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SURESH K. KHATOR

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Education

PURDUE UNIVERSITY, West Lafayette, IN 47907. Doctor of Philosophy in Industrial Engineering, December 1975. Concentration in Manufacturing/Production area.

INDIAN INSTITUTE OF TECHNOLOGY, New Delhi, India. Masters of Technology in Production and Industrial Engineering with distinction, August 1971.

JIWAJI UNIVERSITY, Gwalior, India, Bachelor of Engineering in Mechanical Engineering with distinction, August 1969.

Teaching/Research Interests

Modeling of Energy, Health Care and Manufacturing Systems, Facilities Design, Production Planning and Control, Project Management.

Professional Registration/Certification

Registered Professional Engineer in Florida

Professional Institute Affiliation

Fellow, Institute of Industrial Engineers

Administrative Appointments

Associate Dean for Graduate Programs, University of Houston (September 2008 -):
I am responsible for graduate recruitment and retention, curriculum and other issues related to graduate education, international collaboration and computing facilities in the College of Engineering.

Director, Engineering Computing, University of South Florida (June 1998 – Jan 2008): As Director I was responsible for planning and supervision of computing in the College of Engineering. The computing facilities in the College consisted of six open-access and teaching labs with over 200 computers. The network consists of more than 50 servers with Solaris (Unix) and Windows platforms. The department was responsible for providing hardware, software, database, application and web support to all academic and support units in the College. I also participated in the university level technology and computing policy-making committees and chaired the Computing Directors' Committee for last 5 years.

Interim Associate Dean (Academics), College of Engineering, University of South Florida (1994 - 95): I was responsible for graduate/undergraduate academic matters such as admissions, scholarships, student petitions and graduation at the College level. Also, coordinated SACS and ABET accreditation activities for the College.

Director of Undergraduate Program of the Department of Industrial & Management Systems Engineering (1983 - 86 and 1990 - 92): Directed Bachelor of Science in Industrial Engineering degree program. With the approval of the departmental faculty continually updated undergraduate curriculum. Developed rational prerequisites, course offering schedule and a flowchart for timely degree completion by full time, part-time and co-op students.

Director of Graduate Programs of the Department of Industrial & Management Systems Engineering (1986-89): Directed Master of Science and Ph.D. degree programs in Industrial Engineering. I was responsible for graduate admissions (with input from the graduate committee), course scheduling, assigning teaching assistants and monitoring department guidelines.

Teaching and Research Appointments

Professor, Industrial Engineering, University of Houston (January 2008 – present): Teaching, research and advising in the field of industrial engineering. I taught a graduate level Project Management course in Spring 2008 and I am scheduled to teach undergraduate Simulation course in Fall 2008.

Professor of Industrial and Management Systems Engineering at the University of South Florida (1993 - 2008), Associate Professor (1987-1993), Assistant Professor (1983-1987): Developed several graduate and undergraduate courses. Taught a wide range of graduate and undergraduate courses in computer simulation, manufacturing and facilities design area. Also taught engineering economy, engineering statistics and linear system core courses. Supervised 10 Ph.D. Dissertations and 37 Masters Theses and was a member of numerous Ph.D. and Masters Committees.

Senior Lecturer, Operation & Systems Management Faculty of Business Administration, Chinese University of Hong Kong (1989-1990): Taught graduate and undergraduate courses in operations management, business simulation and business statistics while on Sabbatical from USF.

Visiting Asst. Professor of Industrial Engineering at Purdue University (1981-1983): Taught engineering economy, facilities design and production control courses.

Teaching/Research Assistant at Purdue University (1973-1975): Assisted professors in Industrial and Aeronautical Engineering on their grants and classroom teaching.

Industry Appointments

Executive Assistant to the President, Hyderabad Asbestos Cement Products, India (1980-1981). Worked on all aspects (marketing, technical collaboration and feasibility studies) of large-scale diversification projects involving building products.

Consultant, Computer Division, Administrative Staff College of India (1976-1980): Project leader of three large software development projects for export and directed several in-company computer-training programs for various industries.

Tool Room Engineer, Bharat Steel Tubes, India (1971-72): In-charge of a tool room engaged in fabrication of steel tube plants.

Leadership Appointments

Faculty Athletic Representative (FAR) to NCAA, USF. As university's faculty athletic representative, I chaired University Athletic Council and was responsible for the enforcement and appeals process, athletes eligibility certification, oversight for academic aspect of athletic program and personal welfare of student-athletes (2006- 2008).

Member, Board of Trustees Workgroup on Academics and Campus Environment, USF (2004 – 2006)

Vice President Faculty Senate, USF (1999-2001)

External Examiner and Coordinator for Doctoral Sandwich Program, Federal University of Santa Catarina, Brazil (1992 - present)

Board Member, College Industry Council on Material Handling Engineering (1992-95)

Chair, College of Engineering Governance Committee, USF (1993 - 94)

Chair, College of Engineering Research Council, USF (1992 - 93)

Research Publications

“Artificial Intelligence Approach to Support Statistical Quality Control Teaching,” (with M. Reis, E. Paladini and W. Sommer), *Computers and Education*, 47 (4) 2006, 448-464.

“Controller Design and Performance Evaluation for Deadlock Avoidance in Automated Flexible Manufacturing Cells,” (with S. Mohan and A. Yalcin), *Robotics and Computer-Integrated Manufacturing*, 20 (2004) 541-551.

“Deadlock Avoidance in Flexible Manufacturing Systems,” (with S. Mohan and A. Yalcin), *Proc. of International Conference on Flexible Automation & Intelligent Manufacturing*, 2003.

“Continuity of Government Operations – Developing an Alternate Relocation Plan,” (with M. Rogoff, V. Harrell, *et. al.*) *Public Works*, January 2003, 40-43.

- “System Dynamics Modeling of Agility in a Supply Chain,” (with M. Deshmukh) *Proc. of VIII Int. Conf. on Industrial Engineering & Operations Management*, October 2002.
- “Power Substation Modeling,” (with L. Leung) Chapter in *Encyclopedia of Electrical and Electronics Engineers*, Vol. 17 edited by John G. Webster, John Wiley & Sons, 1999.
- “Tabu Search Based Scheduling of Single Batch Processing Machines,” (with K. Panpaliya), *Proceedings of the 14th International Conference On CAD/CAM, Robotics and Factories of the Future*, pp 188-195, December 1998.
- “A Hybrid Genetic Algorithm Framework for Real Job Shop Scheduling Problems,” (with M. Candido and R. Barcia), *Int. J. of Prod. Research*, 36(12) 3437-3457, 1998.
- “Production Control: Reduction of Shoplocking in Flexible Manufacturing Systems,” (with S. Maheshwari), *Academy of Information and Management Science Journal*, 1(2) 29-51, 1998.
- “Capacity Planning for a Group Technology Based Manufacturing Facility,” (with C. Saenz) *Proc. of 7th Annual Industrial Engineering Research Conference*, May 1998.
- “Personal Assistance: An Intelligent Hybrid System Approach,” (with M. Thiry, R. Barcia and A. Martins) *Proc. of 7th Annual Industrial Engineering Research Conf.*, May 1998.
- “Fuzzy and Crisp Strategies to Control Elevators,” (with S. Tangirala) *Proceedings of 7th Annual Industrial Engineering Research Conference*, May 1998.
- “A Parallel Hybrid Genetic Framework to Solve Real Job Shop Scheduling Problems,” (with M. Candido) *Proc. of 7th Annual Industrial Engineering Research Conf.*, May 1998.
- “Scheduling Under Uncertainty: A Fuzzy Approach,” (with R. Cury, F. Gauthier and R. Barcia) *Proc. of 7th Annual Industrial Engineering Research Conference*, May 1998.
- “Applying Simulated Annealing to Real Job Shop Scheduling Problems,” (with M. Candido and R. Barcia), *2nd Annual Int. Conf. Proc. on Industrial Engineering Application and Practice*, pp. 1211-16, November 1997.
- “Power Distribution Planning: A Review of Models and Issues,” (with L. C. Leung), *IEEE Transactions on Power Systems*, *IEEE Trans. on Power Systems*, 12 (3) 1151-59, 1997.
- “A Hybrid Approach to Solve Real Make-to-Order Job Shop Scheduling Problems,” (with M. Candido, R. Barcia and F. Gauthier), *Proc. of 6th Industrial Engineering*

Research Conference, pp. 204-209, May 1997.

“Financial Diagnosis through a Hybrid Intelligent System,” (with R. Pacheco, A. Martins and R. Barcia), *Proc. of Fourth European Congress on Intelligent Techniques and Soft Computing*, Aachen, Germany, Sept. 1996.

“System Reconfiguration to Avoid Deadlocks in Automated Manufacturing Systems,” (with Kelwyn D'Souza), *Computers & Industrial Engineering* 32(2) 455-465, 1997.

“Foundations of Rule-Based Computations in Fuzzy Models,” (with A. Kandel, R. Pacheco and A. Martins) Chapter in *Fuzzy Modelling: Paradigms and Practice*. Editor: W. Pedrycz, International Series in Intelligent Technology, Kluwer Academic Publishers, pp. 231-263, 1996.

“Optimal Transformer Allocation under Single Contingency,” (with L C Leung and Jackie Ponce), *IEEE Transactions on Power Systems*, 11 (2) 1996.

“An Information Management System for Forecasting Environmental Change,” (with V. Silveira) *Proc. of 19th Int.Conf. on Computers & Industrial Engineering*, March 1996.

“Portfolio Selection through Mathematical Programming in CAD Environment,” (with J. Vieira) *Proc. of 19th Int.Conf. on Computers & Industrial Engineering*, March 1996.

“A Fuzzy Approach to the Prisoner's Dilemma,” (with P. Borges, R. Pacheco and R. Barcia) *BioSystems*, Vol. 41, pp. 127-137, 1997.

“Analysis of Tool Sharing in an FMS: A Simulation Study,” (with A. Kashyap), *Computers & Industrial Engineering*, 30 (1) 137-145, 1996.

“Simultaneous Evaluation and Selection of Strategies for Loading and Controlling of Machines and Material Handling Systems in FMS,” *International Journal of Computer Integrated Manufacturing*, 8 (5) 340-356, 1995.

“Case-Based Reasoning for Cash Flow Forecasting using Fuzzy Retrieval,” *Proceedings of International Conference on Case-Based Reasoning 1995*, (with R. Lee and R. Barcia), Sesimbra, Portugal, pp. 510-19, October 1995.

“A Hybrid Intelligent System to Diagnose and Indicate Solutions to Financial Problems,” *Proceedings of the First International Congress of Industrial Engineering*, San Carlos, Brazil (with R. Pacheco, et. al.), pp. 1879-84, September 1995.

“Supporting Working Capital Decisions through Fuzzy Analysis,” *Proceedings of the First International Congress of Industrial Engineering*, San Carlos, Brazil (with A. Martins, et. al.), pp. 1858-62, September 1995.

“Planning Substation Capacity Under Single-Contingency Scenario,” (with L. C. Leung and J. C. Schnepf), *IEEE Trans. on Power System Engineering*, 10 (3) 1442-47, 1995.

“Distribution Planning in an Electric Utility,” (with L. C. Leung), *Proceedings of the Fourth Industrial Engineering Research Conference*, June 1995.

“Transformer Procurement and Relocation at a Large Electric Utility: A Mixed 0-1 Linear Programming Model,” (with L. C. Leung), *IEEE Trans. on Power Systems*, 10 (2) 957-963, 1995.

“Distribution Planning in an Electric Utility: Feeder Configurations,” (with A. K. Sarada and L. C. Leung), *Computers & Industrial Engineering*, 28 (2) 329-339, 1995.

“Object Oriented Analysis and Programming for a Working Capital Management System,” *Proceedings of IEEE/IAFE Conference on Computational Intelligence for Financial Engineering* (with R. Lee, et. al.), April 1995.

“Modeling of a Tool Shared Flexible Manufacturing System,” (with A. Kashyap), *Proceedings of the 1994 Winter Simulation Conference*, December 1994.

“Tool Handling in Automated Manufacturing,” (with L. C. Leung), chapter in *Material Flow Systems in Manufacturing*, Editor: J. M. A. Tanchoco, (Chapman & Hill, 1994), pp. 335-367, October 1994.

“Simulation of Tool Requirement in Flexible Manufacturing System,” (with S. Maheshwari), *IBSCA Quarterly*, October 1994.

“A Survey of Petri Net Applications in Modeling Controls for Automated Manufacturing Systems,” (with K. D'Souza), *Computers in Industry*, 24 (1) 5-16, 1994.

“Intermediate Tool Requirement Planning for FMS,” (with L. C. Leung), *Journal of Manufacturing Systems*, 13 (1) 9-19, 1994.

“A Pattern Recognition Procedure for Quality Evaluation Using Neural Networks: An Application in Ceramic Tile Industry,” (with E. Paladini and R. Barcia), *Proc. of Artificial Neural Networks in Engineering*, St. Louis, Missouri, November 1993.

“A Procedure for Selection of Strategies for Loading and Controlling of Machines and Material Handling System in FMS,” (with S. Maheshwari), *Proceedings of 29th South East TIMS Conference*, October 1993.

“A Petri Net Approach for Modeling Controls of a Computer-Integrated Assembly Cell,” (with K. D'Souza), *Int. J. of Comp. Integrated Manufacturing*, 6 (5) 302-310, 1993.

- “Smart Lifts: Control Design and Performance Evaluation,” (with S. Benmakhlouf), *Computers & Industrial Engineering*, 25 (1-4) 175-178, 1993.
- “Control Rules for Tool Sharing in Flexible Manufacturing Systems,” (with A. Kashyap), *Computers & Industrial Engineering*, 25 (1-4) 507-510, 1993.
- “Operational Control of Multi-load Automatic Guided Vehicles,” (with P. Nayyar), *Computers & Industrial Engineering*, 25 (1-4) 503-506, 1993.
- “Petri Net Based Simulation of Controls for a Computer Integrated Assembly Cell,” (with K. D'Souza), *Proc. of the 1992 Winter Simulation Conference*.
- “Flexible Manufacturing Systems,” *Encyclopedia of Computer Science and Technology*, Marcel Dekker, Inc., Vol. 22, No. 7, 1990.
- “Simulation Modeling: A Design and Analysis Tool,” *1989-1990 Annual Issue of the Institute of Industrial Engineers*, Hong Kong.
- “The Design of a Code-based Robotic Assemblability Index: A Taxonomy,” (with D. Furtado and D. L. Kimbler), *Proc. of Robots-12 and Vision-88 Conf.*, pp. 9-59 to 9-76.
- “Determining Over-design with Time-Dependent Simulation,” (with A. Ramsay), *Jamaica Institution of Engineers Journal*, 6 (1) 75-80, 1987-88.
- “Assignment of AGVS with Different Vehicle Types,” (with D. L. Kimbler and L. C. Leung), *Material Flow*, Vol. 4, 1987, pp. 65-72.
- “Multiobjective Decision Making Approach to Determine Alternate Routing in a Flexible Manufacturing System,” (with S. A. Gangan and A. J. G. Babu), *Proc. of the 9th Annual Conference on Computers and Industrial Engineering*, Atlanta, Georgia, March 1987.
- “Cell Formation in Group Technology: A New Approach,” (with S. A. Irani), *Computers and Industrial Engineering*, 12 (2) 1-12, 1987.
- “Heat Exchanger Optimization in a Crude Preheat Train,” (with A. Ramsay), *Simulation*, 46 (3) 100-105, March 1986.
- “A Production Oriented Classification System for Setup Time Reduction,” (with Issac Thomas), *Proc. of 1986 Fall Industrial Engineering Conf.*, pp. 333-341, December 1986.
- “Capacity Utilization and Machine Sharing in a Group Technology Based Manufacturing System,” (with S. A. Irani) *Proc. of the 8th Annual Conf. on Computers & Industrial Engineering*, pp. 73-77, 1986.
- “A Microcomputer Based Design of a Cellular Manufacturing System,” (with S. A. Irani)

Proc. of the 8th Annual Conf. on Computers & Industrial Engineering, pp. 68-72, 1986.

“A Flow Controlled Modeling Approach,” (with Shimon Nof) *Material Flow*, Vol. 2, pp. 1-10, 1985.

“Machine Component Cluster Formation in Group Technology: An Occupancy Value Method,” (with S. A. Irani) *Proc. of 7th National Conference on Computers & Industrial Engineering*, 1985.

“Computer Assisted Plant Layout Using a Graphics Editor,” (with Colin Moodie), *Computers and Industrial Engineering*, 8 (3/4) 171-179, 1984.

“A Microcomputer Program to Assist in Plant Layout,” (with Colin Moodie), *Industrial Engineering*, 15 (3), 1983. Reprinted in *Computerized Facility Planning: Selected Readings* edited by H. Lee Hales, Industrial Engineering and Management Press, Atlanta, Ga, 1985.

“A Machine Loading Procedure which considers Part Complexity and Machine Capability,” (with Colin Moodie), *Int. J. of Prod. Research*, 17 (1) 33-44, 1979.

“The Status of Scheduling in Mixed Shops with NC and Conventional Equipment: A Survey,” (with Colin Moodie), *Proc. of AIIE Sys. Engr. Conf.*, Las Vegas, Nov. 1975.

Conference Presentations

“Modeling Demand Variability and Process Time Uncertainty in Multi-Product Batch Process,” IIE Annual Conference, Nashville, TN, May 19-23, 2007.

“Intelligent Traffic Control Strategies for Incident Management in an Urban Street Network,” INFORMS Annual Meeting, San Francisco, November 13-16, 2005.

“A Fuzzy Logic Based Design of Cellular Manufacturing System,” IIE Annual Conference, Atlanta, GA, May 14-18, 2005.

“Fuzzy Approach to Designing Warehouse Layouts,” X Int. Conf. on Industrial Engineering Management, Florianopolis, SC, Brazil, November 3-5, 2004.

“Technology and Development in the Global Village: A Case Study of Indian Call Centers,” Technology, Sustainable Development and Democracy, St. Petersburg, Russia, October 12-14, 2004 (with R. Khator).

“Deadlock Avoidance in Flexible Manufacturing Systems,” (with S. Mohan and A. Yalcin) International Conference on Flexible Automation & Intelligent Manufacturing, June 9-11, 2003, Tampa, Florida.

“Planning for Continuity of Government Operations,” Int. Public Works Congress and Exposition, August 24-27, 2003, San Diego, CA.

“System Dynamics Modeling of Agility in a Supply Chain,” VIII Int. Conf. on Industrial Engineering & Operations Management, October 23-25, 2002, Curitiba, Brazil.

“The Digital Divide: Ethical Implications for Developing Countries,” 1st International AmFiTan Conference on Development Ethics held in Dar es Salaam, Tanzania, February, 2000 (with R. Khator).

“Tabu Search Based Scheduling of Single Batch Processing Machines,” 14th International Conference on CAD/CAM, Robotics and Factories of the Future, December 1-3, 1998, Coimbatore, India.

“Production Control: Reduction of Shoplocking in Flexible Manufacturing Systems,” (with S. Maheshwari), Academy of Information and Management Science Conference, October 25-28, 1998, Las Vegas, Nevada.

“Capacity Planning for a Group Technology Based Manufacturing Facility,” 7th Annual Industrial Engineering Research Conference, May 9-10, 1998, Banff, Alberta, Canada.

“Personal Assistance: An Intelligent Hybrid System Approach,” 7th Annual Industrial Engineering Research Conference, May 9-10, 1998, Banff, Alberta, Canada.

“Fuzzy and Crisp Strategies to Control Elevators,” 7th Annual Industrial Engineering Research Conference, May 9-10, 1998, Banff, Alberta, Canada.

“A Parallel Hybrid Genetic Framework to Solve Real Job Shop Scheduling Problems,” (with M. Candido) 7th Annual Industrial Engineering Research Conference, May 9-10, 1998, Banff, Alberta, Canada.

“Scheduling Under Uncertainty: A Fuzzy Approach,” (with R. Cury) 7th Annual Industrial Engineering Research Conference, May 9-10, 1998, Banff, Alberta, Canada.

“Applying Simulated Annealing to Real Job Shop Scheduling Problems,” (with M. Candido and R. Barcia), 2nd Int. Conf. On Industrial Engineering Applications and Practice, San Diego, November 1997.

“A Hybrid Approach to Solve Real Make-to-Order Job Shop Scheduling Problems,” (with M. Candido) 6th Industrial Engineering Research Conference, Miami, FL, May 1997.

“Power Distribution Planning: A Review of Models and Issues,” (with L. C. Leung) 1996 IEEE Power Eng. Society, 1996 Summer Meeting, Denver, CO, July 28 - August 1,

1996.

“An Information Management System for Forecasting Environmental Change,” (with V. Silveira) 19th Int.Conf. on Comp. & Industrial Engineering, Miami, FL, March 3-6, 1996.

“Portfolio Selection through Mathematical Programming in CAD Environment,” (with J. Vieira) 19th Int.Conf. on Comp. & Industrial Engineering, Miami, FL, March 3-6, 1996.

“Case-Based Reasoning for Cash Flow Forecasting using Fuzzy Retrieval,” International Conference on Case-Based Reasoning 1995, (with R. Lee and R. Barcia), Sesimbra, Portugal, October 23-26, 1995.

“A Hybrid Intelligent System to Diagnose and Indicate Solutions to Financial Problems,” International Congress of Industrial Engineering, San Carlos, Brazil (with R. Pacheco, et. al.), September 4-7, 1995.

“Supporting Working Capital Decisions through Fuzzy Analysis,” International Congress of Industrial Engineering, San Carlos, Brazil (with A. Martins, et. al.), Sept. 4-7, 1995.

“Optimal Transformer Allocation under Single Contingency,” IEEE Power Engineering Society, 1995 Summer Meeting, Portland, Oregon, July 23-27, 1995.

“Distribution Planning in an Electric Utility,” Fourth Industrial Engineering Research Conference, Nashville, May 24-25, 1995 (with L. C. Leung).

“Planning Substation Capacity Under the Single-Contingency Scenario,” IEEE Power Engineering Society, 1995 Winter Meeting, January 29-Feb 2, 1995, New York, NY.

“Modeling of a Tool Shared Flexible Manufacturing System,” 1994 Winter Simulation Conference, Orlando, FL, December 1994 (with A. Kashyap).

“Transformer Procurement and Relocation at a Large Electric Utility: A Mixed 0-1 Linear Programming Model,” IEEE Power Engineering Society 1994 Summer Meeting, July 24-28, 1994, San Francisco, CA (with L. C. Leung).

“Planning Substation Capacity at a Large Electric Utility: Models and a Case Study,” ORSA/TIMS 36th Joint National Meeting, Phoenix, Arizona, October 31 - November 3, 1993 (with L. Leung and M. McCallum).

“A Procedure for Selection of Strategies for Loading and Controlling of Machines and Material Handling System in FMS,” Southeast TIMS Conference, Myrtle Beach, South Carolina, October 7-8, 1993 (with S. Maheshwari).

“Smart Lifts: Control Design and Performance Evaluation,” 15th Annual Computer & Industrial Engineering Conf, Cocoa Beach, FL, March 8-10, 1993 (with S.

Benmakhlouf).

“Control Rules for Tool Sharing in Flexible Manufacturing Systems,” 15th Annual Comp. & Industrial Engineering Conf., Cocoa Beach, FL, March 8-10, 1993 (with A. Kashyap).

“Operational Control of Multi-load Automatic Guided Vehicles,” 15th Annual Comp. & Industrial Engineering Conference, Cocoa Beach, Florida, March 8-10, 1993.

“Petri Net Based Simulation of Controls for a Computer-Integrated Assembly Cell,” 1992 Winter Simulation Conference, Virginia, December 13-16, 1992 (with K. A. D'Souza).

“Procurement and Allocation of Transformers in an Electric Utility Company: A Mathematical Programming Model,” ORSA/TIMS Conference, San Francisco, November 1992 (with L. C. Leung and Mike E. McCallum).

“Avoidance of Shop-Locking in Integrated Manufacturing Systems: A Simulation Approach,” Third Annual Meeting of the Production and Operations Management Society, Orlando, October 18-21, 1992 (with S. K. Maheshwari).

“Allocation and Procurement of Transformers in an Electrical Utility,” Third Annual Meeting of the Production and Operations Management Society, Orlando, October 18-21, 1992 (with J. Schnepf, L.C. Leung and A. Sarada).

“ODESSA: An Integrated CASE Tool for Simulation Software in Ada,” Software Engineering Research Forum, Tampa, FL, November 1991 (with D. Rundus and S. Ramanathan).

“Modeling of a Cooling Water System for Thermal Power Plants,” 1989 Eastern Simulation Multiconference, Tampa, March 1989.

“Multiobjective Decision Making Approach to Determine Alternate Routing in a Flexible Manufacturing System,” 9th Annual Conference on Computers and Industrial Engineering, Atlanta, Ga., March 1987 (with S.A. Gangan and A.J.G. Babu).

“A production Oriented Classification System for Setup Time Reduction,” Fall 1986 Industrial Engineering Conference.

“The Role of University in the Community,” featured speaker at the joint IIE Florida West Coast Chapter 91 and USF Chapter 897, April 1986 meeting.

“Capacity Utilization and Machine Sharing in a Group Technology Based Manufacturing System,” 8th Annual Conf. on Comp. & Industrial Engineering, Orlando, March 1986.
“A Microcomputer Based Design of a Cellular Manufacturing System,” presented at the 8th Annual Conf. on Comp. & Industrial Engineering, Orlando, FL, March, 1986.

“Machine Component Cluster Formation in Group Technology: An Occupancy Value Method,” 7th Annual Conf. on Comp. & Industrial Engineering, Orlando, March 1985.

“Analysis of Group Technology Based Flexible Manufacturing System,” 3rd International Conference on Computers and Industrial Engineering, Orlando, FL, March 1984.

“Layout of Landscaped Offices,” featured speaker at IIE Florida West Coast Chapter 91, October 1983 meeting.

“A Microcomputer Program to Assist in Plant Layout Design,” 2nd International Conference on Computers and Industrial Engineering, Orlando, FL, March 1983.

“Computer Assisted Plant Layout Using a Graphics Editor,” 2nd International Conference on Computers and Industrial Engineering, Orlando, FL, March 1983.

Professional Publications

“Online Retrieval of Material Handling Bibliography,” Project Report for College Industry Council on Material Handling Education, Material Handling Institute, Pittsburg, Pa., 1985.

“Industry University Cooperation through a Directed Studies Course,” The Word, IIE Newsletter of the Florida West Coast Chapter 91, March and April 1985.

“Simulation Analysis,” GTE Service Corp., 1984.

“SIMPL/I : A Simulation Language Based on PL/I,” Specification, Design, and User Manuals, Administrative Staff College of India, Hyderabad, India, June 1979.

“Vehicle Scheduling Package,” Users Manual, Administrative Staff College of India, Hyderabad, India, June 1977.

“Computer Modelling and Simulation,” Administrative Staff College of India, 1977.

“Simulation Languages,” Administrative Staff College of India, Hyderabad, India, 1977.

“Computers in Project Management,” Administrative Staff College of India, 1976.

Workshops and Seminars

Conducted 20 two/three-day workshops for Florida Department of Transportation on “Critical Path Methods” and “Project Management” in Tampa, Bartow and Deland during 1992-2007.

“Computer Simulation,” One-day course for Senior Managers of Inform Tech (PC manufacturer), Hong Kong, May 13, 1990.

“Advances in Computer Simulation,” GTE Service Corp., Tampa, Florida, November 1984 and March 1985.

“Seminar on Development Policy Analysis and Investment Decisions,” Sponsored by the Economic Development Institute of the World Bank, Hyderabad, India, January 1980.

“Construction Project Management,” one-week course at National Center for Consultancy and Management Development, Baghdad, Iraq, April 1979.

Contracts and Grants

“Evaluating the Benefits of Underground Utility Distribution,” Co-PI, Florida Dept. of Community Affairs, 1999-2001 (\$140,000).

“Application of AI Techniques to Production Systems,” PI, Centro Nacional de Pesquisa (CNPq), Brazil, 1994-2000 (\$156,000).

“Critical Path Methods based Project Scheduling,” Florida Dept of Transportation, PI, 1992-96 (\$42,725).

“Study of Mass Transit Inventory Management Practices,” Co-PI, Budget and Management Policy, Broward County, Ft Lauderdale, Florida, 1995 (\$10,000).

“Reliability Modeling of the Stabilization System for the Space Station,” PI, Florida Space Grant Consortium, April 1994 (\$5,000).

“Development and Implementation of Power Distribution Planning Models,” PI/Co-PI, Florida Power and Light Company, Juno Beach, Florida, 1991-92 (\$117,694).

“Computer Aided Software Engineering (CASE) within the Flight Simulator Environment,” PI, Florida High Technology and Industry Council, Tallahassee, Florida, 1988-91 (\$184,454).

“Short Course on Project Management,” PI, Florida Department of Transportation, September 1988, (\$7,187).

“Simulation Modeling of a Communication Network System,” PI, Paradyne Corporation, Largo, Florida, 1986-1987 (\$43,765).

Consulting Projects

Board of County Commissioners, Hillsborough County, Tampa, FL (2002)

Alternate relocation planning for continuity of government in case of emergency.

Reeves Southeastern Corporation, Tampa, FL (1997).

Analyzed drawing, weaving and galvanizing operations of the wire fence operations to minimize the changeover time, in-process inventory and breakdown times.

Organization of American States, Washington, D.C. (1991-92).

Advised Brazilian textile industries in the state of Santa Catarina on quality assurance and control, and developed and taught a course on facilities design.

GTE Data Services, Tampa, Florida (1987-88).

Statistical Analysis of Productivity Aspects of Software Development Projects.

Aero Engineered Systems Corporation, Tampa, Florida (1986).

Developed a simulation model to study the effect of alternate loading policies of various heating and air conditioning equipment of a power plant.

Material Handling Institute, Pittsburgh, Pennsylvania (1985).

Use of online database services for material handling bibliography retrieval.

Snack Master, Albany, Georgia (1984).

Developed a simulation model for their combos packaging line.

Professional Societies and Activities

Institute of Industrial Engineers (Fellow)

- Session chair, IIE Annual Conference, Atlanta, May 2005.
- Session chair “Automated Material Handling,” Seventh Industrial Engineering Research Conference, Banff, May 1998.
- Research Chair, Facilities Planning and Design Division, IIE, 1995-96.
- Track coordinator and Chair, Modeling in Service Industry (Track 22), 4th Industrial Engineering Research Conference, May 1995.
- Session chair “Material Flow System,” Third Industrial Engineering Research Conference, 1994
- Program Chair for Society of Manufacturing and Productivity Symposium, IIE Spring Conference, Toronto, May 1989.
- President, Florida West Coast Chapter 91, 1988-89.
- Exec. Vice-president, Florida West Coast Chapter 91, 1986-87.
- Director, Individual Dev. and University Liaison, FL West Coast Chapter 91, 1984-86.

Society of Manufacturing Engineers (Senior Member)

American Society of Engineering Education (Senior Member)

INFORMS (Member)

Sigma Xi (Full Member)

- President, Tampa Bay Chapter, 2005-07.
- Treasurer, Tampa Bay Chapter, 2004-05.
- Chair, Admissions Committee of USF Chapter, 1987-88.

Alpha Pi Mu - Faculty Advisor, USF Chapter, 1987-88, 1990-91.

Other Professional Activities

Evaluator, Industrial Engineering Programs, American Board of Engineering and Technology (ABET), 2005 - present

Associate Editor, International Journal of Modelling and Simulation, 2001 – present

Associate Editor, International Journal of Agile Manufacturing, 2000 – present.

Reviewer for NSF proposals in the Production Systems program, 1992, 1996.

Member, College Industry Council on Material Handling Engineering, Charlotte, Material Handling Institute, NC, 1992-95.

Reviewer for the following journals:

- IIE Transactions
- International Journal of Production Research
- Computers and Industrial Engineering
- IEEE Transactions on Engineering Management
- Journal of Operations Management
- Journal of Combinatorics, Information & System Sciences
- BioSystems
- Computers in Industry

External Examiner for Ph.D. students, 1992 - present

Department of Industrial and Systems Engineering

Federal University of Santa Catarina, Brazil.

Honors and Awards

- Elected Fellow of Institute of Industrial Engineers, 2004.
- Teaching Performance (TIP) Award, University of South Florida, 1993-94 and 1996-97.
- Outstanding Faculty Award, University of South Florida, IIE Student Chapter 897, 1984 and 1996.
- Outstanding Undergraduate Teaching Award, University of South Florida, 1990-91.
- Distinguished Service Award, Purdue University, School of Industrial Engineering, 1983.
- National Scholarship for Studies Abroad, Government of India, Ministry of Education, 1972-75.

University Service

University of Houston

- Member, Graduate and Professional Students Council, 2008 -
- Member, Graduate Programs Committee, 2008 -
- Chair, Graduate Standards Committee, Cullen College of Engineering, 2008 –
- Chair, Faculty Search Committee, Industrial Engineering, 2008.

- Member, College of Engineering Tenure & Promotion Committee, 2008 -

University of South Florida

- Faculty Athletic Representative (FAR), USF, 2006-2007.
- Chair, Computing Director's Committee, 2002- 2007.
- Member, Board of Trustees Workgroup on Academics and Campus Environment, 2004 – 2007.
- Member, Faculty Advisory Board, John S Daily Florida Institute of Government, 2004 – 2008.
- Member, Vice President for Research Search Committee, 2001.
- Member, Assoc V.P. for Diversity and Equal Opportunity, 2001.
- Vice President, Faculty Senate, USF, 1999-2001.
- Member, Academic Computing Committee, 1998- 2007.
- Member, Executive Committee, Faculty Senate, USF, 1998-1999.
- Member, Performance Evaluation Committee, USF, 1998-2000.
- Member, Institute on Black Life, Research Committee, 1996 – 2007.
- Member, Graduate Council, USF, 1995-97.
- Member, Instructional Technology Council, USF, 1995-96.
- Member, Optimizing Student Enrollment Committee, USF, 1995.
- Member, Provost and Exec. Vice President Search Committee, USF, 1994-95.
- Member, Sabbatical Committee, USF, 1990-92.
- Member, University Faculty Senate, USF, 1984-87.
- Member, Committee on Committees, USF, 1985-86.
- Member, USF 2000 Committee, 1985-86.

College of Engineering, University of South Florida

- Governance Committee: Member, 1988-89, 1990-93, Chair, 1993-94.
- Research Council: Vice-Chair, 1991-92, Chair, 1992-93.

Industrial & Management Systems Engineering, College of Engineering, USF

- Director, Graduate Manufacturing Program Committee, 1995-1998.
- Director, Course Scheduling, Faculty, Adjunct and TA assignment Committee, 1997-98.
- Director, Undergraduate Committee, 1983-86, 1990-92.
- Director, Graduate Committee, 1986-89.
- Director, Undergraduate Development Committee, 1992-93.
- Director, Faculty Search Committee, 1991-92.
- Director, Promotion & Tenure Committee, 1994-96.
- Member, Engineering Management Committee, 1993-1998.
- Member, Graduate Manufacturing Program Committee, 1993-95.
- Member, Graduate Committee, 1983-86, 1990-92.
- Member, Chair and Faculty Search Committees, 1984-88, 1994-95.

Community Service

- Captain and Judge for junior and high school Hillsborough Regional Science Fairs, 1990-2007.
- Captain and Judge Annual State Science and Engineering Fair, 1995 – 2007.
- Speaker, Great American Teach-In for area high schools, 1991- 2007.
- Judge, “YES – We Care,” program to encourage minority enrollment in science in engineering, 1994 – 2007.
- Judge SECME Olympiad, 1994.
- SAMES Annual Outreach Program, Discovery 1992.

Ph.D. Dissertation Supervision

- Cesar Malave, “Development of an Expert System for Robotic Work Station Control,” August, 1987 (Co-advisor with Dr. Del Kimbler).
- Dulio Furtado, “The Design of a Code Based Robotic Assemblability Index,” May 1988 (Co-advisor with Dr. Del Kimbler).
- Kelwyn D'Souza, “Modeling, Analysis and Performance Evaluation of a Computer Integrated Assembly Cell Using PetriNets,” Aug. 1991.
- Sharad Maheshawari, “Planning and Operational Control of Flexible Manufacturing Systems with Material Handling Considerations,” March 1992.
- Roberto Pacheco, “A Hybrid Intelligent System for Diagnosing and Solving Financial Problems,” March 1996 (Co-advisor with Dr. Ricardo Barcia).
- Paulo Borgess, “A Model of Strategic Games Based on the Iterated Prisoner’s Dilemma Employing Fuzzy Sets,” March 1996 (Co-advisor with Dr. Ricardo Barcia).
- Alejandro Martins, “Financial Statement Analysis: An Intelligent System Application,” March 1996 (Co-advisor with Dr. Ricardo Barcia).
- Marco Candido, “A Hybrid Genetic Approach to Solve Real Make-to-Order Job Shop Scheduling Problems,” February 1997 (Co-advisor with Dr. Ricardo Barcia).
- Rodrigo Cabral, “Distributed Virtual Environment to Analyze Long Term Personal Investment Strategies,” October 2002 (Co-advisor with Dr. Ricardo Barcia).
- Paulo Ambrozewicz, “Methodology for Training and Evaluation of Quality Management System at National Level for Construction Companies and Staff Based on PBQP-H and Distance Learning,” July 2003 (Co-advisor with Dr. Ricardo Barcia).

Masters Thesis Supervision

1. Daniel J. Burrow, “Automatic Guided Vehicles Dispatching,” May 1985.
2. Shahrukh A. Irani, “An Occupancy Value Heuristic for Machine-Component Cluster Formation in Group Technology,” August 1986.
3. Issac Thomas, “A Machine Tool Attribute Based Classification System,” Dec 1986.
4. Sameer A. Gangan, “Determination of Alternate Routes in a Flexible Manufacturing System,” January 1987.
5. R. Venkataramani, “Simulation Generator for Manufacturing Systems,” May 1987 (Co-adviser with Dr. Del Kimbler)
6. Kim Yong, “Modeling of a Communication Network,” May 1988.
7. Pradip Som, “Modeling of a Cooling Water System for Thermal Power Plants,” December 1988.
8. Mary Neswiacheny, “The Impact of Intelligent Buildings: A Telephone Analysis,”

- August 1989.
9. Anup Wagh, "CASE Tools: Impact on Software Productivity," December 1989.
 10. Rakesh Malhotra, "Software Design Methodologies in a Real Time Environment," December 1989.
 11. V. Sriram, "Testing Methodologies for Real Time Software Development," April 1992.
 12. S. Benmakhlouf, "Decision Control for Elevators in High Rise Buildings," Sept 1992.
 13. Arun Kashyap, "Tool Requirements Planning in an FMS Environment," Sept. 1992.
 14. Pranab Nayyar, "Operational Control of Multi-load AGVs in an FMS environment," September 1992.
 15. Anup Sarada, "Distribution Capacity Expansion at an Electric Utility: Adding New Feeders," August 1993.
 16. Carlos Saenz, "Capacity Planning for a Cellular Manufacturing System," April 1997.
 17. S. Tangirala, "Fuzzy Logic Based Controller for Elevators in High-rise Buildings," August 1997.
 18. K. Panpaliya, "Scheduling of Single Batch Processing Machines," May 1998.
 19. A. Dasgupta, "Effect of Variability in Activity Times on Project Duration and Resource Management," April 1999.
 20. A. Desai, "Path Calculation Heuristic for Multipath Routing in Computer Networks," August 2000.
 21. V. Rothe, "Dynamic Routing and Scheduling in Computer Networks," August 2001.
 22. Sagar Laghate, "A Comparative Study of Kanban, Conwip and Hybrid Manufacturing Control Systems," May 2002.
 23. Pradeep John, "Job Shop Scheduling Using Data Mining and Genetic Algorithm," May 2002.
 24. Mayuresh Unde, "Fuzzy Clustering Based Facility Layout," October 2002.
 25. Anand Babu, "Inventory Policy for a Production/Distribution Network with Non-identical Collaborating Retailers," December 2002.
 26. Rahul Adkar, "Routing Flexibilities in a Multistage Manufacturing System Using CONWIP Production Techniques," December 2002.
 27. V. Dixit, "Minimizing Mean Flow Time for Two Machine Flowshops," Dec. 2002.
 28. Mahesh Deshmukh, "Systems Dynamics Modeling of Agility in a Supply Chain," December 2002.
 29. Vikas Panchal, "Production Planning in Customer Focused Environment," May 2003.
 30. Chetan Vajre, "Systems Dynamics Approach to Managing Software Projects," May 2003.
 31. Bhushan Bhate, "Deadlock Detection and Resolution in Flexible Manufacturing Systems Using Colored Petri Net." June 2003 (Co-advisor with Dr. Yalcin).
 32. Sridhar Mohan, "Deadlock Avoidance in Mixed Capacity Flexible Manufacturing Systems," July 2004 (Co-advisor with Dr. Yalcin).
 33. Rishi Darira, "Modeling Demand Uncertainty and Processing Time Variability for Multi-Product Chemical Batch Process," July 2004 (Co-advisor with Dr. Sunol).
 34. Vaibhav Naik, "Fuzzy C-Means Clustering Approach to Design a Warehouse

- Layout,” July 2004.
35. Sachin Deokar, “Performance Evaluation of Multiple Product Kanban-Like Control Systems,” December 2004.
 36. Kapil Joshi, “A Simulation Modeling Approach to Airline Revenue Management,” December 2004.
 37. V. Bhide, “Strategies for Incident Management in an Urban Street Network,” April 2005.

Also served as a member of numerous Masters Theses and PhD dissertations committees.

Courses Taught

Undergraduate

- Production/Operations Management
- Industrial Systems Simulation
- Production Control
- Engineering Statistics
- Linear Systems
- Also, arranged and coordinated with local industry Senior Projects for more than 100 students during 1984-89.
- Manufacturing Processes
- Plant Facilities Design
- Deterministic Operations Research
- Engineering Economy

Graduate

- Industrial Systems Design
- Facilities Planning
- Production Control Systems
- Industrial Engineering Concepts
- Project Management
- Computer Simulation
- Manufacturing Systems Analysis
- Production/Operations Management
- Manufacturing Cost Analysis
- O. R. for Engineering Managers