.

- Sugumaran, V. Intelligent Information Technologies: Concepts, Methodologies, Tools, and Applications, Four Volumes, Information Science Reference, Hershey, PA, 2008.

- Sugumaran, V. <u>Application of Agents and Intelligent Information Technologies</u>, Idea Group, Inc., Hershey, PA, 2007.
- Sugumaran, V. <u>Intelligent Support Systems Technology: Knowledge Management</u>, IRM Press, Hershey, PA, 2002.

Journal Special Issues

- Xu, Z., Sugumaran, V., Yen, N. Y. *Electronic Commerce Research*, Special issue on Algorithmic and Knowledge-based Approaches to Assessing Consumer Sentiment in Electronic Commerce (in progress).
- Xu, Z., Liu, Y., Yen, Choo, K. K. R. *IEEE Access*, Special issue on Intelligent Sensing on Mobile and Social Media Analytics (in progress).
- Sugumaran, V., Geetha, T. V., Manjula, D., Hema, G. *Information Systems Frontiers*, Special issue on Computational Intelligence and Applications, Vol. 19, No. 5, Oct. 2017.
- Gao, X. Z., Sangaiah, A. K., Sugumaran, V. *Intelligent Automation & Soft Computing*, Special Issue on Cloud based cyber-physical systems in the design of next-generation digital systems, Vol. 23, No. 3, 2017.
- Chau, M., Sugumaran, V. *International Journal of Electronic Business*, Special Issue on Advances in E-Business Research, Vol. 6, No. 1, 2008.
- Sugumaran, V., Kang, K.C., Park, S. *Communications of the ACM*, SPECIAL ISSUE: Software Product Line, Vol. 49, No. 12, December 2006.

Refereed Proceedings Publications

- Muralikrishnan, R. K, Gopalakrishna, P., Sugumaran, V. "Biomedical Named Entity Recognition (NER) for Chemical-Protein Interactions," *Americas Conference on Information Systems (AMCIS 2021),* August 9-13, 2021.
- Krutheeka, B., Mathew, S., Sugumaran, V. "What Do I Do? Uncovering Fitness Tracker Users' Coping Strategy," *Americas Conference on Information Systems (AMCIS 2021),* August 9-13, 2021.
- Krishnan, G. S., Kamath, S., Sugumaran, V., Predicting Vaccine Hesitancy and Vaccine Sentiment using Topic Modeling and Evolutionary Optimization, 26th International Conference on Natural Language & Information Systems (NLDB 2021), June 23-25, 2021.
- Sreedevi, A. G., Palaniappan, S., Shankar, P., Sugumaran, V. "Multi-Agent System for Weather Forecasting in India," *1st Workshop on Digitization in the Flux of Big Data Scenarios (DigBD 2021),* June 14, 2021.
- Beydoun, G., Suryanto, H., Guan, C., Guan, A., Sugumaran, V. "Knowledge Graphs in Support of Credit Risk, *Australasian Conference on Information Systems (ACIS 2020)*, Wellington, New Zealand, December 1 – 4, 2020.
- Park, G., Chung, L., Johng, H., Sugumaran, V., Park, S., Zhao, L., Supakkul, S. "A Big Data Conceptual Model to Improve Quality of Business Analytics," *14th International*

Conference on Research Challenges in Information Science, Limassol, Cyprus, September 23 - 25, 2020.

- Krutheeka, B., Mathew, S., Sugumaran, V., "Are You Coping or Copping Out? Wearable Users' Information Privacy Perspective," *Americas Conference on Information Systems (AMCIS 2020)*, Salt Lake City, Utah, August 12-16, 2020.

- Leukel, J., Schehl, B., Sugumaran, V. "To do or not to do: How socio-demographic characteristics of older adults are associated with online activities," *22nd International Conference on Human-Computer Interaction*, Copenhagen, Denmark, 19-24 July 2020.

- Du, J., Zhang, J., Gu, Y., Sugumaran, V. "Controlling Risk from Design Changes in Chinese Prefabricated Construction Projects: An Empirical Investigation," *18th Pre-ICIS Workshop on e-Business (WeB 2019)*, Munich, Germany, December 14, 2019.

- Park, G., Chung, L., Park, S., Sugumaran, V. "Conceptual Modeling for Big Data to Improve Quality of Business Analytics," *IEEE 13th International Conference on Research Challenges in Information Science (RCIS 2019)*, Brussels, Belgium, 29-31 May 2019.

- Attili, P., Mathew, S., Sugumaran, V. "Organizational Culture and Information Privacy Assimilation: An Empirical Study," *Workshop on Information Security and Privacy (WISP 2018)*, San Francisco, CA, December 13, 2018.

- Du, J., Wang, X., Sugumaran, V. "An Ecological Business Model for Intelligent Operation and Maintenance of Urban Infrastructure," *17th Pre-ICIS Workshop on e-Business (WeB 2018)*, San Francisco, CA, December 12, 2018.

- Park, G., Sugumaran, V., Park, S. "A Reference Model for Big Data Analytics," *9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON 2018)*, New York, November 8 – 10, 2018.

- Qi, Z., Sugumaran, V. "Ontology Development through Concept Map and Text Analytics: The Case of Automotive Safety Ontology," *23rd International Conference on Application of Natural Language to Information Systems (NLDB2018)*, Paris, France, June 13 -15, 2018, pp.

- Attili, P. V. S., Mathew, S. K., Sugumaran, V. "Information Privacy Assimilation in IT Organizations: An Empirical Investigation," *Workshop on Information Security and Privacy (WISP 2017)*, Seoul, South Korea, December 9, 2017.

- Park, Y., Sugumaran, V. "Critical Success Factors Impacting the Selection of IaaS Cloud Computing Service: A South Korean Perspective," *Workshop on e-Business (WeB 2017)*, Seoul, South Korea, December 10, 2017.

- Du, J., Sugumaran, V. "Ontology-Based Information Integration and Decision Making in Prefabricated Construction Component Supply Chain," *23nd Americas Conference on Information Systems (AMCIS 2017)*, Boston, August 10 – 12, 2017.

- Attili, P. V. S., Mathew, S. K., Sugumaran, V. "Antecedents of Information Privacy Assimilation in Indian IT Organizations: An Empirical Investigation," *23nd Americas Conference on Information Systems (AMCIS 2017)*, Boston, August 10 – 12, 2017.

- Callaghan, J., Sugumaran, V. "Use of Technology in Remote Monitoring and Pain Management for Patients with Sickle Cell Disease," *23nd Americas Conference on Information Systems (AMCIS 2017)*, Boston, August 10 – 12, 2017.

- Leukel, J., Sugumaran, V. "Understanding Highly Expressive Conceptual Schemas: An Experimental Study Using Inference and Problem-Solving Tasks," *International Conference on Information Systems (ICIS'16)*, Dublin, Ireland, December 11-14, 2016.

- Karaenke, P., Leukel, J., Sugumaran, V. "Using Domain Ontology for Service Replacement Tasks: An Empirical Evaluation," *International Conference on Information Systems (ICIS'16)*, Dublin, Ireland, December 11-14, 2016.

- Rajagopalan, S., Mathew, S. K., Sugumaran, V. "Fit of Development Methodologies in Software Projects," *22nd Americas Conference on Information Systems (AMCIS 2016)*, San Diego, August 11 – 14, 2016.

- McDaniel, M., Storey, V., Sugumaran, V. "The Role of Community Acceptance in Assessing Ontology Quality," *21st International Conference on Application of Natural Language to Information Systems (NLDB2016),* University of Salford, Manchester, UK, June 22 – 24, 2016, pp.

- Xu, Z., Zhang, H., Sugumaran, V. "Crowdsourcing based Spatial Mining of Urban Emergency Events using Social Media," 1st ACM SIGSPATIAL International Workshop on the Use of GIS in Emergency Management, November 3, 2015, Seattle, Washington, USA.

- Leukel, J., Mueller, M., Sugumaran, V. "The State of Design Science Research within the BISE Community: An Empirical Investigation," *International Conference on Information Systems (ICIS'14)*, Auckland, New Zealand, December 14-17, 2014.

- Storey, V. C., Sugumaran, V., Park, E. H., Qi, Z. "A Sentiment Ontology Prototype: Architecture and Development," 24th Workshop on Information Technology and Systems, Auckland, New Zealand, December 17-19, 2014.

- Sugumaran, V., Ganesan, S., Bhojan, R., Parameswaran, R. "An Agent-Based System for Medication Adherence Monitoring and Patient Care," *20th Americas Conference on Information Systems (AMCIS'14)*, Savannah, Georgia, August 7-9, 2014.

- Balijepalli, V., DeHondt, G., Sugumaran, V., Nerur, S. "Value Proposition of Agility in Software Development – An Empirical Investigation," *20th Americas Conference on Information Systems (AMCIS'14)*, Savannah, Georgia, August 7-9, 2014.

- Gill, A., Smith, S., Beydoun, G., Sugumaran, V. "Agile Enterprise Architecture: A Case of a Cloud Technology-enabled Government Enterprise Transformation," 18th Pacific Asia Conference on Information Systems (PACIS 2014), Chengdu, China, June 24 – 28.

- Sugumaran, V., Ganesan, S., Parameswaran, R., Bhojan, R. "A Service System Design for Chronically Ill Out-Patient Care and Monitoring," *Proceedings of the SIG Services Workshop (Pre-ICIS)*, Milan, Italy, December 15, 2013.

- Krishnaraju, V., Mathew, S. K., Sugumaran, V. "Role of Web Personalization in Consumer Acceptance of E-Government Services," *19th Americas Conference on Information Systems (AMCIS'13)*, Chicago, Illinois, August 15-17, 2013.

- Givens, S., Storey, V., Sugumaran, V. "A Method for Improving Business Intelligence Interpretation through the use of Semantic Technology," *18th International Conference on Application of Natural Language to Information Systems (NLDB2013),* University of Salford, MediaCityUK, June 19 – 21, 2013, pp. 408-411.

- Karaenke, P., Leukel, J., Sugumaran, V. "Ontology-based QoS Aggregation for Composite Web Services," *11th International Conference on Wirtschaftsinformatik*, Leipzig, Germany, February 27 – March 1, 2013.

- Givens, S., Storey, V., Sugumaran, V. "Targeted Ontology for Data Analytics (TODA): Using Semantic Technology to Facilitate Business Intelligence Interpretation," *Pre-ICIS BI Congress 3*, Orlando, FL, December 15 - 16, 2012.

- Sugumaran, V., Shriram, R., Banu, A. "Factors Impacting Student Performance in Engineering Education in Developing Countries," *Decision Sciences Institute Annual Conference (DSI2012)*, San Francisco, CA, November 17-20, 2012.

- Lee, Y. C., Tang, H. N., Sugumaran, V. "A Deployment Model for Cloud Computing using the Analytic Hierarchy Process and BCOR Analysis," *18th Americas Conference on Information Systems (AMCIS'12)*, Seattle, Washington, August 9-11, 2012.

- Anand, R., Ganesan, S., Sugumaran, V. "A Cloud Based Solution with IT Convergence for Eliminating Manufacturing Wastes," *International Workshop on Software and Services for IT Convergence (SSIC 2012)*, Jeju, South Korea, July 16 – 18, 2012.

- Kim, N., Lee, Y., Sugumaran, V., Park, S., In, H.P., Park, S. "Value-based Prioritization of Use Case in Embedded Systems," *The 7th Asia Pacific International Conference on Information Science and Technology* (APIC-IST), Jeju Island, Korea, July 4 - 7, 2012.

- Shriram, R., Sugumaran, V. "Predictive Text Entry Model for Natural Language in Mobile Phones: The Case of Tamil Language," *European, Mediterranean & Middle Eastern Conference on Information Systems (EMCIS)*, 2012, June 7 – 8, 2012, Munich, Germany.

- Lee, J., Lee, D., Sugumaran, V., Park, S. "Identifying Extract Class refactoring opportunities using relational cohesion metric," International Conference on Advanced Information Technology and Sensor Application, Feb 28-29, 2012, Daejeon, S. Korea.

- Lee, J., Sugumaran, V., Park, S. "Managing Service System Requirements for Korean Medical Tourism," *International Conference on Advancements in Information Technology (ICAIT 2011)*, Chennai, India, 17-18 December, 2011, pp. 33 – 37.

- Lee, J., Sugumaran, V., Park, S. "Requirements Management Using KANO Model and AHP for Service Systems Design," *3rd International Workshop on Workflow Management in Service and Cloud Computing (WMSC 2011)*, Sydney, Australia, December 12 – 14, 2011.

- Conesa, J., Storey, V.C., Sugumaran, V., Caballe, S. "Knowledge Reuse: Its Role and Implications for Upper Level Ontologies," *Third International Conference on Intelligent Networking and Collaborative Systems (INCoS 2011)*, Fukuoka, Japan, Nov 30 - Dec 2, 2011, pp.

- Cho, S., Sugumaran, V. "Impact of Network Management Capacity on Competitive Advantage for Medical Tourism," *The Second Annual Workshop on Health IT and Economics (WHITE2011)*, October 21-22 2011, Washington, DC.

- Cho, S. Sugumaran, V. "Factors Affecting the Competitive Advantage of the South Korean Medical Tourism Industry," *Workshop on Interactive Systems in Healthcare (WISH2011)*, October 22, 2011, Washington DC, pp. 102 – 106.

- Kim, S., Lee, Y., Zhu, Y., Kim, D., Lu, L., Sugumaran, V. "A Feature-Based Modeling Approach to Configuring Privacy and Temporality in RBAC," *23rd International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)*, Miami Beach, USA, July 7 - July 9, 2011, pp.

- Purao, S., Storey, V.C., Sugumaran, V., Conesa, J., Minguillon, J., Casas, J. "Repurposing Social Tagging Data for Extraction of Domain-Level Concepts," *International Conference on Application of Natural Language to Information Systems (NLDB 2011)*, Alicante, Spain, June 28 – 30, 2011, pp. 185 – 192.

- Kim, H., Yoon, H., Cho, Y., Park, S., Sugumaran, V. "Multi-layered Adaptive Monitoring in Service Robots," *Fifth International Conference on Secure Software Integration and Reliability Improvement – Companion (SSIRI-C)*, Jeju Island, Korea, June 27 – 29, 2011, pp.76-83.

- Yoon, H., Cho, S., Sugumaran, V. "A Service System Design to Support Medical Tourism in South Korea," *International Conference on Information Resources Management (Conf-IRM 2011)*, Seoul, Korea, June 12-14, 2011, pp.

- Lee, J., Sugumaran, V., Nah, J., Park, Y. "Electric Car Sharing Service Using Mobile Technology," *International Conference on Information Resources Management (Conf-IRM 2011)*, Seoul, Korea, June 12-14, 2011, pp.

- Lee, J., Sugumaran, V., Park, S., Sansi, D. "An Approach for Service Identification using Value Co-Creation and IT Convergence," *International Workshop on Software and Services for IT Convergence (SSIC 2011)*, Jeju, South Korea, May 23, 2011, pp.

- Ganesan, S., Sugumaran, V. "Non Functional Requirements for IT Convergence and Infrastructure," *International Workshop on Software and Services for IT Convergence (SSIC 2011)*, Jeju, South Korea, May 23, 2011.

- Kim, S., Kim, S., Sugumaran, V., Park, S. "A Scenario Based Approach for Service Identification," *4th IEEE International Workshop on Requirements Engineering For Services (REFS 2010)*, Seoul, South Korea, July 19 - 23, 2010, pp.

- Sugumaran, V., Purao, S., Storey, V.C., Conesa, J. "On-Demand Extraction of Domain Concepts and Relationships from Social Tagging Websites," *International Conference on Applications of Natural Language to Information Systems (NLDB 2010)*, Cardiff, UK, June 23 – 25, 2010, pp.

- Bose, R., Sugumaran, V. "Adopting Green IT: Opportunities & Challenges," *International Conference on Global Interdependence and Decision Sciences (ICGIDS 2009)*, Hyderabad, India, Dec. 28 – 30, 2009, pp.

- Sugumaran, V., Meziane, F. "An Architecture to Support Web-Based Information Extraction Using Domain Ontologies," *Eighth Workshop on e-Business (WeB'09)*, Phoenix, AZ, December 15, 2009, pp. 1 – 9.

- Purao, S., Sugumaran, V., Storey, V. "From User-Contributed Tags to Domain-Level Constructs: A Heuristic Approach," *19th Workshop on Information Technologies and Systems (WITS'09)*, December 14-15, 2009, Phoenix, AZ, pp. 145 – 150.

- Sugumaran, V., Subramanian, A. "Flexible Process Modeling and Execution in the Healthcare Domain," *Decision Sciences Institute Annual Conference*, New Orleans, LA, November 14 – 17, 2009, pp. 3761 – 3766.

- Wang, M., Jia, H., Ran, W., Sugumaran, V., Liao, J. "Ontology-Based Intelligent Agents in Workplace E-Learning," *15th Americas Conference on Information Systems (AMCIS'09)*, San Francisco, California, August 6 – 9, 2009, Paper 180.

- Shriram, R., Sugumaran, V. "Cross Lingual Information Retrieval Using Data Mining Methods," *15th Americas Conference on Information Systems (AMCIS'09)*, San Francisco, California, August 6 – 9, 2009, Paper 429.

- Gulla, J. A., Sugumaran, V., Brasethvik, T. "Issues in Ontology Creation for Web Search," *Seventh Workshop on e-Business (WeB'08)*, Paris, France, December 13, 2008, pp.

- Sugumaran, V., Shriram, R., Vivekanandan, K. "Towards a Mobile Community Based Middleware for Spontaneous Interaction," *Decision Sciences Institute Annual Conference*, Baltimore, MD, November 22 – 25, 2008, pp. 2931 – 2936.

- Gulla, J. A., Sugumaran, V. "An Ontology Creation Methodology: A Phased Approach," *2nd International Workshop on Ontology Dynamics (IWOD-08)*, Karlsruhe, Germany, October 27, 2008, pp. 15 – 28.

- Gulla, J. A., Sugumaran, V. "An Interactive Ontology Learning Workbench for Non-Experts," *2nd International Workshop on Ontologies and Information Systems for the Semantic Web (ONISW 2008)*, Napa Valley, CA, October 30, 2008, pp. 9 – 16.

- Joerg, L., Sugumaran, V. "Evaluating Product Ontologies in E-Commerce: A Semiotic Approach," *Sixth Workshop on e-Business (WeB'07)*, Montreal, Canada, December 10, 2007, pp. 240 – 249.

- DeHondt, G., Sugumaran, V. "Code Reuse as a Practice within Extreme Programming," *Decision Sciences Institute Annual Conference*, Phoenix, Arizona, November 17 – 20, 2007, pp. 3321 – 3326.

- Bolloju, N., Sugumaran, V. "Quality Dependencies among Use Case Models and Sequence Diagrams Developed by Novice Systems Analysts," *3rd International Workshop on Foundations and Practices of UML (FP-UML'07)*, Auckland, New Zealand, November 5-9, 2007, pp. 96 – 105.

- Sugumaran, V., DeHondt, G. "An Integrated Framework for Code Reuse and Refactoring in Extreme Programming," *Americas Conference on Information Systems*, Keystone, Colorado, August 9 – 12, 2007, pp.

- Conesa, J., Storey, V.C., Sugumaran, V. "Experiences Using the ResearchCyc Upper Level Ontology," *International Workshop on Applications of Natural Language to Information Systems (NLDB2007),* Paris, France, June 27 – June 29, 2007, pp. 143 – 155.

- Shriram, R., Sugumaran, V. "Adaptive Middleware Architecture for Information Sharing on Mobile Phones," *22nd Annual ACM Symposium on Applied Computing (SAC'07)*, Seoul, Korea, March 11 - 15, 2007, pp. 800 – 804.

- Park, S., Park, S., Sugumaran, V. "Extending Reusable Asset Specification to Improve Software Reuse," *22nd Annual ACM Symposium on Applied Computing (SAC'07)*, Seoul, Korea, March 11 - 15, 2007, pp. 1473 – 1478.

- Shriram, R., Sugumaran, V. "M-Commerce Application Architecture Using Adaptable Middleware," *Fifth Workshop on e-Business (WeB'06)*, Milwaukee, WI, December 9, 2006, Session II(A).

- Conesa, J., Storey, V.C., Sugumaran, V. "ResearchCyc and its Application to Web Queries," *Workshop on Information Technologies and Systems (WITS'06)*, Milwaukee, WI, December 9-10, 2006, pp. 227.

- Rothenberger, M., Jain, H., Sugumaran, V. "Flexible Software Component Design Using a Product Platform Approach," *International Conference on Information Systems (ICIS'06)*, Milwaukee, Wisconsin, December 10 – 13, 2006, pp. 181 – 193.

- Shriram, R., Sugumaran, V., Kapetanios, E. "Cross-Lingual Information Retrieval and Delivery Using Community Mobile Networks," *International Conference on Digital Information Management (ICDIM)*, Bangalore, India, December 06-08, 2006, pp. 320 – 325.

- Kim, M., Park, S., Sugumaran, V. "Towards Dynamic Software Product Lines," *Decision Sciences Institute Annual Conference,* San Antonio, TX, November 18 – 21, 2006, pp. 28161 – 28166.

- Callaghan, J., Nehmer, R., Sugumaran, V. "Modeling XBRL-based Applications with UML: Developing Balanced-Scorecard Management Appraisal Systems," *Americas Conference on Information Systems*, Acapulco, Mexico, August 4 – 6, 2006, pp. 1229 – 1235.

- Kapetanios, E., Sugumaran, V., Tanase, D. "Multi-Lingual Web Querying: A Parametric Linguistics Based Approach," *International Workshop on Applications of Natural Language to Information Systems (NLDB2006),* Klagenfurt, Austria, May 31 – June 2, pp. 94 – 105.

- Conesa, J., Storey, V.C., Sugumaran, V. "Using Semantic Knowledge to Improve Web Query Processing," *International Workshop on Applications of Natural Language to Information Systems (NLDB2006),* Klagenfurt, Austria, May 31 – Jun 2, pp. 106 – 117.

- Choi, S., Park, S., Sugumaran, V. "Function Point Extraction Method from Goal and Scenario Based Requirement Text," *International Workshop on Applications of Natural Language to Information Systems (NLDB2006),* Klagenfurt, Austria, May 31 – June 2, pp. 12 – 24.

- Sugumaran, V., Sugumaran, R. "Web-based Spatial Decision Support Systems (WebSDSS): Evolution, Architecture, and Challenges," Third Annual SIGDSS Pre-ICIS Workshop, Las Vegas, Nevada, December 11, 2005, pp.

- Dietrich, A., Sugumaran, V., Kirn, S. "Adaptive Information Systems for Mass Customization: A Web Services Based Architecture and Case Study," Fourth Workshop on e-Business (WeB 2005), Las Vegas, Nevada, December 10, 2005, pp. 202 – 208.

- Bose, R., Sugumaran, V. "Semantic Web for E-Business," *Decision Sciences Institute Annual Conference*, San Francisco, CA, November 19 – 22, 2005, pp. 16431 – 16436.

- Sugumaran, R., Ilavajhala, S., Sugumaran, V. "Experiences with Implementing a Spatial Decision Support System for Planning Snow Removal Operations," *Americas Conference on Information Systems*, Omaha, Nebraska, August 11 – 14, 2005, pp. 1668 – 1676.

- Storey, V., Sugumaran, V., Ding, Y. "A Semi-Automatic Approach to Extracting Common Sense Knowledge from Knowledge Sources," *International Workshop on Applications of Natural Language to Information Systems (NLDB2005),* Alicante, Spain, June 15 – 17, 2005, pp. 322 – 332.

- Yang, H., Kim, M., Park, S., Sugumaran, V. "A Process and Tool Support for Managing Activity and Resource Conflicts Based on Requirements Classification," *International Workshop on Applications of Natural Language to Information Systems (NLDB2005),* Alicante, Spain, June 15 – 17, 2005, pp. 114 – 125.

- Bose, R., Sugumaran, V. "Challenges in Integrating Web Services into E-Commerce Applications," *Decision Sciences Institute Annual Conference*, Boston, MA, Nov. 20 -23, 2004, pp. 7961 – 7966.

- Sugumaran, R., Sugumaran, V., Salim, M., Villavicencio, A. "An Agent-Based Spatial Decision Support System for Snow Removal Asset Management: A Web-Based Approach," *Americas Conference on Information Systems*, New York, NY, August 5 – 8, 2004, pp. 2176 – 2183. (**Nominated for Best Paper Award**)

- Kim, J., Park, S., Sugumaran, V. "A Linguistics-Based Approach for Use Case Driven Analysis Using Goal and Scenario Authoring," *International Workshop on Applications of Natural Language to Information Systems (NLDB2004),* Manchester, UK, June 23 – 25, 2004, pp. 159 – 170.

- Storey, V., Sugumaran, V., and Burton-Jones, A. "The Role of User Profiles in Context-Aware Query Processing for the Semantic Web," *International Workshop on Applications of Natural Language to Information Systems (NLDB2004),* Manchester, UK, June 23 – 25, 2004, pp. 51 – 63.

- Sugumaran, V., Kirn, S., Dietrich, A. "Towards an Agent-Based Mass Customization Environment: Architecture and Coordination," *Second Workshop on E-Business (WeB '03),* Seattle, Washington, December 13 – 14, 2003, pp. 329 – 335.

- Umapathy, K., Purao, S., Sugumaran, V. "Facilitating Conversations among Web Services as Speech-act based Discourses," *13th Annual Workshop on Information Technologies and Systems (WITS'03)*, Seattle, Washington, December 13-14, 2003, pp. 85 – 90.

- Sugumaran, V., Storey, V. "Supporting Database Designers in Entity-Relationship Modeling: An Ontology-Based Approach," *International Conference on Information Systems (ICIS'03)*, Seattle, Washington, December 14th – 17th, 2003, pp. 59 – 71.

- Setzekorn, K., Sugumaran, V., Chandrababu, M., "E-Government: Transformation Catalyst in Kerala State, India," *Decision Sciences Institute Annual Conference*, Washington, D.C., November 22 – 25, 2003, pp.

- Burton-Jones, A., Storey, V., Sugumaran, V., Purao, S. "A Heuristic-based Methodology for Semantic Augmentation of User Queries on the Web," *22nd International Conference on Conceptual Modeling*, Chicago, Illinois, October 13 – 16, 2003, pp. 476 – 489.

- Sugumaran, V., Sugumaran, R. "Spatial Decision Support Systems Using Intelligent Agents and GIS Web Services," *Americas Conference on Information Systems*, Tampa, Florida, August 4 – 6, 2003, pp. 2481 – 2486.

- Storey, V., Burton-Jones, A., Sugumaran, V., Ahluwalia, P. "Assessing the Effectiveness of the DAML Ontologies for the Semantic Web," *8th International Workshop on Applications of Natural Language for Information Systems*, Burg, Germany, June 23-25, 2003, pp. 56 – 69.

- Sugumaran, V., Burton-Jones, A., and Storey, V.C. "A Multi-Agent Prototype for Intelligent Query Processing on the Semantic Web," *Proceedings of the 12th Annual Workshop on Information Technology and Systems (WITS)*, Barcelona, Spain, Dec. 14-15, 2002, pp.

- Sugumaran, V., Storey, V. "An Ontology-Based Conceptual Modeling Environment," *Proceedings of the 12th Annual Workshop on Information Technology and Systems (WITS)*, Barcelona, Spain, Dec. 14-15, 2002, pp.

- Rajagopalan, B., Lauer, T., Sugumaran, V., Lauer, R., Goldberg, J. "Creation and Use of Knowledge Artifacts in Software Development: A Case Study at EDS-Global Interactive Solutions," *Proceedings of the 12th Annual Workshop on Information Technology and Systems (WITS)*, Barcelona, Spain, Dec. 14-15, 2002, pp.

- Sharma, S., Sugumaran, V. "A Systems Development Life Cycle View of E-Commerce Security," *Decision Sciences Institute Annual Conference*, San Diego, CA, November 23 – 26, 2002, pp. 1389 – 1394.

- Setzekorn, K., Sugumaran, V., Patnayakuni, N., Sung, J. "Implementation Resistance Factors for Decision Making Support Systems: A Comparative Analysis," *Decision Sciences Institute Annual Conference*, San Diego, CA, November 23 – 26, 2002, pp. 186 – 191.

- Callaghan, J., Savage, A. & Sugumaran, V. "Augmenting XBRL using UML: Improving Financial Analysis." *Fourth Annual AIS Educator Conference*, Copper Mountain, July 2002, CO **(Best Paper Award)**.

- Park, S., Sugumaran, V. "Goal-Oriented Analysis for Web Services Application Development," *Americas Conference on Information Systems*, Dallas, TX, August 9 – 11, 2002, pp. 1484 – 1488.

- Sugumaran, V., Storey, V. "An Ontology-based Framework for Generating and Improving Database Design," *7th International Workshop on Applications of Natural Language for Information Systems*, Stockholm, Sweden, June 27-28, 2002, pp. 15 – 26.

- Sugumaran, V., Tanniru, M., "Life Cycle Based Approach for Knowledge Management: A Knowledge Organization Case Study," *The Fourteenth International Conference on Advanced Information Systems Engineering (CAiSE'02),* Toronto, Canada, May 27 - 31, 2002, pp.

- Sugumaran, V., "Retrieving and Reusing Components During Systems Development," *Proceedings of Decision Sciences Institute Annual Conference*, San Francisco, CA, November 17-20, 2001, pp. 1028 – 1030.

- Sharma, S., Sugumaran, V., Rajagopalan, B., "Structure of Open-Source Software Organization: What Can We Learn from It?" *Proceedings of Decision Sciences Institute Annual Conference*, San Francisco, CA, November 17-20, 2001, pp. 953 – 955.

- Sugumaran, V., Davis, K., "A Natural Language-Based Multi-Agent System for Legal Research," *2001 Americas Conference on Information Systems, Boston*, MA, August 3 – 5, 2001, pp. 412 – 414.

- Sugumaran, V., Storey, V., "Creating and Managing Domain Ontologies for Database Design," *6th International Workshop on Applications of Natural Language for Information Systems*, Madrid – Spain, June 28-29, 2001, pp. 17 - 26.

- Park, S., Sugumaran, V., Lee, S., "An Architecture-Centric Approach for Multi-Agent System Development and Application," *Third International Workshop on Advanced Issues of E-Commerce and Web-based Information Systems*, San Jose, California, June 21-22, 2001, pp. 160 - 169.

- Sugumaran, V., Storey, V., "An Approach to Intelligent Query and Component Retrieval for Web-Based Repositories," *Proceedings of 21st Annual International Conference on Information Systems*, Brisbane, Australia, Dec. 2000, pp. 16 - 19.

- Sugumaran, V., Park, S., "A Knowledge-Based Agent Modeling and Design Environment," *Proceedings of AMCIS'2000*, Long Beach, CA, Aug. 2000, pp. 279 – 281.

- Sugumaran, V., Mobley, L., "Integrating Spatial Regression into Decision Support Systems," *Proceedings of AMCIS'2000*, Long Beach, CA, Aug. 2000, pp. 272 – 278.

- Sharma, S., Sugumaran, V., "Examination of Software Reuse in Information Systems Projects" *Proceedings of AMCIS'2000*, Long Beach, CA, Aug. 2000, pp. 500 – 502.

- Sugumaran, V., Tanniru, M., "Designing Support for Customers on the Web – A Methodology and Case Study" *Proceedings of AMCIS'2000*, Long Beach, CA, Aug. 2000, pp. 365 – 367.

- Park, S., Sugumaran, V., "An Agent Oriented Software Modeling Paradigm," *Annual Conference of the Information Resources Management Association*, May, 1999, Anchorage, Alaska, pp. 618 – 623.

- Sugumaran, V., Tanniru, M., Storey, V., "An Automated System for Artifact Reuse in Systems Analysis and Design," *Proceedings of the 9ᵗʰ Workshop on Information Technologies and Systems*, Dec. 11-12, 1999, Charlotte, NC, pp. 81-86.

- Sugumaran, V., Tanniru, M., Storey, V., "Identifying Software Components from Process Requirements Using Domain Model and Object Libraries," *Proceedings of the 20ᵗʰ Annual International Conference on Information Systems*, 1999, Charlotte, NC, pp. 65-81.

- Sugumaran, V., Arogyaswamy, B., "Models of Information Technology Deployment: The Link to Measures of Success," *Proceedings of the International Conference On Delivering Service Quality: Managerial Challenges for the 21ˢᵗ Century*, Ahmedabad, India, Dec. 28-29, 1999, pp. 473-482.

- Bhatt, G., Sugumaran, V., "Decision Support Systems and Learning Organizations," *Proceedings of the Decision Sciences Institute Annual Conference*, 1999, November 20-23, New Orleans, LA., pp. 469-471.

- Bhatt, G., Sugumaran, V., "A Case of Business Reengineering Failure: Looking for Traditional Management Philosophy," *Proceedings of the Fifth Americas Conference on Information Systems*, 1999, Milwaukee, WI, August 13-15, pp. 662-664.

- Sugumaran, V., "A Web Based Intelligent Interface to Geographic Information Systems Using Agent Technology," *Managing Information Technology Resources in Organizations in the Next Millennium*, Ed. Mehdi Khosrowpour, 1999, pp. 569 –575.

- Sugumaran, V., "Application of Intelligent Agent Technology in Geographic Information Systems," *Proceedings of Decision Sciences Institute Annual Conference*, 1998, November 21-24, Las Vegas, pp. 666 – 668.

- Bose, R., Sugumaran, V., "IDM: An Intelligent Software Agent Based Data Mining Environment," *Proceedings of IEEE International Conference on Systems, Man, and Cybernetics*, 1998, October 11-14, San Diego, CA, pp. 2888 – 2893.

- Sugumaran, V., "A Distributed Intelligent Agent-Based Spatial Decision Support System," *Proceedings of Association for Information Systems Americas Conference*, 1998, August 14-16, Baltimore, MD, pp. 403-405.

- Sugumaran, V., "An Intranet Based Intelligent Agent Approach to Organizational Process Modeling and Execution," *Proceedings of Decision Sciences Institute Annual Conference*, 1997, November 22-25, San Diego, pp. 509-511.

- Khambekar, P., Sugumaran, V., Tanniru, M., Storey, V., "Knowledge-Based Support for Systems Analysis Using Domain Models," *Proceedings of the 6th Workshop on Information Technologies and Systems*, 1996, Dec. 14-15, Cleveland, pp. 299-303.

- Sugumaran, V., "Enhancing an Image Database with Web Based Full-Text Search Engine," *Proceedings of Decision Sciences Institute Annual Conference*, 1996, November 23-26, Orlando, pp. 768-770.

- Sugumaran, V., "Interfacing Relational Databases with World Wide Web," *Proceedings of North East Decision Sciences Institute's Annual Conference*, 1996, April 17-19, St. Croix, pp. 316-318. (**Nominated for Best Paper Award**)

- Gomaa, H., Kerschberg, L., Sugumaran, V., Bosch, C., Tavakoli, I., "A Prototype Domain Modeling Environment for Reusable Software Architectures," *Proceedings of the International Conference on Software Reuse*, 1994, Rio de Janeiro, Nov.

- Sugumaran, V., "A Knowledge-Based Tool for System Development from Domain Models," *Proceedings of the Decision Sciences Institute's Annual Conference*, 1994, Honolulu, Hawaii, November 20-23, pp. 772-774.

- Gomaa, H., Kerschberg, L., Sugumaran, V., "A Knowledge-Based Approach to Generating Target System Specifications from a Domain Model," *Proceedings of International Federation of Information Processing World Congress,* 1992, Madrid, September, pp. 252-258.

- Gomaa, H., Kerschberg, L., Sugumaran, V., "Domain Modeling Concepts and Target System Specification Generation," *Proceedings of NASA/Goddard Conference on Space Applications of Artificial Intelligence*, 1992, May, pp. 181-194.

- Sugumaran, V., Gomaa, H., Kerschberg, L., "Generating Target System Specifications From A Domain Model Using CLIPS," *Proc. of Second Annual CLIPS Conference*, 1991, NASA/Johnson Space Center, Houston, September, pp. 209-226.

- Gomaa, H., Kerschberg, L., Bosch, C., Sugumaran, V., Tavakoli, I., "Towards A Software Engineering Environment for Domain Modeling and Reuse," *Proceedings of Fourth Annual Workshop on Software Reuse,* 1991, IEEE Computer Society, Reston, Virginia, November 18-22, pp. 1-6.

- Gomaa, H., Kerschberg, L., Bosch, C., Sugumaran, V., Tavakoli, I., "A Prototype Software Engineering Environment for Domain Modeling and Reuse," *Proceedings of the Sixteenth Annual Software Engineering Workshop*, 1991, NASA/Goddard Software Engineering Laboratory, December, pp. 255-263.

- Sugumaran, V., "Object Oriented Databases: Prototypes and Commercial Systems," *Proc. of the Workshop on Object-Oriented Methodologies For The Earth Sciences: A World of Objects,* U. S. Geological Survey, Reston, Virginia, January 1990.

- Skudryzk, F., Barker, J.C., Sugumaran, V., "Disintegration of Frozen Granular Materials Using High Pressure Water Jets," *Proceedings of the 5th International Cold Regions Engineering Specialty Conference*, St. Paul, Minnesota, February 6-8, 1989. pp. 320-334.

- Sugumaran, V., Skudryzk, F., "Application of Water Jets as an Underground Mining Method in Permafrost: An Alternative to Dredging," *Proceedings of the 8th Placer Mining Conference,* 1986, Fairbanks, Alaska, April.

SERVICE ACTIVITIES

Professional Services

Editor-in-Chief
- *International Journal of Intelligent Information Technologies (IJIIT)*

Program Co-Chair, Midwest Association for Information Systems Annual Conference, Oshkosh, WI, 2019.

Program Co-Chair, 24th International Conference on application of Natural Language to Information systems (NLDB 2019), Salford University, Manchester, England, June 26-28, 2019.

International Program Co-Chair, Australian Conference on Information Systems, Sydney, Australia, 2018.

Program Co-Chair, 5th IEEE International Conference on Big Data Service and Applications (BDS 2019).

Honorary Chair, 3rd International Conference on Intelligent Information Technologies (ICIIT 2018), Anna University, Chennai, India, December 11-14, 2018.

General Chair, 2nd International Conference on Intelligent Information Technologies (ICIIT 2017), Anna University, Chennai, India, December 20-22, 2017.

Program Co-Chair, Workshop on Big Data Research and Development in Knowledge Engineering, in conjunction with SEKE2017, Wyndham Pittsburgh University Center, Pittsburgh, USA, July 5 - July 7, 2017.

Poster and Prototype Demos Chair, Workshop on Information Technology and Systems, (WITS 2017), December 14-15, 2017, Seoul, South Korea.

Track Chair, Intelligent Agent and Multi-Agent Systems Track, Americas Conference on Information Systems, 2000 – 2021

Program Co-Chair, 21st International Conference on application of Natural Language to Information systems (NLDB 2016), Salford University, Manchester, England, June 22-24, 2016.

Program Co-Chair, 14th Workshop on e-Business (WeB 2015), Fort Worth, Texas, December 12, 2015.

Program Co-Chair, 18th International Conference on application of Natural Language to Information systems (NLDB 2013), Salford University, Manchester, England, June 2013.

Program Co-Chair, 13th International Conference on Applications of Natural Language to Information Systems (NLDB 2008), June 24 – 27, 2008, London, UK.

Workshop Co-Chair, International Workshop on Software and Services for IT Convergence (SSIC 2011, SSIC 2012), Jeju, South Korea, May 23, 2011, and July 16, 2012 respectively.

President, AIS Special Interest Group on Ontology Driven Intelligent Systems (SIGODIS), 2012-2015.

Vice President of AMCIS Events, AIS Special Interest Group on Agent-Based Info. Systems (SIGABIS), 2005 - present

Information Technology Feature Editor, Decision Line

ISWORLD, **DSS Research Website Co-Editor**

Editorial Review Board Member
- Journal of Electronic Commerce in Organizations

- Journal of Computer Information Systems
- Journal of International Technology and Information Management
- International Journal of Web Services Research
- Information Systems Management
- Journal of Database Management
- Information Systems Frontiers
- Data and Knowledge Engineering

Track Co-Chair, Service-Based Information Systems Track, Australasian Conference on Information Systems (ACIS), Sydney, Australia, 30th November - 2nd December, 2011.

Track Co-Chair, Information Technology Service Management, Service Computing and Engineering Track, Conf-IRM, June 12-14, 2011, Seoul, Korea.

Track Co-Chair, Service Science and Information Systems Track, 15th Pacific Asia Conference on Information Systems (PACIS 2011), Brisbane, Australia, July 9-11, 2011.

Tutorials/Workshops Co-Chair, Americas Conference on Information Systems (AMCIS 2011), Detroit, MI, August 4 -7, 2011.

IT Committee Chair, Decision Sciences Institute, 2007 – 2010

Track Chair, Intelligent Information Systems, IRMA 2001, 2002, 2005, 2006, 2007

Track Chair, Ecommerce Track, DSI Annual Meeting, Boston, MA, November 2004.

Poster/Demo Chair, Workshop on E-Business (WeB 2006, 2007)

Prototype Chair, Workshop on Information Systems and Technologies (WITS), 2007

Tutorials Co-Chair, International Conference on Conceptual Modeling, 2002.

VP for Web Management, Special Interest Group on E-Business, 2007 – 2010

SIGDSS, **Resources Chair**, 2002-2005

Program Committee Member:
- Associate Editor, International Conference on Information Systems (ICIS), 2001, 2005, 2006, 2009, 2011
- Workshop on E-Business (WeB), 2005 – 2009, 2015-2019
- International Workshop on Variability Modeling of Software-Intensive Systems (VAMOS), 2008 – 2009
- International Workshop on Conceptual Modeling Approaches for E-Business (ECOMO), 2009.
- International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE), 2009.
- International Conference on Adaptive Business Information Systems (ABIS), 2009.
- International Workshop on Dynamic Software Product Lines (DSPL), 2008–2009.
- International Conference on Enterprise Information Systems (ICEIS), 2005 – 2014
- Midwest AIS Conference, 2006, 2008
- IADIS International Conference on E-Society, 2003 – 2016

- International Conference on Applications of Natural Language to Information Systems (NLDB), 1999 – 2014
- International Workshop on Engineering Semantic Agent Systems (ESAS), 2006-2016.
- International Workshop on Experience Management and Engineering (EME), 2006
- International Conference on Innovations in Information Technology (IIT'05)
- IEEE International Conference on Web Services (ICES), 2004
- Agent Technology in Business Applications (ATeBA-04), 2004
- Workshop on Information Technologies and Systems (WITS) 2000, 2001, 2007
- International Conference on Conceptual Modeling (E-R), 2000, 2002, 2003, 2007, 2013.
- INFORMS Conference on Information Systems and Technology (CIST), 2001

Cluster Coordinator, Institute for Operations Research and Management Sciences Annual Conference, 1996, May 5-8, Washington D. C.

Session Chair, Institute for Operations Research and Management Sciences Annual Conference, 1996, May 5-8, Washington D. C.

Session Chair, Decision Sciences Institute's Annual Conference.

Discussant, Decision Sciences Institute's Annual Conference.

Discussant, North East Decision Sciences Institute's Annual Conference.

Ph.D Dissertation Committee Member

- Karthikeya Challa, School of Engineering and Computer Science, Oakland University
- Dingwang Wang, School of Engineering and Computer Science, Oakland University
- Zirun Qi, Georgia State University, Atlanta, USA.
- Melinda L. McDaniel, Georgia State University, Atlanta, USA.
- Stephen Russell, University of Maryland Baltimore County.
- Diana Tanase, University of Westminster, London, UK.

External Examiner for Ph.D Dissertation

- Preeti Tamrakar, Vellore Institute of Technology, India, 2020
- Lakshmi K.S., SRM Institute of Science and Technology, India, 2020
- Gokul Krishnan, National Institute of Technology Karnataka, India, 2020
- Kushal Saha, Indian Institute of Management, Calcutta, India, 2020
- Mahesh Balan, Indian Institute of Technology-Madras, India, 2019
- Sung Lee, University of New South Wales, Sydney, Australia, 2019
- Richard Rannard, University of New South Wales, Sydney, Australia, 2018
- Rajbabu, National Institute of Technology, Trichy, India, 2018
- Christeena Joseph, Saveetha University, Tamil Nadu, India, 2018
- N. Vivekananthamoorthy, Hindustan University, Tamil Nadu, India, 2017
- Deepak Dahiya, Indian Institute of Technology, Madras, India, 2017
- Amy Louise Affleck, Curtin University, Perth, Australia, 2016

- S. Pavithra, Anna University, Chennai, India, 2016
- E. Umamaheswari, Anna University, Chennai, India, 2014
- K. S. Kuppusamy, Pondicherry University, Pondicherry, India, 2013
- Aisha Banu, Anna University, Chennai, India, 2010
- Kafui Andre Monu, University of British Columbia, Vancouver, Canada, 2009
- Felix Leung, City University of Hong Kong, 2007
- Jordi Conesa, Technical University of Barcelona, Barcelona, Spain, 2006

National/International Reviewer for Funding Agencies

- United Kingdom-India Education and Research Initiative, 2016
- Fulbright Specialist Program, 2012 – 2014.
- Czech Science Foundation, Grant Proposal Evaluator, 2013
- Catalyst Grant Program, University of Wisconsin Milwaukee Research Foundation
- National Science Foundation, Career Award Panel, Division of Computing and Communication Foundation, 2007
- Fonds de Recherche sur la Nature et Technologies, Quebec, Canada, 2006.
- Transport Research Program, Department of Public Enterprise, Ireland, 2002.

External Reviewer for Tenure and Promotion Applications

- Department of Management Science and Information Systems, University of Massachusetts, Boston, 2020
- Department of Information Systems, College of Business, University of Nevada, Reno, 2019
- School of Computing, Science and Engineering, Salford University, Manchester, UK, 2018
- Department of Information Technology, College of Engineering and Computing, Georgia Southern University, P.O. Box 8150, Statesboro, GA 30460, 2018
- Department of IT and Decision Sciences, Old Dominion University, Norfolk, Virginia 23529, USA, 2017
- School of Business and Economics, Michigan Technological University, Houghton, MI 49931, USA, 2017
- Information Systems and Operations Management, Raj Soin College of Business, Wright State University, Dayton, OH, 2017
- College of Management, University of Massachusetts Boston, 2015
- Baruch College, The City University of New York, 2014
- Business School, University of Colorado at Denver and Health Sciences Center, 2013.
- School of Information Systems and Technology, University of Wollongong, Sydney, Australia, 2012
- Information Systems and Operations Management, Raj Soin College of Business, Wright State University, Dayton, OH, 2011
- Department of Information Systems, University of Maryland Baltimore County, Baltimore, 2007, 2010
- Department of Information Technology and Decision Sciences, Old Dominion University, Norfolk, Virginia, 2010

- Department of Management Science and Information Systems, University of Massachusetts, Boston, 2009
- Business School, University of Colorado at Denver and Health Sciences Center, 2007
- Baruch College, The City University of New York, 2007
- Villanova School of Business, Villanova University, 2006.
- CIS Department, Colorado State University, 2005
- College of Business Administration, Loyola Marymount University, 2004
- College of Commerce and Finance, Villanova University, 2002

Technical Reviewer

Journals
Information Systems Research
MIS Quarterly
IEEE Transactions on Data and Knowledge Engineering
IEEE Transactions on Engineering Management
IEEE Transactions on Systems Man and Cybernetics
Communications of the ACM
Journal of Organizational Computing and Electronic Commerce
Data and Knowledge Engineering
Decision Support Systems
Journal of Management Information Systems
Journal of Information Technology Theory and Application
Journal of Global Information Technology Management
INFORMS Journal on Computing
INFORMS Transactions on Education
International Journal of Human Computer Interactions
DataBase for Advances in Information Systems Journal
Information Systems Journal
Industrial Management and Data Systems
Journal of Electronic Commerce in Organizations
Journal of Information Systems and e-Business
Journal of International Technology and Information Management
Journal of Computer Information Systems
Journal of Database Management
Journal of Information Technology Management
IDEA Group Book Chapter Review
Heuristics: The Journal of Intelligent Technologies Journal

Conferences
IEEE International Conference on Web Services (ICES)
Agent Technology in Business Applications (ATeBA-04)
IADIS International Conference on E-Society
International Conference on Information Systems
Americas Conference on Information Systems (AMCIS)
Information Resources Management Association Annual Conference
Conceptual Modeling (ER Conference)

Decision Sciences Institute Annual Conference Proceedings
    Management Information Systems Track
    DSS/AI/Expert Systems Track
North East Decision Sciences Institute's Annual Conference Proceedings.
International Business School Computing Association Annual Conference Proceedings

Oakland University

Search Committee Member, Dean of Graduate Studies, 2019-2020.

Graduate Research Day Committee, 2015-2016.

Search Committee Member, Vice President for Research, 2015-2016.

Search Committee Member, Vice President for Research, 2011.

University Faculty Re-employment and Promotion Committee (FRPC) 2008 – 2011

Member of Academic Computing Committee (University Senate Committee) 2006–2008

Chair of the Foundation of Excellence subcommittee on Diversity (2005 – 2008)

Member of the Foundation of Excellence Task Force (2005 – 2008)

Member of search committee for the AVP for E-Learning and Instructional Support position (Fall 2003)

Chair of Teaching and Learning Senate Committee (2003 – 2004), member (2002 – 2003)

Academic Honors and Standings Senate Committee (2000 – 2002)

Faculty Adviser for Indian Student Association (2000 – 2002)

School of Business Administration

Executive MBA Review Committee, 2015

SBA Building Committee, 2015

SBA Distinguished Service Award Committee (2009 – 2011)

SBA Computer Advising Committee (2007 – 2009)

Co-organizer, SBA Research Seminar and Workshop Series, 2005 – 2008.

Chair of the SBA Undergraduate Curriculum Committee (UCC) – (2002 – 2003), member (2001 – 2002)

Chair of the SBA Committee on Instruction (COI) – (2002 – 2003), member (2001-2002)

AACSB Accreditation Committee – Instructional Resources

Decision and Information Sciences Department

Search Committee Chair, Assistant Professor of MIS, 2020

Search Committee Member, Special Instructor position for QMM, 2019

Search Committee Chair, Assistant Professor of MIS, 2018

Search Committee Chair, Assistant Professor of Business Analytics, 2017

Search Committee Member, Assistant Professor of Operations Management, 2017

Undergraduate Curriculum Review Committee, 2015

MIS Minor Coordinator, 2014 - 2015

MIS Curriculum Review Committee, 2013

Search Committee Member, Special Instructor position

Capstone Course Advisor

Member of DIS Department Undergraduate Curriculum Committee

Member of DIS Department Graduate Curriculum Committee

Course coordinator for MIS 304

Member of MIS Faculty Search Committee

PROFESSIONAL ORGANIZATIONS

Member of Association for Information Systems
Member of Association for Computing Machinery