ARUN SEN

PERSONAL DATA

Home Address: 9269 Brookwater Circle

College Station, Texas 77845

(979) 693-7305

Email (home): arunsen.tx@gmail.com

Office Address: Department of Information and Operations Management

Mays Business School Texas A & M University College Station, Texas 77843 Voice Mail: (979) 845-8370

Fax: (979) 845-5653

Email (work): arun-sen@tamu.edu and asen@mays.tamu.edu

Martial Status: Married, one son

Health: Excellent

EDUCATION

1. B.S. (Honors) in Physics from Bhagalpur University (India), 1968.

- 2. M.Tech. in Electronics from the Institute of Radio Physics and Electronics, Calcutta University (India), 1971.
- 3. M.S. in Computer Science from Department of Computer Science, Penn State University, 1976.
- 4. Ph.D. in Business Administration (specializing in Information Systems) with minors in Finance and Computer Science from the Department of Management Science, Pennsylvania State University, 1979. Dissertation title was *On the Theory of Logical Database Design for a Decision Support System*.

HONORS AND AWARDS

- 1. Was awarded the *University Gold Medal* for standing First in the B.S. (Honors) Examination.
- July 1965- September 1968: National Merit Scholarship (Awarded by the Ministry of Education, Govt. of India).
- 3. October 1968- December 1971: *National Merit Scholarship* (Awarded by the University Grants Commission, India).
- 4. January 1972- November 1973: *All India Research Fellowship* (Awarded by the Council of Scientific and Industrial Research CSIR, India).
- 5. March 1974- December 1975: **Teaching Assistant** (Awarded by the Department of Computer Science, Penn State University).
- 6. March 1976- August 1976: **Teaching Assistant** (Awarded by the Department of Management Science, Penn State University).

- 7. September 1976- August 1979: **Chief Programmer**, AMIS Project for the Commonwealth of Pennsylvania, Penn State University.
- 8. Was awarded an *Honorable Mention* in the 1980 DSI Dissertation Competition for my dissertation entitled *On the Theory of Logical Database Design for a Decision Support System*.
- 9. Received a *Best Paper Award* in 1983 Southeastern DSI Conference.
- 10. Received the *Best Paper Award* in 1992 Hawaii International Conference on Systems Sciences (HICSS-25) in the Decision Support Systems Track.
- 11. Received Business Analysis Research Fellowship, Texas A&M University, 1997-1999.
- 12. Received the *Mays Business School Best Researcher Award*, Texas A&M University, 1997-1998.
- 13. Received the *Mays Research Fellowship* from Mays Business School, 2002-2006.
- 14. Invited to participate in the *NSF Review Panel*, 2007.
- 15. Finalist, Best Paper Award in Healthcare Operations Management in Production and Operations Management Society's 27th Conference, May 6-9 2016, Orlando, Florida.

EMPLOYMENT HISTORY

August 1979- July 1985: Assistant Professor of Management Science, University of South

Carolina (USC).

July 1985- July 1986: Associate Professor (Tenured) of Mgmt. Science., University of South

Carolina (USC).

Faculty Associate, Institute of Information Management, Technology, and Policy, College of Bus. Administration, Univ. of South Carolina.

Research Associate, Center for Machine Intelligence, College of

Engineering, University of South Carolina.

July 1986- July 1998: Associate Professor (Tenured) of Business Analysis and Research,

Texas A&M University (TAMU).

August 1997-August 1999: Endowed Business Analysis Research Fellow, Texas A&M University.

From August 1998- current: Professor (Tenured) of Information and Operations Management,

Texas A&M University (TAMU).

Sept 2002 – Sept 2006 Mays Research Fellow, Mays Business School, Texas A&M

University.

TEACHING INTERESTS

- E-Commerce Courses -- Evolving Technologies in E-Commerce
- **Data Analytics** -- Data Warehousing, Business Intelligence, Predictive Analytics, Data Visualization, Data Curation, and Big Data
- Customer Relationship Management -- Customer Relationship Management

- Enterprise Development -- Object-Oriented Applications, OO analysis and Design, and Object-oriented languages, Database Management Systems, Systems Analysis and Design, and Design of Components
- Decision Support Systems and Knowledge Management System
- Healthcare Operations and Analytics

COURSES TAUGHT

• In University of South Carolina (9 NEW Preps from 1979-1986)

Data Processing	BA 190	Undergraduate Course	(USC)
Mgmt Information Sys	BA 390	Undergraduate Course	(USC)
Systems Analysis	BA 490	Undergraduate Course	(USC)
Database Systems	BA 596	Undergraduate Course	(USC)
Information Systems	BA 796	MBA Course	(USC)
File Management and Data Structures	BA 889	Graduate Course	(USC)
Distributed Processing	BA 890	Graduate Course	(USC)
Advanced Data Base	BA 891	Graduate Course	(USC)
Decision Support Systems	BA 896	Graduate Course	(USC)

• In Texas A&M University (18 NEW Preps from 1986-2007)

• In Texas A&M University (18 NEW Preps from 1986-2007)				
INFO 217/207	Undergraduate Course	(TAMU)		
INFO 317	Undergraduate Course	(TAMU)		
INFO 318	Undergraduate Course	(TAMU)		
INFO 328	Undergraduate Course	(TAMU)		
INFO 329	Undergraduate Course	(TAMU)		
INFO 427	Undergraduate Course	(TAMU)		
INFO 607	MBA Course	(TAMU)		
INFO 620	Graduate Course	(TAMU)		
INFO 628	Graduate Course	(TAMU)		
INFO 631	Graduate Course	(TAMU)		
INFO 636	Graduate Course	(TAMU)		
INFO 637	Graduate Course	(TAMU)		
INFO 642	Graduate Course	(TAMU)		
INFO 645	Graduate Course	(TAMU)		
INFO 650	Graduate Course	(TAMU)		
INFO 688	Graduate Course	(TAMU)		
INFO 688	Graduate Course	(TAMU)		
INFO 688	Graduate Course	(TAMU)		
INFO 689	Graduate Course	(TAMU)		
INFO 689	Graduate Course	(TAMU)		
	INFO 217/207 INFO 317 INFO 318 INFO 328 INFO 329 INFO 427 INFO 607 INFO 620 INFO 628 INFO 631 INFO 636 INFO 637 INFO 642 INFO 645 INFO 645 INFO 688 INFO 688 INFO 688 INFO 688	INFO 217/207 Undergraduate Course INFO 317 Undergraduate Course INFO 318 Undergraduate Course INFO 328 Undergraduate Course INFO 329 Undergraduate Course INFO 427 Undergraduate Course INFO 620 Graduate Course INFO 620 Graduate Course INFO 631 Graduate Course INFO 631 Graduate Course INFO 637 Graduate Course INFO 642 Graduate Course INFO 642 Graduate Course INFO 645 Graduate Course INFO 645 Graduate Course INFO 650 Graduate Course INFO 688 Graduate Course INFO 689 Graduate Course		

<u>I taught nine new preparations in University of South Carolina, of which two were new course preparations.</u> My average teaching evaluation scores from the seven year in University of South Carolina is around 3.32 in a scale of 1 to 5, 1 being worst teacher and 5 being the best teacher. In Texas A&M University, my average score is around 3.9 for the same scale.

LEADERSHIP ROLES

(A) In Program Development

1. Helped design the *IS Graduate Program* in the Management Science department, Univ. of South Carolina. Several M.S. and Ph.D. students specializing in MIS have graduated.

- 2. Developed and improved several MIS courses in Univ. of South Carolina. They are: BA 390, BA 490, BA 596, BA 889, BA 890, BA 891, and BA 896. I have also developed courses in TAMU which includes BANA 636, INFO 631 (Component-based Systems Analysis and Design) and three INFO 689's (Special Topics on Distributed Processing Systems, Advanced Database Systems and Object Orientation).
- 3. Helped launch a *Ph.D. Colloquium Series* in University of South Carolina and Texas A&M University.
- 4. Redesigned and modernized the *Undergraduate Curriculum in Information Systems* in Department of Information and Operations Management, Texas A&M University, 1999-2000. The current catalog reflects these changes.
- 5. Redesigned and modernized the *Graduate Programs* (Masters and Ph.D.) in Information Systems for the Department of Information and Operations Management, Texas A&M University, 2002-2006.
- 6. Introduced many <u>new</u> courses like Data Warehousing (ISYS 637) for regular MS students, for Online MS students, and for MS Analytics students; Customer Relationship Management Technologies (ISYS 652); E-Commerce Technologies (INFO 640); Data Mining (ISYS 650); Component Design (INFO 631); and many others. <u>Current set of courses at the graduate level in the catalog reflects this redesign</u>.
- 7. Chaired a Mays Business School Task Force and developed a comprehensive plan to build a Graduate Program in Analytics in Mays Business School.

(B) In Chairing Ph.D. Theses

- 1. Served as a thesis chairman of a Ph.D. Dissertation titled *File Allocation Strategies in Large Network* (Yoon Chung, completed in Summer, 1984; currently in a South Korean University) in Univ. of South Carolina.
- 2. Served as a thesis co-chairman of a Ph.D. Dissertation titled *Data Allocation Strategies in Large Network* (Rathin Sarathy, completed in Summer, 1990; currently Tenured Professor and Ardmore Professor of Business Administration at Oklahoma State University) in Texas A&M University.
- 3. Served as a thesis chairman of a Ph.D. Dissertation titled *NEXUS: A Kernel Complex Object Management System* (Santosh Venkatraman, completed in Spring, 1991; currently Tenured Professor and Department Head at <u>Tennessee State University</u>) in Texas A&M University.
- 4. Served as a thesis co-chairman of a Ph.D. Dissertation titled *AEROBA: A Control Blackboard for Model Formulation* (Shue T. Feng, completed in Spring, 1992; currently in National ChenChi University, Taiwan) in Texas A&M University.
- 5. Served as a thesis co-chairman of a Ph.D. Dissertation in *Opportunistic Case Based Reasoning in Model Formulation* (Ravi Vellore, completed in Summer, 1992; deceased) in Texas A&M University.
- 6. Served as a co-chair of a Ph.D. Dissertation in *Knowledge Base Support in Dynamic Real-time Scheduling in a Large Hospital* (Anandhi Bhardwaj, completed in Summer 1993; currently Professor at Emory University) in Texas A&M University.

7. Served as a thesis chairman of a Ph.D Dissertation in *Case Based Management System in Model Formulation* (Radha Mahapatra, completed in Summer, 1994; currently Professor at University of Texas at Arlington) in Texas A&M University.

(C) In Graduate Program Advising

- 1. Served as a Graduate Program Advisor managing Information Systems and SCM doctoral programs 2002-2006. Managed 10 Ph.D. students in the program.
- 2. Served as a Graduate Program Advisor managing a very successful Masters Program in Information Systems 2002-2006. Managed about 150 Masters students in the program.

(D) In Research Grants and Fellowships

- 1. Was awarded a travel grant by the *ER Institute* to attend the 2nd International Conference on ER Approach, 1981 (\$100).
- 2. Was awarded a summer grant by the *Institute of Information Management, Technology* and *Policy* to assess the feasibility of Information Locator System for the State Government of South Carolina, 1983 (\$4800).
- 3. Was awarded a research fellowship by the *Division of Research* of the College of Business (USC) to do a project on the use of expert systems techniques in designing a decision support system, Fall 1984 (\$17,000).
- 4. Worked in the *IBM Grants Project* for USC. Helped in getting the Preliminary Grant from IBM, 1985 (\$40,000).
- 5. Was awarded an equipment grant from the *Division of Research* of the College of Business, USC, 1986 (\$200).
- 6. Co-Principal Investigator, "An Intelligent Database Management System," awarded by the Excellence in Research Program, Texas A&M University, 1987 (\$45,000).
- 7. Co-Principal Investigator, "Data Modeling in Engineering Database," awarded by the Excellence in Research Program, Texas A&M University, 1987 (\$36,360).
- 8. Co-Principal Investigator, Equipment grant to purchase a SUN 3/160 workstation to support the Intelligent Database Research from the Excellence in Research Program, Texas A&M University, 1987 (\$30,000).
- 9. Co-Principal Investigator, "Internal Audit Evaluation in Bank Management: An Expert System Approach," awarded by the Herbert V. Prochnow Educational Foundation, Madison, Wisconsin, 1988 (\$13,000).
- 10. Co-Principal Investigator, Equipment grant (Explorer II LX with needed software) from Texas Instruments, Inc., 1988-91 (\$80,000).
- 11. Co-Principal Investigator, Matching Equipment Grant, TEES, 1991 (\$3200).
- 12. Received a College of Business Administration grant for Summer Support, 1991, 2002, 2008.
- 13. Received Summer support from the Department of Business Analysis, 1992, 1993, and 1996.

- 14. Received Faculty Development Leave from Mays Business School, Texas A&M University, January-May 1995, September- December, 2004 and September- December 2010 and August- December 2017.
- 15. Received a Software Grant from Rational Rose for teaching Graduate Information Systems courses, 2001-2006.
- 16. Invited to participate in the **NSF Review Panel**, 2007.
- 17. Received a software grant from Microsoft for MS Dynamics CRM 2011 tool (Enterprise Version), 2008 current.
- 18. Received a grant as a Co-PI from the Office of National Coordinator (ONC) in the Department of Health and Human Service (HHS) to develop a Regional Extension Center for the Central and Eastern regions of Texas (called CentrEast REC) that will help primary care physicians to adopt healthcare IT systems. The project activities span from outreach and education to IT research including data warehousing, data analytics and reporting, portal design and process analysis. The grant is for five years (2010-2015) with cost sharing between TAMUS and Department of HHS http://healthit.hhs.gov/portal/server.pt?open=512&mode=2&objID=3519). (\$6,404,775)
- 19. Received a supplemental grant as a Co-PI to the Office of National Coordinator (ONC) in the Department of Health and Human Service (HHS) to include critical care and rural hospitals into the newly formed Regional Extension Center for the Central and Eastern regions of Texas (called CentrEast REC). This will help critical care and rural hospitals to adopt healthcare IT systems. The project activities span from outreach and education to IT research including data warehousing, data analytics and reporting, portal design and process analysis. The grant is for five years (2010-2015) with cost sharing between TAMUS and Department of HHS. (http://www.hhs.gov/news/press/2010pres/09/20100910a.html). (\$384,000)
- 20. Received a second supplemental grant as a Co-PI to the Office of National Coordinator (ONC) in the Department of Health and Human Service (HHS) to include critical care and rural hospitals into the newly formed Regional Extension Center for the Central and Eastern regions of Texas (called CentrEast REC). The grant is for five years (2010-2015) with cost sharing between TAMUS and Department of HHS. (http://www.hhs.gov/news/press/rec_awards_02082011.html). (\$192,000)
- 21. Received a seed grant as a PI (with Dr. Aniruddha Dutta from College of Engineering and Nancy Dicky from College of Medicine) from TEES and TAMU University Division of Research. The award was given as a part of TAMU's push toward Big Data. The title of our proposal was "Personalized Risk Assessment through Genomic and Clinical Data Integration: A Big Data Approach." (\$43,200)
- 22. Received a summer grant from Mays Dean's Office as a PI in 2017. The title of my research was "Predicting Hospital Readmission Probability with Patient-level and Hospital-level data." (\$15000)
- 23. Received a summer grant from Mays Deans Office as a Co-PI (with Dr. Anupam Agrawal, Mays Business School) in 2018. The title of our research proposal was "Effect of care coordination on emergency department visits." (\$14,800)
- 24. Received summer supports from Mays Deans Office in 2020, 2021, and 2022.

(E) In Corporate Connections

- 1. Received the Teradata Software Grant from Teradata Group of NCR for teaching E-Commerce/Data Warehousing courses in 2001 (\$160,000).
- 2. Received a Teradata Maintenance Grant from Teradata Group of NCR in 2001-2002 (with Evan Anderson) for teaching E-Commerce courses (\$19,000).
- 3. Member of the Board of National Teradata (NCR) University Network, 2001 2003.
- 4. Received a Summer Support/Consulting from the NCR Corporation to study the problems facing Travelocity.com, Summer 2001.
- 5. Managed a bi-annual industry workshop called **A&M Data Warehousing and Data Mining Workshop** (http://iops.tamu.edu/dwdm-workshop/index.htm) 2002-2007. I have been doing several joint research projects with this group such as Data Warehousing Process Maturity project, E-Metrics project and Web Mining project.
- 6. Consulted with Southeast Texas Health System (SeTHS) to develop a plan for their Clinical Data Warehouse.
- 7. Worked in a project entitled "Process-based for Patient Centered Medical Home Phase 1: Development of PCMH Domain Ontology," jointly with National Committee on Quality Assurance, Washington DC 2013-2016.
- 8. Working in a project entitled "Process-based for Patient Centered Medical Home: Phase 2: Development of PCMH Task Ontology," jointly with National Committee on Quality Assurance, Washington DC 2017-2019.

(F) In National Professional Office

- Vice-Chair, TIMS College of Information Systems (DSS) 1991-1992.
- 2. Member, Search Committee for Editor-in-Chief in **Information Systems Research** (**ISR**), an INFORMS journal in Information Systems, 1991-1992.
- 3. Member, Sub-committee to provide future directions for the ISR journal, 1991-1992.
- 4. Vice-Chair, **INFORMS College of Information Systems (INFORMS)**, 1993-1995.
- 5. Chair, **INFORMS College on Information Systems**, 1995-1997.

(G) Outside Recognition

 Interviewed by a news reporter from the Telegraph in Kolkata, India about Telemedicine Prospects in India on December 23, 2017. (See https://www.telegraphindia.com/calcutta/docspeak-on-hepatitis-cure-195881)

RESEARCH INTERESTS

• Database Management Systems

Semantic Databases, Deductive DBMS, Extensible Databases, Object-Oriented DBMS, Data Base and Operations Research Modeling, Data Base and EDP Auditing, Enterprise Modeling, and Nested Relations

• Decision Support Systems

DSS Design Framework, Model Management Systems, Model Formulation Systems, Blackboard

Systems, Case-Based Reasoning, Business Expert Systems, and Expert Systems in Operations Analysis

• Data Analytics

Design and Analysis of Data Warehouse, Data Warehouse Model Formalism, Metadata Warehouse/Metadata Management, Data Warehouse Change Management, Data Mining, Web Mining, Web Analytics, and Big Data

• Customer Relationship Management and Marketing Analytics

Customer Relationship Management, CRM Metrics Ontology, CRM strategy and value creation

• HealthCare and Genomics

HIE development, EHR Adoption/Diffusion/Optimization, Care delivery operations (Patient Centered Medical Home and Accountable Care Organization), Care Coordination, Care Transition, Meaningful use, Clinical Data Warehouse (CDW), Clinical DSS, Online Review, Payment Modeling, Healthcare Analytics and Genomic CDS.

COMPUTER LANGUAGE PROFICIENCY

Visual BASIC, C/C++, Expert Systems Languages (CLIPS, PROLOG, JESS and LISP), Ontology Languages (Protégé) Database Systems (ORACLE, SQL Server and Teradata), Object-oriented Languages (Java, JavaBeans, JavaScript and C++), Blackboard Systems (GBB-UMass) and others.

HARDWARE EXPERIENCES

Has worked on SUN, Windows, DOS and Linux environments.

MS Committee CHAIRS

- 1. Served as a thesis chairman of four M.S. theses in MIS in USC:
 - (a) Designing Relational Database Design Consultant in PROLOG,
 - (b) Database Translation in a Heterogeneous Database Environment,
 - (c) A Study of Internal Control in Data Base Design, and
 - (d) A Study of Organizational Internal Control for Database Management Systems and Auditing.
- 2. Served as a Chair in the committee of Ferdinand Chew (MBA), Kyung Youn (MS-MIS), Pedro Chacin (MBA), Belinda Hale (MBA) and several others in TAMU.
- 3. Served on many other MS Committees as a Chair.

Ph.D. /MS COMMITTEE MEMBERS

- 1. Served as a member in the committee of Mark Riley (MS-MIS), V. Rajan (MS-CPSC), Teresa Michaelson (MS-Accounting), Tom Neal (MS-MIS), Laurie Teston (MS-MIS), Dennis Pollard (MS-MIS), S. Bommannan (MS-CPSC), Randall Hoppe (MBA), L. Blanco (MS-MIS), V. Nakkala (MS-CPSC), and B. Sambalingamooorthy (MS-CPSC) in TAMU.
- 2. Served as a Graduate Committee Representative of Lydia Andrade (Ph.D- Poly Science), Christos Makrigeorgis (Ph.D IE), and Michelle Hart (Ph.D. Educational Psychology) in TAMU.
- 3. Serving as a member in the committee of Peter Man (MS-CPSC), S. Jaishankar (MS-CPSC), John McDermott (MBA), and P. S. Narayan (MS-CPSC) in TAMU.
- 4. I have served as a Graduate Advisor (Ph.D. Advisor) 2002-2006.

PAPERS AND PUBLICATIONS

Refereed Journal Articles (Total number of journal publications is <u>64</u>. The author names appear in exact order)

Artificial Intelligence (18 journal papers)

- 1. "Decision support systems: An expert systems approach," (A. Sen and G. Biswas), **Journal of Decision Support Systems**, Vol. 1, 1985, pp. 197- 204.
- 2. "An expert decision support system for production control," (G. Biswas, M. Oliff and A. Sen), **Journal of Decision Support Systems**, 4, 1988, pp. 235-248.
- 3. "Expert assistance for the decision support process using hierarchical planning," (A. Vinze and A. Sen), **IEEE Transaction on Systems, Man and Cybernetics**, Vol. 21, No. 2, March/April 1991, pp. 390-401.
- "An expert systems assistance to internal audit department evaluation," (A. Sen and Wanda Wallace), International Journal of Expert Systems with Applications, Vol. 3, 1991, pp. 51-66.
- "Construction of a model formulation consultant: The AEROBA experience," (A. Sen, A. Vinze and S. F. T. Liou), IEEE Transaction on Systems, Man and Cybernetics, Vol. 22, No. 5, Sept/Oct 1992, pp.1220-1232.
- "Epistemological aspects of objects," (S. Venkatraman and A. Sen), IEEE Transaction on Systems, Man and Cybernetics, Vol. 22, No. 2, March/April 1992, pp.351-359.
- "Modeler: Incorporating experiences to support model formulation A case-based planning approach," (R. Vellore, A. Vinze, and A. Sen), Expert Systems with Applications, Vol 6, 1993, pp. 37-56.
- 8. "Use of reason maintenance in model formulation systems," (A. Bharadwaj, A. Sen and A. Vinze), **Omega**, Vol. 21, No. 1, 1993, pp. 123-133.
- 9. "AEROBA: A blackboard approach to model formulation," (A. Vinze, A. Sen and S. F. T. Feng), **JMIS** (**Journal of MIS**), Vol. 9, No. 3, Winter 1992-93, pp. 123-143.
- 10. "Operationalizing the opportunistic behavior in model formulation," (A. Vinze, A. Sen and S. F. T. Liou), **International Journal of Man-Machine Studies**, Vol 38, 1993, pp 509-540.
- 11. "Blackboard architecture for reactive scheduling," (A. Bharadwaj, A. Vinze and A. Sen), **Expert Systems with Applications**, Vol. 7, 1, 1994, pp. 55-65.
- 12. "The role of control in the process of model formulation," (A. Sen, A. Vinze and S. F. T. Liou), **Information Systems Research**, Vol. 5, 3, September 1994, pp. 219-248.
- 13. "Case base management systems: Providing database support to case-base reasoners," (R. Mahapatra and A. Sen), **Journal of Database Management**, Vol. 5, 2, Spring 1994.
- 14. "Use of cognitive process modeling in knowledge base systems integration," (R. Vellore, A. Sen, and A. Vinze), **Journal of Decision Support Systems**, 16, 1996, pp. 359-392.
- 15. "Understanding the complexity of model formulation process: A protocol analytic approach," (Arun Sen and Ajay Vinze), **Decision Sciences**, Vol. 28, No. 2, Spring 1997, pp. 443-473.
- 16. "The role of opportunism in the software design reuse process," (Arun Sen) **IEEE Transaction on Software Engineering**, 23, 7, July 1997, pp. 418-436.
- 17. "Implementation of personalization engine for an E-Commerce site using open source architecture," (A. Sen, Yingying Chen and Bo Zhang) **Journal of Organizational Computing and Electronic Commerce**, 18, 3, July-September 2008, pp. 224-253.
- 18. "Predicting the Helpfulness of Online Reviews using a Scripts-enriched Text Regression Model," (Thomas L. Ngo-Ye, Atish P. Sinha and Arun Sen), **Expert Systems with Applications**, 71, 1 April 2017, Pages 98–110.

Business Intelligence (10 journal papers)

 "Knowledge representation of a data base by a semantic network," (P. De and A. Sen), International Journal of Policy Analysis and Information Systems, Vol. 6, No. 1, 1982, pp. 25-45.

- "Deductive data modeling: A new trend in database management for decision support systems," (A. Sen and J. Choobineh), Journal of Decision Support Systems, 6, 1990, pp. 45-57.
- 3. "Industrial-strength data warehousing," (Arun Sen and Varghese Jacob), Communications of the ACM, September 1998, pp. 28-31.
- 4. "Metadata management: Past, present and future" (Arun Sen), **Journal of Decision Support Systems**, 37, 2004, pp. 151-173.
- 5. "A Comparison of Data Warehousing Methodologies," (Arun Sen and Atish Sinha), **Communications of the ACM,** March 2005, Vol. 8, No. 3, pp. 79-84.
- 6. "Data Warehousing Process Maturity: An Exploratory Study of Factors Influencing User Perceptions," (Arun Sen, Atish P. Sinha, and K. Ramamurthy) **IEEE Transactions on Engineering Management**, 53, 3, August 2006, pp. 440-455.
- 7. "Toward Developing Data Warehousing Process Standards: An Ontology-Based Review of Existing Methodologies," (Arun Sen and Atish P. Sinha) **IEEE Transactions on Systems, Man and Cybernetics Part C,** 37, 1, January 2007.
- 8. "Data Warehousing Infusion and Organizational Effectiveness," (K. Ramamurthy, Arun Sen and Atish P. Sinha) **IEEE Transactions on Systems, Man and Cybernetics Part A**, 38, 4, July 2008, pp. 976-994.
- 9. "An empirical investigation of the key determinants of data warehouse adoption," (K. Ramamurthy, Arun Sen and Atish P. Sinha) **Journal of Decision Support Systems,** 44. 2008, pp. 817-841.
- 10. "A Model of Data Warehousing Process Maturity," (Arun Sen, K. Ramamurthy, and Atish P. Sinha) **IEEE Transactions on Software Engineering**, 38, 2, March/April 2012, pp. 336-353.

Analytics (10 journal papers)

- 1. "A heuristic approximation for reducing problem size in network file allocation models," (T. Rakes, L. Franz and A. Sen), **Computers and OR**, Vol. 11, No. 4, 1984, pp. 387-395.
- 2. "The evolution of a distributed processing network," (L. Franz, A. Sen and T. Rakes), **Information and Management**, Vol. 7, 1984, pp. 263-272.
- 3. "Network cost analysis for planning configuration change in distributed systems," (A. Sen, T. Rakes and L. Franz), **Journal of Information Science**, Vol. 13, 1987, pp. 235- 246.
- 4. "A simulation analysis of an updated version of the assigned-slot listen-before-transmission protocol," (Saud A. Al-Shammari, T. R. Rakes and A. Sen), **Simulation**, 50, 3, 1988, pp. 101-111.
- 5. "The K-coverage concentrator location problem," (B. Shetty, R. Sarathy, and A. Sen), **Applied Mathematical Modelling**, Vol 16, February 1992, pp. 94-100.
- 6. "Current trends in web data analysis," (A. Sen, P. Dacin and C. Pattichis) Communications of the ACM, 49, 11, November 2006, pp. 85-91.
- "IT Alignment Strategies for Customer Relationship Management," (Arun Sen and Atish P. Sinha) in Journal of Decision Support Systems, Volume 51, Issue 3, June, 2011, pp. 609-619.
- 8. "Providing a Window of Opportunity for Converting eStore Visitors," (Amit Bhatnagar, Atish P. Sinha and Arun Sen), **Lead Article Information Systems Research**, 28, 1, March 2017, pp. 22-32.
- 9. "Role of Navigational Ability in Website Visit Duration" (Amit Bhatnagar, Arun Sen and Atish P. Sinha) **European Journal of Marketing**, Vol. 53 Issue: 5, pp.972-988, May 2019.
- 10. "Customer-Initiated and Firm-Initiated Online Shopping Visits under Competition for Attention: A Conceptual Model and Empirical Analysis," (Amit Bhatnagar, Prabuddha De, Arun Sen, and Atish P. Sinha), **Decision Support Systems**,163, December 2022.

Healthcare & Genomics (9 journal papers)

- "Scheduling cardiac procedures: A Knowledge based approach," (Anandhi Bhardwaj, Ajay Vinze and Arun Sen), IEEE Transaction on Engineering Management, Vol. 46, No. 3, 1999, pp. 322-334.
- "Clinical decision support: Converging toward an integrated architecture," (Arun Sen, Amarnath Banerjee, Atish P. Sinha and Manish Bansal) Journal of Biomedical Informatics, 45, 2012, pp. 1009-1017.
- 3. "An Ontological Model of the Practice Transformation Process," (Arun Sen and Atish P. Sinha), **Journal of Biomedical Informatics**, 61, June 2016, pp. 298-318.
- 4. "Sustainability of Healthcare Information Exchanges: A Game-Theoretic Approach," (Emre Demirezen, Subodha Kumar, and Arun Sen), **Information Systems Research**, 27, 2, June 2016, pp. 240-258.
- 5. "Understanding the Bioinformatics Challenges of Integrating Genomics into Healthcare," (Ahmad Al Kawam, Arun Sen, Aniruddha Datta and Nancy Dickey), **IEEE Journal of Biomedical and Health Informatics**, 22, 5, pp. 1672-1683, 2018.
- "Emergence of DSS efforts in genomics: Past contributions and challenges" (Arun Sen, Ahmad Al Kawam and Aniruddha Datta), **Decision Support Systems**, Volume 116, January 2019, Pages 77-90.
- 7. "Sustainability Planning for Healthcare Information Exchanges with Supplier Discount Program," (T. Rajapakshe, S. Kumar, A. Sen, and C. Sriskandarajah), **Operations Research** 68(3), May 2020, pp.793-817.
- 8. "Impact of the Hospital Readmission Reduction Program (HRRP) on Hospital Readmission and Mortality: An Economic Analysis," (Liangfei Qiu, Subodha Kumar, Arun Sen, and Atish P. Sinha), **Production and Operations Management**, Vol. 31, May 2022; pp. 2341–2360.
- 9. "Putting Analytics into Action in Care Coordination Research: Emerging Issues and Potential Solutions (Liangfei Qiu, Subodha Kumar, Arun Sen, and Atish P. Sinha), **Production and Operations Management**, Vol. 31, 2022, pp. 2714–2738.

Decision Support Systems & Databases (13 journal papers)

- 1. "Logical data base design in decision support systems," (P. De and A. Sen), **Journal of Systems Management**, Vol. 32, No. 5, May 1981, pp. 28-33.
- 2. "A new model for data base abstraction," (P.De, A. Sen and E. Gudes), **Information Systems**, Vol. 7, No. 1, 1982, pp. 1-12.
- 3. "Formalizing users' view modeling in a data base using semantic nets," (P. De and A. Sen), **Journal of Information Science**, Vol. 4, 1982, pp. 19- 31.
- 4. "Logical data base design: A management-oriented approach," (A. Sen) **Information and Management**, Vol. 5, 1982, pp. 77-85.
- 5. "Decision support systems: An activity-oriented design," (A. Sen) **Journal of Information Science**, Vol. 7, 1983, pp. 23-30.
- 6. "A new methodology for database requirement analysis," (P. De and A. Sen), **MIS Quarterly**, Vol. 8, No. 3, Sept 1984, pp. 179- 194.
- 7. "Schema translation: A three-level semantic abstraction approach," (A. Sen and C. Ching), **Information Systems**, Vol. 11, No. 3, 1986, pp. 255 -270.
- 8. "Enterprise modeling for database specification and design," (A. Sen and L. Kerschberg), **Data and Knowledge Engineering**, Vol. 2, 1987, pp. 31 58.
- 9. "Semantic modeling of internal controls in database design," (P. De and A. Sen), **JMIS** (**Journal of MIS**), 5, 2, Fall 1988, pp. 39-56.
- 10. "Effect of internal controls in data base design," (Ed Doty, A. Sen and S. C. Wang), **Journal of Information Systems**, 3, 2, Spring 1989, pp. 70-91.
- 11. "Formalization of an IS-A based extended nested relation data model," (S. Venkatraman and A. Sen), **Information Systems**, Vol. 20, No. 1, 1995, pp. 53-72.
- 12. "A constrained nonlinear 0-1 program for data allocation," (R. Sarathy, B. Shetty and A. Sen) in **European Journal of OR**, 102, 1997, pp. 626-647.

13. "From DSS to DSP: A taxonomic retrospection," (Arun Sen) in **Communications of the ACM**, 41, 5es, May 1998, p. 28. (Full version in ACM Digital Library, Volume 41, No. 5es, 1998, the URL is http://www.acm.org/).

Electronics (4 journal papers)

- 1. "A generalized cellular array for digital communications," (P. De, S. Bandyopadhyay, A. Sen and A. K. Choudhury), **Journal of Institute of Electrical and Telecommunications Engineers (India)**, Vol. 19, No. 7, 1973, pp. 372-377.
- 2. "Minimal realization of arbitrary switching functions with 2-level networks of isodistinct and isobaric gates," (P. De, A. Sen, A. Pal, D. Sharma, and A. K. Choudhury), **International Journal of Systems Science**, Vol. 5, No. 6, 1974, pp. 555-573.
- 3. "A tabular method of finding 2-summable and mutually 2-summable pairs of minterms," (P. De, A. Pal, A. Sen, D. Sharma, and A. K. Choudhury), **International Journal of Electronics**, Vol. 37, No. 3, 1974, pp. 409- 427.
- "A self-repairable threshold cellular array," (A. Sen, S. Bandyopadhyay, P. De, D. Sharma, and A. K. Choudhury), International Journal of Electronics, Vol. 37, No. 6, 1974, pp. 727-734

II. <u>Articles Under Review</u> (author names appear in exact order)

1. "Strategies for Influencing Drivers of Inequity in Healthcare," (Amit Bhatnagar, Arun Sen, Atish P. Sinha, and Minakshi Trivedi) submitted to **Marketing Science**, June 2023.

III. Work in Progress

- 1. "Where Perceptions Match Reality: The Influence of Hospital Medical Performance and Review Content Factors on Online Ratings," (Cong Zhang, Atish P. Sinha, and Arun Sen) to be submitted to **MIS Quarterly**, Expected submission date: August 2023.
- 2. "Planning Model Development for Medical Home: An Activity Theory Approach (with Atish P. Sinha) -- to be submitted to ????, Expected submission date: August 2023.
- 3. "Cost and Quality Performance of Accountable Care Organizations: An Empirical Investigation." (Mayukh Majumdar, Anupam Agrawal, Chelliah Sriskandarajah, and Arun Sen) revising to submit in **Production and Operations Management**, Expected submission date: August 2023.
- 4. "EHR Adoption and Diffusion: A Study of Meaningful Use," (Kumar, S., Qi, L., Sen, A., and Sinha, A. P.) to be submitted to **Information Systems research**, Expected submission date: November 2023.
- 5. "The Influence of Hospital Encounter and Spell History on Readmission Risk: An Empirical Analysis," (Atish P. Sinha, Arun Sen, and Amit Bhatnagar) to be submitted to **Production and Operations Management**, Expected submission date: December 2023.

IV. Extended Abstract

1. "A blackboard architecture for the decision support process: design and development issues," (with Ajay Vinze), **Data Base**, Vol 20, 3, Winter 1990, p. 6.

V. Refereed Proceedings

A. International Conferences

- 1. "A formal procedure for requirement analysis in data base design," (with P. De), **Proc. 14th. Hawaii International Conference on System Sciences**, Honolulu, 1981, pp. 127-136.
- "An extended entity relationship model," (with E. Gudes and P. De), Proc. 2nd International Conference on Entity-Relationship Approach, Washington, D.C., Oct 1981, pp. 459- 476.
 (Also, appeared in a book titled Entity-Relationship Approach to Information Modelling and Analysis (edited by Peter P. Chen), North-Holland Publishing, 1983.

- 3. "Data requirements planning for an MIS: An activity-oriented approach," (with P. De), **Proc. 15th. Hawaii International Conference on System Sciences.** Honolulu, 1982, pp. 874-879.
- 4. "Information resource management: A metadata approach," (with L. Kerschberg and D. Marchand), **Proc. 4th. International Conference on Information Systems**, Dec 15- 17, 1983, Houston, pp. 223- 239.
- "A framework for expert decision support system design," (with G. Biswas), Proc. International Conference on Computers, Systems, and Signal Processing, Bangalore (India), Dec 10-12, 1984.
- 6. "Design of an expert system in operations analysis," (with G. Biswas and M. Oliff) **Proc. of the IEEE International Conference on Systems, Man and Cybernetics**, Tucson, Arizona, 1985.
- "A framework for deductive database design in decision support systems," (with J. Choobineh) in Proc. International Conference on Information Systems, Pittsburgh, Dec 6 9, 1987.
- 8. "Aggregation semantics and NF² model of data," (with J. Choobineh and H. Hernandez), **Proc. of 23rd Annual Hawaii International Conference on System Sciences**, Vol II, pp. 338-346, 1990.
- "A case-based planning approach to model formulation," (with Ravi Vellore and Ajay Vinze),
 Proc. of the First Conference of the International Society for DSS, Austin, Sept 12-14,
 1990.
- "Automating model formulation for decision support," (with A. Vinze), Proc. of 22nd Annual Conference of International Simulation and Gaming Association (ISAGA), Quoto, Japan, July 15-19, 1991.
- "AEROBA: A blackboard approach to model formulation," (with A. Vinze and S. F. T. Feng) in Proc. of 25th Annual Hawaii International Conference on System Sciences, Vol III, pp. 551-563, 1992.
- "A similarity-based clustering algorithm to cluster cases in a case-object server," (with R. Mahapatra), Proceedings of the Third Annual Workshop on Information Technologies and Systems (WITS), Orlando, Florida, pp. 206-215, 1993.
- 13. "Reuse-Based Questionnaire Design in Survey Research," (with Marietta Tretter), **Proceedings of the Ninth Annual Workshop on Information Technologies and Systems** (WITS), Charlotte, North Carolina, December 11-12, 1999.
- 14. "Ontological Derivation of Actionable E-Metrics," **Proceedings of WEB 2005**, Las Vegas, December 10, 2005.
- 15. "Decision Support Technologies for CRM," Extended Abstract in **9th International Conference on Decision Support Systems**, Kolkata, India, January 2-5 2007.
- 16. "Healthcare Information Exchange: A Game-theoretic Analysis," (Emre Demirezen, Subodha Kumar and Arun Sen) in **2012 WITS Conference**, Orlando, Florida, December 15-16, 2012.
- 17. "Sustainability of Healthcare Information Exchanges: A Network Externalities Approach," (Emre Demirezen, Subodha Kumar and Arun Sen) in **2014 WITS Conference**, Auckland, New Zealand, December 15-16, 2014.
- "Sustainability of Healthcare Information Exchanges: A Network Externalities Approach," (Emre Demirezen, Subodha Kumar and Arun Sen) in 2014 WISE Conference, Auckland, New Zealand, December 15-26, 2014.
- 19. "A Retrospection of US Healthcare Care Delivery: Past, Present and Future," (Arun Sen) Invited Speaker in 13th International Conference of the Telemedicine Society of India, November 10-12, 2017, Pune India.
- "Advanced Healthcare Delivery: Learning from US Healthcare Market," (Arun Sen) Invited Speaker in Advanced Healthcare Seminar for Doctors at the Belle Vue Clinic (http://www.bellevueclinic.com/), Kolkata on December 23, 2017. (See https://www.telegraphindia.com/calcutta/docspeak-on-hepatitis-cure-195881)
- 21. "Lessons Learned from US Healthcare Care Delivery Operations," in **15th AIMS** International Conference on Management, January 6, 2018, Ghaziabad, India.

22. "Healthcare operations and Management: A Review of operations, management and analytics in US Healthcare Care delivery," 2nd International Conference on Frontiers of Operations Research & Business Studies, December 27-29, 2019, Kolkata, India.

B. Invited National Workshop

- 1. "Mapping the entity-relationship model to a blackboard architecture," (with Ajay Vinze, Craig Boyle, and S. Liou) in **Fourth Workshop on Blackboard Systems (American Association of Artificial Intelligence)**, Boston, Mass, August 29, 1990.
- 2. "Development of a Decision Support Tool for PCMH Transformation," in **Texas Primary Care Consortium Annual Summit**, June 20-21, 2019, Austin, Texas.

C. National Conferences

- 1. "On the use of cost-benefit analysis in gerontological management information system," (with J. Hayya and W. J. Sauer), **Proc. 10th National Conference on Decision Sciences Institute** (**DSI**), Oct 30- Nov 1, 1978, St. Louis, Missouri, p. 304.
- "Conceptualization of multicriteria record segmentation problem in large-shared databases," (with L. Franz), Proc. of 12th National Conference of the DSI, Las Vegas, Nov 5-7, 1980, p. 372.
- 3. "Allocation of replicated and partitioned files in a distributed network with planned redundancy," (with T. Rakes and L. Franz), **Proc. 13th National Conference of the DSI**, Boston, Nov 18 -20, 1981, p. 421.
- "Testing the event state model for requirement analysis in database design," (with P. De), Proc. of 12th Annual Pittsburgh Conference on Modeling and Simulation, 1982, pp. 571-575.
- 5. "A conceptual framework for knowledge base systems," **Proc. of the 13th Annual Pittsburgh Conference on Modeling and Simulation**, 1982, pp. 571- 575.
- 6. "A conceptual framework for network topology design," **Proc. of the 14th National Conference of the DSI**, San Francisco, Nov 22- 24, 1982.
- 7. "A conceptual design for management decision support: A knowledge base approach," (with P. De), **Proc. of the 15th National Conference of the DSI**, San Antonio, Nov 21- 23, 1983, pp. 215- 218.
- 8. "Mechanized analysis of data dictionaries (MADD): A conceptual framework," **Proc. of the 16th National Conference of the DSI**, Toronto, Nov 5 7, 1984.
- 9. "An expert system for operations analysis: An opportunity for productivity improvement," (with M. Oliff and G. Biswas), **Proc. of the 17th National DSI Conference**, Las Vegas, 1985.
- 10. "A semantic modeling of organizational controls," **Proc. of the 17th National DSI Conference**, Las Vegas, 1985.
- 11. "Model recognition for model management in decision support system: An expert systems approach," (with A.M. Quaye), **Proc. of the 18th National DSI Conference**, Honolulu, 1986.
- 12. "A study of internal control in a data base environment," (with Ed Doty), **Proc. of 19th National DSI Conference**, Boston, November 23 -25, 1987.
- "QUESTOR: An expert systems approach to internal audit department evaluation in banks," (with Wanda Wallace) in Proc. of 20th National DSI Conference, Las Vegas, Nov 21-23, 1988.
- 14. "A framework for complex object management," (with S. Venkatraman) in **Proc. of 22nd National DSI Conference**, San Diego, Nov 19-21, 1990.
- 15. "Data allocation in a distributed relational database," (with B. Shetty and R. Sarathy) in **Proc.** of the 22nd National DSI Conference, San Diego, Nov 19-21, 1990.
- 16. "Understanding the case-based approaches to model formulation," (with R. Vellore and Ajay Vinze), in **Proc. of the 22nd National DSI Conference**, San Diego, Nov 19-21, 1990.

- 17. "A Game-Theoretic Analysis of Healthcare Information Exchanges," (Emre Demirezen, Subodha Kumar and Arun Sen) in **2013 INFORMS' Conference on Information Systems and Technology (CIST)**, Minneapolis, October 5-6, 2013.
- 18. "Sustainability of Healthcare Information Exchanges," (Emre Demirezen, Subodha Kumar and Arun Sen) in **2014 INFORMS' Conference on Information Systems and Technology** (CIST), San Francisco, November 8-9, 2014.
- 19. "Double-sided network externalities in healthcare information exchanges," in **2016 POMS Annual Conference**, May 6-9, 2016, Orlando Florida.
- 20. "Strategies for Influencing Drivers of Inequity in Healthcare," (Amit Bhatnagar, Arun Sen, Atish P. Sinha, and Minakshi Trivedi) in **2023 Marketing Science: Diversity, Equity and Inclusion Conference**, March 24-25, 2023, Southern Methodist University, Dallas, Texas.

D. Regional Conferences

- "Forecast of the second destination transportation tonnage for the air force: A case study," (with J. Hayya, J. E. Tysworth, P. Gross), Proc. the S. E. DSI Conference, Orlando, 1980, pp. 228-230.
- 2. "Configuration planning for distributed data base systems," (with L. Franz), **Proc. of the S. E. DSI Conference**, Charlotte, 1981, pp. 124- 126.
- 3. "Managing the evolution of distributed processing networks: A framework," (with T. Rakes and L. Franz), **Proc. of the S. E. DSI**, Memphis, 1982, pp. 34-36.
- 4. "The effect of traffic variance on optimal file allocation in a distributed data system," (with T. Rakes and S. Anderson), **Proc. of the S. E. DSI Conference**, Williamsburg, 1983, pp. 96-98.
- 5. "Designing data abstractions for EDP auditors: Some alternative frameworks," (with B. Killingsworth), **Proc. of the S. E. DSI Conference**, Savannah, 1984, pp. 112-114.

VI. Non-refereed Publications

- 1. "A comparative study of reliability measures for a distributed processing star network," (with T. Rakes and L. Franz), **Proc. of the S. E. TIMS**, Atlanta, 1981, pp. 144-151.
- 2. "A new approach for testing and realization of a set of Boolean functions by variable-threshold elements," (with A. Pal, P. De, D. Sharma, and A. K. Choudhury), **Proc. of the Symposium on Circuits, Systems and Computers**, India, 1975.
- 3. "Distributed data processing and OR A survey," (with B. Shetty, S. Venkatraman and R. Sarathy) in **TIMS National Meeting**, Denver, Colorado, 1988.
- 4. "Knowledge representation using NF² relations," (with J. Choobineh) in **TIMS National Meeting**, Vancouver, Canada, May 1989.
- 5. "Expert assistance to the decision support process (XDSP): A Blackboard Architecture" (with Ajay Vinze) in **TIMS National Meeting**, Las Vegas, Nevada, 1990.
- 6. "A cognitive model to support case-based planning" (with Ajay Vinze and Ravi Vellore), in **TIMS National Meeting**, Philadelphia, Penn, Oct 29-31, 1990.
- 7. "Implementation of blackboard systems in model formulation," (with Ajay Vinze), in **TIMS National Meeting**, Nashville, Tenn, May 12-15, 1991.
- 8. "Importance of Similarity: An Overview," (with P.De), in **INFORMS National Meeting**, New Orleans, Louisiana, Oct 29- Nov 1, 1995.

DEPARTMENTAL, COLLEGE, AND UNIVERSITY COMMITTEE WORK

- 1. Member, Self Management Center Advisory Committee in USC, 1979- 1980.
- 2. Member, University Graphics Committee, USC, 1980- 1981.
- 3. Member, Business School Library Committee, USC, 1980-1981, 1982-1984.

- 4. Member, Business School Library Task Force, USC, June 1985- July 1986.
- 5. Senator, University Faculty Senate, USC, August 1985 July, 1986.
- 6. Member, Ph.D. Committee in the Business Analysis department, TAMU, 1987-1991.
- 7. Member, Knowledge Systems Research Program Committee, TAMU, 1986-1989.
- 8. Member, INFO Ad hoc Ph.D. Review Committee, 1990.
- 9. Member, CBA Research Committee, TAMU, 1988-1991.
- 10. Member, University Fiscal Appeals Panel, TAMU, 1991-1992.
- 11. Member, CBA Computer User Committee, TAMU, 1991- present.
- 12. Assisting doctoral students in the Teaching Portfolio Seminar, TAMU, 1993.
- 13. Member, University Students Appeals Committee, TAMU, 1993-1994.
- Member, CBA Committee on Computing Requirement for the Wehner Building, TAMU, 1993-1994.
- 15. Member, INFO Departmental Committee on Working Paper Implementation, TAMU, 1993-1994.
- 16. Member, Ph.D. Committee in the Information and Operations Management department, 1998-2006.
- 17. Senator in TAMU Faculty Senate, 1998-2000.
- 18. Chair, Departmental Undergraduate Curriculum Committee, 1998-1999.
- 19. Member, Departmental Advisory Committee, 1998-1999, and 2001-2002.
- 20. Chair, Departmental Faculty Search Committee, 1998.
- 21. Member, Departmental Faculty Search Committee, 1997, 1999-2000.
- 22. INFO Departmental Graduate Advisor (MS and Ph.D.), 2002-2006.
- 23. Member, Texas A&M University Faculty Development Leave Committee, 2007-2010.
- 24. Member, Texas A&M University Council of Principal Investigators, 2012-2015.
- 25. Team leader, Mays Task Force on MS Program in Analytics 2015-2016.

EXECUTIVE SEMINARS TAUGHT

- 1. Participated in the Executive Seminar on Distributed Processing offered by the Daniel Management Center, College of Business Administration, University of South Carolina, April 10-11, 1980.
- 2. Participated in the Executive Seminar on Data Base- A Management Briefing offered by the Daniel Management Center (USC), Feb 18 19, 1981.

3. Participated in the Executive Seminar on Information Technology Management for the Office of the Governor of the State of South Carolina offered by the Daniel Management Center (USC), July 21-22, 1982.

PROFESSIONAL ACTIVITIES - INTERNATIONAL

- 1. Session Chairperson, **1992 and 2001 ICIS Conference**.
- 2. Discussant in **ICIS Conferences**.
- Guest Speaker in IEEE Guest Speaker Series, Indian Institute of Technology, Kharagpur, India, in December 1992.
- 4. Coordinator of a mini-track **Blackboard Paradigm and its Applications** (with A. Vinze) in HICSS (Hawaii International Conference in Systems Sciences), 1992 and 1993.
- 5. Member, Program Committee, 1992, 1999 and 2001 International Conference in Information Systems (ICIS).
- 6. Member, Program Committee, **Second International Conference on Information Systems and Management of Data**, New Delhi, India, 1993.
- 7. Member, Program Committee, 1993 Workshop in Information Technology and Systems (WITS), 1994 WITS, 1995 WITS, 1997 WITS, 1998 WITS, 1999 WITS, 2000 WITS, 2006-2017 WITS.
- 8. Member, Program Committee, **1996 INFORMS Conference on Information Systems and Technologies**, held in Spring, 1996.
- 9. Program Chair, **1996 WITS**, held in Cleveland, Ohio.
- 10. Member, Program Committee, **International Conference on Design Science Research in Information Systems and Technology**, 2011, 2012, and 2017.

PROFESSIONAL ACTIVITIES - NATIONAL

- 1. Chairman, MIS table topic session, **13th National DSI Conference**, 1981.
- 2. Session organizer and session chairman, **13th Annual Conference on Modeling and Simulation**, 1982.
- 3. Workshop organizer in **16th National DSI Conference**, 1984. (Title of the workshop: "DSS Design using Expert Systems Approach").
- 4. Discussant in **National DSI Conference**.
- 5. Evaluator for the Best Paper Award in the **1992 DSI Conference**.
- 6. Invited to participate in the **1993 DSI Doctoral Consortium** held November 19-20, 1993 in Washington, D. C.
- 7. Session Chairperson in **DSI** and, **TIMS/ORSA Conferences**.
- 8. Invited to participate in the **1993 DSI New Faculty Consortium** held in Washington. D. C.

- 9. Track Chair, AI and DSS Track, 1996 National DSI Conference to be held in Orlando, Florida.
- 10. Member, Program Committee, **INFORMS Conference on Information Systems and Technologies (CIST)**, 1996 (held in Washington DC), 1997 (held in San Diego) and 1998 (held in Montreal, Canada).

PROFESSIONAL ACTIVITIES - REGIONAL

- MIS Track Chairperson, 1986 SE DSI Conference.
- 2. Arranged **TexIS Ph.D. Consortium** on April 6, 1990, held in College Station.
- 3. Founded A&M Workshop on Data Warehouse and Data Mining.

NATIONAL OFFICE

- 1. Vice-Chair, **INFORMS College of Information Systems (DSS)** 1991-1992.
- 2. Member, Search Committee for Editor-in-Chief in **Information Systems Research** (**ISR**), an INFORMS journal in Information Systems, 1991-1992.
- 3. Member, Sub-committee to provide future directions for the ISR journal, 1991-1992.
- 4. Vice-Chair, INFORMS College of Information Systems (INFORMS), 1993- 1995.
- 5. Chair, **INFORMS College on Information Systems**, 1995-1997.

EDITORSHIP WORK

- 1. Member of the Editorial Board, **Journal of Database Management**, Idea Group Publishing Company, 1989- 1996.
- 2. Guest Editor (with A. Vinze), **Special Issue of Expert Systems with Applications** (**The Blackboard Paradigm and Its Applications**), Vol. 7, 1, 1994, Pergamon Press.
- 3. Guest Editor (with A. Vinze), **Special Issue of Journal of Decision Support Systems** (**Model Formulation: Theory, Process and Support Systems**), published in 1995, North-Holland.
- 4. Guest Departmental Editor, **DataBase**, 1995.
- 5. Associate Editor, **Journal of Database Management**, 1996-2000.
- 6. Guest Editor (with George Ernst), **Special Issue of Decision Support System (on WITS'96)**, published in 1998, North-Holland.
- Guest Editor, Special Issue of Information Systems (on WITS'96) published in 1998, Elsevier Press.
- 8. Guest Editor (with Varghese Jacob), **Special Issue of Communication of the ACM (on Data Warehousing)** published in Fall, 1998.

REVIEW WORK

1. **Journal Reviewer**

MIS Quarterly, Decision Sciences, Communications of ACM, Data and Knowledge Engineering, IEEE Transaction on Computers, Omega, ISR, Journal of DSS, Naval Research Logistics Quarterly, IEEE Computer, Operations Research, IJMMS, Information Systems, DATABASE and JDM.

2. Conference Reviewer

8th Very Large Data Base, SIGMOD, National DSI Conferences, SE DSI Conferences, Expert Data Base Conference, IEEE INFOCOM87, ICIS Conferences, HICSS Conferences, CISMOD93, WITS Conferences and 1996 INFORMS- CIST.

3. External Evaluator for Tenure and Promotion

- Arizona State University
- Georgia Tech University
- Ohio State University
- Penn State University,
- Purdue University,
- University of Georgia,
- University of South Carolina
- Virginia Tech
- Virginia Commonwealth University

4. **Manuscript Review**

- Reviewed a manuscript proposal from John Wiley in 1990.
- Reviewed a manuscript pre-proposal.