R. Logen Logendran Professor School of Mechanical, Industrial, and Manufacturing Engineering 204 Rogers Hall Oregon State University Corvallis, OR 97331-6001 U.S.A.

> E-mail: Logen.Logendran@oregonstate.edu Web :<u>http://engr.oregonstate.edu/~logendrr</u> Phone : (541) 737-5239 Fax : (541) 737-5241



- Biographical Sketch
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BIOGRAPHICAL SKETCH

R. Logen Logendran is a Professor of Industrial and Manufacturing Engineering and Graduate Program Chair in the School of Mechanical, Industrial, and Manufacturing Engineering at Oregon State University, Corvallis, Oregon, USA. He received his Bachelor of Science Degree with honors in Mechanical Engineering from the University of Sri Lanka, Master of Engineering Degree (with thesis) in Industrial Engineering and Management from the Asian Institute of Technology, Thailand, and Ph.D. in Industrial Engineering and Management from Oklahoma State University. Dr. Logendran has co-edited a book titled Group Technology & Cellular Manufacturing: Methodologies and Applications, and has authored or coauthored more than 90 publications in archival journals, book chapters, and refereed conference proceedings. His publications have appeared in such journals as IIE Transactions, Journal of the Operational Research Society, European Journal of Operational Research, Journal of Scheduling, Journal of Computers and Operations Research, Journal of Robotics and Computer Integrated Manufacturing, Journal of Computers and Industrial Engineering, Journal of Engineering Education, International Journal of Production Research, International Journal of Production Economics, International Journal of Computer Integrated Manufacturing, International Journal of Flexible Automation and Integrated Manufacturing, International Journal of Systems Science, and Journal of Logistics and Transportation Review. His areas of research include cellular manufacturing, group scheduling, vehicle routing and scheduling, facilities layout and design, manufacturing simulation, and integration of design and manufacturing. His research has been supported by the National Science Foundation (NSF), Oregon Metals Initiative, Oregon Department of Transportation, TransNow, Port of Portland, Oregon Economic Development Agency, and industry. In 1996, he received the "Most Favorite Teacher of the Year" award by the IIE Student Chapter at Oregon State University. Prior to that, the IIE Student Chapter at Southern Illinois University in Edwardsville gave him the "Outstanding Industrial Engineering Faculty Member Award" in appreciation of excellence in teaching for 1987-88. Besides teaching, he has held research fellowship positions with various organizations, including Air Force Office of Scientific Research (AFOSR) - McClellan Air Force Base, Sacramento, CA; The Boeing Company, Everett, WA; and National Aeronautics and Space Administration (NASA) - Johnson Space Center, Houston, TX, and has made significant contributions aimed at solving industryrelevant problems. Dr. Logendran was a Fulbright Scholar at the University of Science, Malaysia in 2000. Currently he serves on the editorial board of the International Journal of Industrial and Systems Engineering, and has previously (1997-2008) served on the editorial board of the IIE Transactions on Design and Manufacturing.

Dr. Logendran is a Fellow of the Institute of Industrial Engineers (IIE), a Senior Member of the Society of Manufacturing Engineers (SME), a Member of the Institute for Operations Research and Management Sciences (INFORMS) and the American Society of Engineering Education (ASEE), and Faculty Advisor for the Alpha Pi Mu Industrial Engineering Honor Society at Oregon State University.

ACADEMIC POSITIONS

- Professor of Industrial and Manufacturing Engineering, Oregon State University
- Fulbright Scholar, University of Science (USM), Malaysia, 6/00 9/00

NONACADEMIC POSITIONS

- Summer Faculty Research Fellow, National Aeronautics and Space Administration (NASA) Johnson Space Center, Houston, TX, 6/97-8/97
- Boeing A.D. Welliver Summer Faculty Fellow, The Boeing Company, Seattle, WA, 6/96-8/96
- Summer Faculty Research Fellow, Air Force Office of Scientific Research (AFOSR) McClellan Air Force Base, Sacramento, CA, 6/95-9/95.
- Research Associate, Asian Institute of Technology (AIT), Thailand, 9/80-8/81
- Research Officer, Ceylon Institute of Scientific and Industrial Research, 1/77-9/78
- Mechanical Engineer, Sri Lanka Sugar Corporation, 2/76-12/76

HONORS AND AWARDS

- Elected Fellow of the Institute of Industrial Engineers (IIE), 2009.
- Marquis Who's Who in America, 56th Edition, New Providence, NJ, 2002.
- Fulbright Scholarship, University of Science, Malaysia, awarded by the Fulbright Commission in Washington, D.C. and Malaysia, June-September 2000.
- Summer Faculty Research Fellowship Award, National Aeronautics and Space Administration (NASA) Johnson Space Center, Houston, TX, June-August, 1997.
- "Most Favorite Teacher of the Year 1996," awarded by the IIE Student Chapter at Oregon State University.
- Boeing A.D. Welliver Fellowship Award, The Boeing Company, Seattle, WA., June-August, 1996.
- Summer Faculty Research Fellowship Award, Air Force Office of Scientific Research (AFOSR) McClellan Air Force Base, Sacramento, CA., June-August, 1995.
- "Outstanding Industrial Engineering Faculty Member in Appreciation of Excellence in Teaching for 1987-88," awarded by the IIE Student Chapter at Southern Illinois University at Edwardsville.
- Graduated with a straight A (4.0) GPA in all courses taken for the PhD degree received from the School of Industrial Engineering and Management at Oklahoma State University.
- Honorary award citation, for high standards of academic excellence, in the U.S. National Dean's List 1982-83.
- Full scholarship from Carl Duisberg-Gesselschaft, eV., Germany for pursuing MEng degree (with thesis) at the Asian Institute of Technology, Thailand.
- Ranked first in the First Examination in Engineering held at the University of Sri Lanka.

PROFESSIONAL ACTIVITIES

IIE Assistant Vice President of Student Development, Region 7 (November 2003-May 2006).

Editorial Board Member (EBM) of the Focused Issue of IIE Transactions on Design and Manufacturing (1997-2008).

Editorial Board Member (EBM) of the International Journal of Industrial and Systems Engineering.

Host Committee Chair, Student Coordination and Registration for the IIE Annual Conference, Portland, Oregon, May 18-21, 2003.

Member, Best Paper Award Selection Committee, IIE Transactions on Design and Manufacturing, 2003.

External Reviewer for the Graduate Program in Industrial Engineering at Texas Tech University, Lubbock, TX, April-May, 2006

Track Chair, Production Planning and Scheduling, Industrial Engineering Research Conference (IERC), Orlando, Florida, May 21-24, 2006.

Professional Societies

Institute of Industrial Engineers, Fellow

Society of Manufacturing Engineers, Senior Member

Institute for Operations Research and Management Science, Member

American Society for Engineering Education, Member

Alpha Pi Mu Industrial Engineering Honor Society, Member

Reviewer of Papers Submitted for Publication in Numerous International Journals

IIE Transactions

INFORMS Journal on Computing

European Journal of Operational Research

Naval Research Logistics

Annals of Operations Research

Journal of Computers and Operations Research Journal of Computers and Industrial Engineering Journal of Production and Operations Management Journal of Heuristics Journal of Intelligent Manufacturing Journal of Transportation Science Journal of Production Planning and Control Journal of Information Systems and Operations Research Journal of Engineering Design and Automation International Journal of Production Research International Journal of Production Economics International Journal of Intelligent Automation and Soft Computing International Journal of Flexible Automation and Integrated Manufacturing Journal of Information Systems and Operational Research International Journal of Industrial Engineering IEEE Transactions on Systems, Man, and Cybernetics **Transportation Science** Journal of Applied Stochastic Models and Data Analysis

Session Organizer and/or Chair in National/International Conferences

Session Organizer and Chair, Design of Manufacturing Cells, ORSA/TIMS Conference, Detroit, MI, October 23-26, 1994.

Session Chair, FMS/CIM (IV), 20th International Conference on Computers & Industrial Engineering, Kyongju, Korea, October 6-9, 1996.

Session Chair, Cellular Manufacturing, 21st International Conference on Computers & Industrial Engineering, San Juan, Puerto Rico, March 10-12, 1997.

Session Chair, Flexible Manufacturing, 6th Annual Industrial Engineering Research Conference (IERC), Miami Beach, FL, May 17-18, 1997.

Co-Panel Organizer and Co-Chair, Cellular Manufacturing: Is there a Gap between Theory and Practice? 7th Industrial Engineering Research Conference (IERC), May 9-10, Banff, Canada, 1998.

Session Organizer and Chair, Scheduling Applications, INFORMS Conference, Seattle, WA, October 25-28, 1998.

Session Chair, Plant Layout, INFORMS Conference, Philadelphia, PA, November 7-10, 1999.

Session Chair, Product and Process Design, 9th Annual Industrial Engineering Research Conference (IERC), Cleveland, OH, May 21-23, 2000.

Session Chair, Machine Scheduling, 9th Annual Industrial Engineering Research Conference (IERC), Cleveland, OH, May 21-23, 2000.

Session Chair, Facilities Planning and Design, INFORMS Conference, Miami, FL, November 4-7, 2001.

Session Chair, Machine Scheduling, 14th Annual Industrial Engineering Research Conference (IERC), Atlanta, GA, May 15-18, 2005.

Panel Reviewer, National Science Foundation

Committees, Commissions, Boards

Department of Industrial and Manufacturing Engineering

Graduate Program, Chair, 01/04-present

Graduate Program, Member, 9/89-9/91, 9/95-9/97, and 9/00-12/03

Undergraduate Program, Chair, 9/93-9/95 and 9/99-9/00

Undergraduate Program, Member, 9/91-9/93 and 9/97-9/99

Promotion and Tenure Committee, Chair, 9/06-9/08

Promotion and Tenure Committee, Member, 9/94-9/06

Mid-Tenure Committee, Chair, 1998, 2000, 2006

Faculty Search Committee, Member, 9/93-9/07

College of Engineering

Mechanics of Solids Committee, Member, 9/91-9/93

Awards and Recognition Committee, Member, 9/93-9/98

Faculty Search Committee (Mechanical Engineering), Member, 1998

Curriculum Committee for Graduate Course Development in System Design and Integration, *Member*, 01/03-06/03

University

Library Committee, Member, 9/92-9/95

Faculty Senate, Senator, 1/94-12/97

Graduate Program Review Committee, Member, Microbiology, 6/05

Faculty Advisor

Student Chapter of the Alpha Pi Mu Industrial Engineering Honor Society at OSU, 9/93-present.

PUBLICATIONS

Edited Book

"Group Technology & Cellular Manufacturing: Methodologies and Applications," Edited by A.K. Kamrani and R. Logendran, Gordon & Breach Publishers, Inc., Philadelphia, PA, 1998.

Book Chapter

Logendran, R., "Chapter 6 - Group Scheduling in Cellular Manufacturing Systems," "Group Technology & Cellular Manufacturing: Methodologies and Applications," A.K. Kamrani and R. Logendran (Editors), Gordon & Breach Publishers, Inc., Philadelphia, PA, 1998.

Technical Journals

- Gelogullari, C.A.and Logendran, R., "Group Scheduling Problems in Electronics Manufacturing," Journal of Scheduling, to appear, 2009.
- Salmasi, N., Logendran, R., and Skandari, R., "Total Flow Time Minimization in a Flowshop Sequence-Dependent Group Scheduling Problem," *Journal of Computers and Operations Research*, in press, 2009.
- Moon, I., Logendran, R. and Lee, J., "Integrated Assembly Line Balancing with Resource Restrictions, International Journal of Production Research, in press, 2009.
- Salmasi, N. and Logendran, R., "A Heuristic Approach for Multistage Sequence-Dependent Group Scheduling Problems," *Journal of Industrial Engineering International – Special Issue*, 4(7), 48-58, 2008.
- Logendran, R., McDonell, B. and Smucker, B., "Scheduling Unrelated Parallel Machines with Sequence-Dependent Setups," *Journal of Computers and Operations Research*, 34, 3420-3438, 2007.
- Shakeri, S. and Logendran, R., "A Mathematical Programming-Based Scheduling Framework for Multitasking Environments," *European Journal of Operational Research*, 176, 193-209, 2007.
- Parthanadee, P. and Logendran, R., "Periodic Product Distribution from Multi-Depots under Limited Supplies," *IIE Transactions*, 38(11), 1009-1026, 2006.
- Logendran, R. and Kriasaukul, T., "A Methodology for Solving the Unequal Area Facility Layout Problem Using Distance and Shape-Based Measures," *International Journal of Production Research*, 44(7), 1243-1272, 2006.
- Logendran, R., deSzoeke, P. and Barnard, F., "Sequence-Dependent Group Scheduling Problems in Flexible Flow Shops," *International Journal of Production Economics*, 102, 66-86, 2006.
- Logendran, R., Salmasi, N. and Sriskandarajah, C., "Two-Machine Group Scheduling Problems in Discrete Parts Manufacturing with Sequence-Dependent Setups." *Journal of Computers and Operations Research*, 33, 158-180, 2006.
- Logendran, R., Carson, S. and Hanson, E., "Group Scheduling in Flexible Flow Shops," *International Journal of Production Economics*, 96(2), 143-155, 2005.
- Logendran, R. and Subur, F., "Unrelated-Parallel Machine Scheduling with Job Splitting," *IIE Transactions*, 36(4), 359-372, 2004.
- Logendran, R. and Karim, Y., "Design of Manufacturing Cells in the Presence of Alternative Cell Locations and Material Transporters," *Journal of the Operational Research Society*, 54(10), pp. 1059-1075, 2003.
- Logendran, R., Gelogullari, C.A., and Sriskandarajah, C., "Minimizing the Mean Flow Time in a Two-Machine Group Scheduling Problem with Carryover Sequence Dependency," *Journal of Robotics and Computer Integrated Manufacturing*, 19, pp. 21-33, 2003.

- Logendran, R. and Sirikrai, V., "Machine Duplication and Part Subcontracting in the Presence of Alternative Cell Locations in Manufacturing Cell Design," *Journal of the Operational Research Society*, 51, pp. 609-624, 2000.
- Boer, M. and Logendran, R., "A Methodology for Quantifying Product Development Efforts," *IIE Transactions*, 31(4), pp. 365-378, 1999.
- Logendran, R., "A Methodology for Transferring the Research Experiences in Design and Scheduling of Cellular Manufacturing Systems," *Journal of Engineering Education*, 87(5), 507-509, 1998.
- Logendran, R. and Talkington, D., "Analysis of Cellular and Functional Manufacturing Systems in the Presence of Machine Breakdown," *International Journal of Production Economics*, 53, pp. 239-256, 1997.
- Logendran, R. and Sriskandarajah, C., "A Mathematical Modeling Approach for the Process of Part Orientation in Batch Assembly Systems," *International Journal of Computer Integrated Manufacturing*, 10(5), 335-345, 1997.
- Logendran R. and Sonthinen, A., "A Tabu Search-Based Approach for Scheduling Job-Shop Type Flexible Manufacturing Systems," *Journal of the Operational Research Society*, 48, 264-277, 1997.
- Logendran, R. and Ko, C.S., "Manufacturing Cell Formation in the Presence of Flexible Cell Locations and Material Transporters," *Journal of Computers and Industrial Engineering*, 33 (3-4), 545-548, 1997.
- Logendran, R. and Ramakrishna, P., "A Methodology for Dealing with Machine Duplication and Part Subcontracting in Cellular Manufacturing Systems," *Journal of Computers and Operations Research*, 24(2), 97-116, 1997.
- Logendran, R. and Sriskandarajah, C., "Sequencing of Robot Activities and Parts in Two Machine Robotic Cells," *International Journal of Production Research*, 34, 12, 3447-3463, 1996.
- Logendran, R., Mai, L. and Talkington, D., "Combined Heuristics for Bi-Level Group Scheduling Problems," *International Journal of Production Economics*, 38(2-3), pp. 133-145, 1995.
- Nam, S. and Logendran, R., "Modified Production Switching Heuristics for Aggregate Production Planning," *Journal of Computers and Operations Research*, 22, 5, pp. 531-541, 1995.
- Logendran, R. and Ramakrishna, P., "Manufacturing Cell Formation in the Presence of Lot Splitting and Multiple Units of the Same Machine," *International Journal of Production Research*, 33, 3, pp. 675-693, 1995.
- Logendran, R. and Ramakrishna, P., "Setting Up Disaggregated Manufacturing Cells in the Parts Manufacturing Plant," *International Journal of Flexible Automation and Integrated Manufacturing*, 2(4), pp. 351-364, 1994.
- Logendran, R., Ramakrishna, P. and Sriskandarajah, C., "Tabu Search-based Heuristics for Cellular Manufacturing Systems in the Presence of Alternative Process Plans," *International Journal of Production Research*, 32, 2, pp. 273-297, 1994.
- Logendran, R. and Sriskandarajah, C., "Two-Machine Group Scheduling Problem with Blocking and Anticipatory Setups," *European Journal of Operational Research - Special Issue on Cellular Manufacturing Systems*, 69, 3, pp. 467-481, 1993.
- Logendran, R., "A Binary Integer Programming Approach for Simultaneous Machine-Part Grouping in Cellular Manufacturing Systems," *Journal of Computers and Industrial Engineering*, 24, 3, pp. 329-336, 1993.
- Logendran, R., "Methodology for Converting a Functional Manufacturing System into a Cellular Manufacturing System," *International Journal of Production Economics*, 29, pp. 27-41, 1993.
- Nam, S. and Logendran, R., "Aggregate Production Planning A Survey of Models and Methodologies," *European Journal of Operational Research*, 61, 3, pp. 255-272, 1992.

- Logendran, R., "A Model for Duplicating Bottleneck Machines in the Presence of Budgetary Limitations in Cellular Manufacturing," *International Journal of Production Research*, 30, 3, pp. 683-694, 1992.
- Logendran, R. and Nudtasomboon, N., "Minimizing the Makespan of a Group Scheduling Problem: A New Heuristic," *International Journal of Production Economics*, 22, pp. 217-230, 1991.
- Logendran, R., "Effect of the Identification of Key Machines in the Cell Formation Problem of Cellular Manufacturing Systems," *Journal of Computers and Industrial Engineering*, 20, 4, pp. 439-449, 1991.
- Logendran, R., "Microcomputer Implementation of a Program Planning Network Using Simulation," International Journal of Systems Science, 22, 7, pp. 1219-1228, 1991.
- Logendran, R. and Terrell, M.P., "Capacitated Plant Location-Allocation Problems with Price Sensitive Stochastic Demands," *Journal of Logistics and Transportation Review*, 27, 1, pp. 33-53, 1991.
- Logendran, R., "Impact of Sequence of Operations and Layout of Cells in Cellular Manufacturing," *International Journal of Production Research*, 29, 2, pp. 375-390, 1991.
- Logendran, R., "Workload Based Model for Minimizing Total Intercell and Intracell Moves in Cellular Manufacturing," *International Journal of Production Research*, 28, 5, pp. 913-925, 1990.
- Logendran, R. and Terrell, M.P., "Uncapacitated Plant Location-Allocation Problems with Price Sensitive Stochastic Demands," *Journal of Computers and Operations Research*, 15, 2, pp. 189-198, 1988.
- Koelling, C.P. and Logendran, R., "Wastewater Treatment: Design and Optimization Using Nonlinear Search Techniques," *Journal of Computers and Operations Research*, 13, 1, pp. 69-84, 1986.
- Logendran, R. and Van Oudheusden, D.L., "Optimal Operation Arrangement for a Bi-Fuel Thermal Power Plant by mathematical Programming," *European Journal of Operational Research*, 8, 3, pp. 226-234, 1981.

Refereed Conference Proceedings

- Wang, L. and Logendran, R., "Application of Regression Trees in Travel Time Estimation," Proceedings (CD-ROM), 18th Annual Industrial Engineering Research Conference (IERC), Miami, FL, May 31-June 3, 2009.
- Wang, L. and Logendran, R., "Travel Time Estimation Using Regression Trees," *Proceedings* (CD-ROM), 17th Annual Industrial Engineering Research Conference (IERC), Vancouver, B.C., Canada, May 18-21, 2008.
- Gelogullari, C.A. and Logendran, R., "A Decomposition Approach with Inserted Idle Time Scheduling Problems in Group Scheduling," *Proceedings*, 6th International Conference on the Practice and Theory of Automated Timetabling, Brno, Czech Republic, August 30-September 3, 2006.
- Gelogullari, C.A. and Logendran, R., "Integer Programming Column Generation for the Group Scheduling Problems in Electronics Manufacturing," *Proceedings (CD-ROM)*, 15th Annual Industrial Engineering Research Conference (IERC), Orlando, FL, May 21-24, 2006.
- Salmasi, N. and Logendran, R., "A Branch-and-Price Approach for Multi-Stage Sequence-Dependent Group Scheduling Problems," *Proceedings (CD-ROM)*, 15th Annual Industrial Engineering Research Conference (IERC), Orlando, FL, May 21-24, 2006.
- Logendran, R., McDonell, B. and Smucker, B., "Unrelated Parallel Machine Scheduling with Sequence-Dependent Setups," *Proceedings (CD-ROM)*, 14th Annual Industrial Engineering Research Conference (IERC), Atlanta, GA, May 15-18, 2005.
- Gelogullari, C.A. and Logendran, R., "A Column Generation Algorithm for the Carryover Sequence Dependent Setups Group Scheduling Problems," *Proceedings (CD-ROM)*, 13th Annual Industrial Engineering Research Conference (IERC), Houston, TX, May 16-19, 2004.

- Salmasi, N. and Logendran, R., "A Lower Bounding Approach for Sequence- Dependent Group Scheduling Problems," *Proceedings (CD-ROM)*, 13th Annual Industrial Engineering Research Conference (IERC), Houston, TX, May 16-19, 2004.
- Logendran, R. and Gelogullari, C.A., "Efficient Lower Bounding Mechanisms for Group Scheduling in PCB Assembly Systems," *Proceedings (CD-ROM)* of the 2004 Annual NSF Grantees Conference, Dallas, TX, January 5-8, 2004.
- Logendran, R., Barnard, F. and Finlay, P., "Group Scheduling Problems in Sequence-Dependent Flexible Flowshops," *Proceedings (CD-ROM)*, 12th Annual Industrial Engineering Research Conference (IERC), Portland, OR, May 18-21, 2003.
- Gelogullari, C.A. and Logendran, R., "Minimizing the Mean Flow Time in a Two-Machine group Scheduling Problem with Carryover Sequence Dependency via Mathematical Programming," *Proceedings (CD-ROM)*, 12th Annual Industrial Engineering Research Conference (IERC), Portland, OR, May 18-21, 2003.
- Shakeri, S. and Logendran, R., "A Mathematical Model-Based Methodology for Scheduling Multiple Concurrent Tasks," *Proceedings (CD-ROM)*, 12th Annual Industrial Engineering Research Conference (IERC), Portland, OR, May 18-21, 2003.
- Proper, S., Tadepalli, P., Tang, H. and Logendran, R., "A Reinforcement Learning Approach for Product Delivery by Multiple Vehicles, *Proceedings (CD-ROM)*, 12th Annual Industrial Engineering Research Conference (IERC), Portland, OR, May 18-21, 2003.
- Logendran, R. and Sriskandarajah, C., "Scheduling Methodologies for Hardware Manufacturing Systems," *Proceedings (CD-ROM)* of the 2003 Annual NSF Grantees Conference, Birmingham, AL, January 6-9, 2003.
- Gelogullari, C.A., Logendran, R. and Sriskandarajah, C., "A Mixed Integer Linear-Programming Approach for Minimizing the Total Completion Time in a Two-Machine Group Scheduling Problem with Carryover Sequence Dependency," *Proceedings (CD-ROM)*, 6th International Conference on Engineering Design and Automation, Maui, Hawaii, August 4-7, 2002.
- Logendran, R., Carson, S. and Hanson, E., "Group Scheduling Problems in Flexible Flowshops," *Proceedings (CD-ROM)*, 11th Annual Industrial Engineering Research Conference (IERC), Orlando, FL, May 19-22, 2002.
- Parthanadee, P. and Logendran, R., "Multi-Product Multi-Depot Periodic Distribution Problem," *Proceedings (CD-ROM)*, 11th Annual Industrial Engineering Research Conference (IERC), Orlando, FL, May 19-22, 2002.
- Logendran, R. and Sriskandarajah, C., "Scheduling Methodologies for Electronics Manufacturing Systems," *Proceedings (CD-ROM)*, 2002 Annual NSF Grantees Conference, San Juan, Puerto Rico, January 7-10, 2002.
- Logendran, R. and Sriskandarajah, C., "Minimizing the Total Completion Time in a Two-machine Group Scheduling Problem with Carryover Sequence Dependency," *Proceedings* of the Operations Research Society of New Zealand (ORSNZ), Christchurch, New Zealand, pp. 192-203, November 29 – December 1, 2001.
- Shakeri, S., Logendran, R. and Funk, K., "A Methodology for Managing Multiple Concurrent Tasks in Real-Time," *Proceedings (CD-ROM)*, 10th Annual Industrial Engineering Research Conference (IERC), Dallas, TX, May 20-22, 2001.
- Logendran, R. and Sriskandarajah, C., "Minimizing the Weighted Tardiness in a Two-Machine Flowshop Scheduling Problem with Blocking and Anticipatory Setups," *Proceedings (CD-ROM)*, 9th Annual Industrial Engineering Research Conference (IERC), Cleveland, OH, May 21-23, 2000.
- Logendran, R. and Saputra, H., "Real-Time Scheduling of Jobs with Sequence-Dependent Setups on Unrelated-Parallel Machines," *Proceedings (CD-ROM)*, 8th Annual Industrial Engineering Research Conference (IERC), Phoenix, AZ, May 23-25, 1999.

- Logendran, R. and Subur, F., "Real-Time Scheduling with Job-Splitting on Unrelated Parallel Machines," *Proceedings (CD-ROM)*, 7th Annual Industrial Engineering Research Conference (IERC), Banff, Canada, May 9-10, 1998.
- Boer, M. and Logendran, R., "Models to Assist in the Development of Electro-Mechanical Assemblies at Company X," *Proceedings*, 6th Annual Industrial Engineering Research Conference (IERC), Miami, FL, pp.438-443, May 17-18, 1997.
- Logendran, R. and Puvanunt, V., "Duplication of Machines and Subcontracting of Parts in the Presence of Alternative Cell Locations," *Proceedings*, 21st International Conference on Computers & Industrial Engineering, San Juan, Puerto Rico, pp. 235-238, March 10-12, 1997.
- Bishop, R.H., Castillo, S.P., Kapania, R.K., Logendran, R., Mouch, T.N., Oliver, J.H., Pacey, D.A., Rodriguez, A.A., Savas, O., Syrmos, V.L. and Talreja, R.R., "Engineering Education: A Vision for Change," *Proceedings*, 1996 World Aviation Congress, Los Angeles, CA, pp. 1-20, October 21-24, 1996.
- Logendran, R. and Karim, Y., "Consolidating the Machines in the Existing Functional Manufacturing System for Setting Up Manufacturing Cells in A-Bay at McClellan AFB," *Proceedings*, 5th Annual Industrial Engineering Research Conference (IERC), Minneapolis, MN, pp. 25-30, May 18-20, 1996.
- Logendran, R., "Design and Scheduling of Cellular Manufacturing Systems," *Proceedings*, Annual Conference of the American Society for Engineering Education, Anaheim, CA, pp. 2101-2105, June 25-28, 1995.
- Logendran, R. and Talkington, D., "A Simulation Analysis of Cellular and Functional Layouts," *Proceedings*, 4th Annual Industrial Engineering Research Conference (IERC), Nashville, TN, pp. 521-527, May 21-25, 1995.
- Logendran, R. and Sriskandarajah, C., "Process of Part Orientation with Single- and Multiple Steps Via Mathematical Programming," *Proceedings*, 4th Annual Industrial Engineering Research Conference (IERC), Nashville, TN, pp. 1101-1106, May 21-25, 1995.
- Logendran, R., "On the Development, Design and Scheduling of Cellular Manufacturing Systems," *Proceedings*, 21st Annual NSF Grantees Conference on Design, Manufacturing and Industrial Innovation, San Diego, CA, pp. 277-278, January 4-6, 1995.
- Logendran, R., "Effect of Cell Locations in the Duplication Process of Cellular Manufacturing Systems," *Proceedings*, 5th International Symposium on Robotics and Manufacturing: Research, Education, and Applications (ISRAM '94), Maui, Hawaii, pp. 619-622, August 14-18, 1994.
- Logendran, R., Mai, L. and Talkington, D., "Performance Evaluation of Group Scheduling Heuristics," *Proceedings*, 16th International Conference on Computers and Industrial Engineering, Ashikaga, Japan, pp. 168-170, March 7-9, 1994.
- Logendran, R., "Models and Methodologies for Cellular Manufacturing Systems," *Proceedings*, 20th Annual NSF Grantees Conference on Design and Manufacturing Systems Research, Boston, MA, pp. 347-348, January 5-7, 1994.
- Logendran, R. and Ramakrishna, P., "An Integrated Approach for Creating Disconnected Manufacturing Cells," *Proceedings*, 2nd Annual Industrial Engineering Research Conference (IERC), Los Angeles, CA, pp. 192-196, May 26-27, 1993.
- Logendran, R. and Ramakrishna, P., "Effect of Machining Time in the Duplication Process of machine cells Formation," *Proceedings*, 15th Conference on Computers and Industrial Engineering, Cocoa Beach, FL, pp. 29-32, March 8-10, 1993.
- Logendran, R., "A Three-Phase Methodology for the Design of Cellular Manufacturing Systems," *Proceedings*, 19th Annual NSF Grantees Conference on Design and Manufacturing Systems Research, Charlotte, NC, January 6-8, pp. 1125-1128, 1993.

- Logendran, R. and Ramakrishna, P., "A Generalized Approach for Manufacturing Cell Design," *Proceedings*, 23rd Annual Meeting of the Decision Sciences Institute, San Francisco, CA, November 22-24, pp. 1179, 1992.
- Logendran, R. and Sriskandarajah, C., "Group Scheduling Problem in a Flowshop with Blocking," *Proceedings*, International Conference on Manufacturing Automation, Hong Kong, pp. 848-853, August 10-12, 1992.
- Logendran, R., Ramakrishna, P. and Sriskandarajah, C., "A Higher Level Heuristic for the Selection of Machines and Process Plans in Cellular Manufacturing," *Proceedings*, 1992 Summer Computer Simulation Conference, Reno, NV, pp. 1103-1107, July 27-30, 1992.
- Logendran, R., Ramakrishna, P. and Sriskandarajah, C., "Design of Manufacturing Cells Via Tabu Search," *Proceedings*, 2nd International Conference on Flexible Automation and Information Management, Falls Church, VA, pp. 633-644, June 30-July 2, 1992.
- Logendran, R., "Simultaneous Machine-Part Grouping Approach in Manufacturing Cells," *Proceedings*, 14th Conference on Computers and Industrial Engineering, Cocoa Beach, FL, pp. 77-80, March 9-11, 1992.
- Logendran, R., "Group Scheduling Problem: Key to Flexible Manufacturing Systems," *Proceedings*, 14th Conference on Computers and Industrial Engineering, Cocoa Beach, FL, pp. 113-116, March 9-11, 1992.
- Logendran, R., "Effect of Alternative Process Plans in Manufacturing Cell Design: Complexity Issues," *Proceedings*, 18th Annual NSF Grantees Conference on Design and Manufacturing Systems Research, Atlanta, GA, pp. 885-889, January 8-10, 1992.
- Logendran, R. and West, T.M., "A Comparison of Methodologies for Efficient Part-Machine Cluster Formation," *Proceedings*, 13th Conference on Computers and Industrial Engineering, Orlando, FL, pp. 285-289, March 11-14, 1991.
- Logendran, R., Nudtasomboon, N. and Magnuson, D., "A Methodology for Implementing a Cellular Manufacturing System in the Parts Manufacturing Plant," *Proceedings*, Joint International Conference on Factory Automation and Information Management, Limerick, Ireland, pp. 828-839, March 13-15, 1991.
- Logendran, R. and West, T.M., "A Machine-Part Based Grouping Algorithm in Cellular Manufacturing," *Proceedings*, 12th Conference on Computers and Industrial Engineering, Orlando, FL, pp. 57-61, March 12-14, 1990.
- Logendran, R. and Terrell, M.P., "Program Planning and Development of a National University Teleconference Network Using Simulation," *Proceedings*, Winter Simulation Conference, Washington, D.C., pp. 776-785, December 8-10, 1986.
- Eldin, H.K. and Logendran, R., "Economic Model for Metric Conversion Investment," *Proceedings*, IEEE International Large Scale Systems Symposium, Virginia Beach, VA, pp. 202-205, October 11-13, 1982.

Reports and Others

- Logendran, R. and Wang, L., "Dynamic Travel Time Estimation Using Regression Trees," Final Report for the Oregon Department of Transportation, September 2008.
- Logendran, R., "Urban Commodity Flow Data Collection and Analysis Using Global Positioning Systems," Final Report for the Port of Portland, May 2006.
- Logendran, R., "Scheduling Methodologies for Electronics and Hardware Manufacturing," Final Report for the National Science Foundation, September 2005.
- Logendran, R., "Scheduling Methodologies for Electronics and Hardware Manufacturing," Third Year Progress Report for the National Science Foundation, September 2004.

- Logendran, R., "Scheduling Methodologies for Electronics and Hardware Manufacturing," Second Year Progress Report for the National Science Foundation, September 2003.
- Logendran, R., "Scheduling Methodologies for Electronics and Hardware Manufacturing," First Year Progress Report for the National Science Foundation, March 2002.
- Logendran, R., "Applications of Manufacturing Modeling Techniques to Industry-Relevant Problems in Design and Scheduling," Final Report for the Fulbright Commission, Kuala Lumpur, Malaysia, September 2000.
- Logendran, R., "Scheduling Methodologies for Manufacturing Operations," Final Report for the NASA/ASEE Summer Faculty Fellowship Program, Sponsored by NASA-Johnson Space Center, Houston, TX, August 1997.
- Logendran, R., "Design and Scheduling of Cellular Manufacturing Systems," Final Report for the National Science Foundation, May 1996.
- Logendran, R., "An Investigation into Consolidating the Machines in A and C Bays for Setting up Manufacturing Cells in A-Bay at McClellan Air Force Base," Final Report for the Summer Faculty Research Program, Sponsored by the Air Force Office of Scientific Research, Bolling Air Force Base, Washington, D.C., and McClellan Air Force Base, Sacramento, CA, September 1995.
- Logendran, R., "Economies of Production Through Duplicating Bottleneck Machines and Subcontracting Bottleneck Parts in Cellular Manufacturing," Final Report for the National Science Foundation, April 1994.
- Logendran, R., "Economies of Production Through Duplicating Bottleneck Machines and Subcontracting Bottleneck Parts in Cellular Manufacturing," First Year Progress Report for the National Science Foundation, September 1992.
- Logendran, R., "Workload Based Model for Minimizing Total Moves Contributed by Both Intercell and Intracell Moves in Cellular Manufacturing," Final Research Report for the Fourth Quarter Research Fellowship awarded at Southern Illinois University at Edwardsville, September 1989.
- Logendran, R., "Mechanical Fiber Aligner for Carpeting Concepts," Final Report for the Center for Advanced Manufacturing and Production at Southern Illinois University at Edwardsville, August 1987.
- Logendran, R., "Single Product Multi-Period Plant Location-Allocation Problems with Price Sensitive Demand," Final Research Report for the Fourth Quarter Research Fellowship awarded at Southern Illinois University at Edwardsville, October 1986.
- Logendran, R., "Plant Location-Allocation Problems with Price Sensitive Stochastic Demands," Unpublished Ph.D. Dissertation, Oklahoma State University, 1984.
- Adulbhan, P., Tabucanon, M.T., Tang, J.C.S., Logendran, R. and Acio, E.C., "The Role of Japanese Joint Ventures in the Development of the Automobile Industry in Thailand," Final Research Report for the Japan Foundation, Asian Institute of Technology, Bangkok, Thailand, March 1981.
- Logendran, R., "A Quantitative Model for Optimal Operation Arrangement of a Bi-Fuel Thermal Power Plant," Unpublished M.Eng. Thesis, Asian Institute of Technology, 1980.

Conference Presentations

- Wang, L., Logendran, R. "Speed as a Proxy in Travel Time Estimation Using Regression Trees," presented at the Fall INFORMS Conference, Washington, D.C, October 12-15, 2008.
- Wang, L., Logendran, R. and Zhang, L., "Travel Time Estimation," presented at the Fall INFORMS Conference, Seattle, WA, November 4-7 2007.

- Mbugua, W. and Logendran, R., "Unequal Area Facility Layout: Location and Territorialization, presented at the 16th Annual Industrial Engineering Research Conference (IERC), Nashville, TN, May 19-23, 2007.
- Gelogullari, C.A. and Logendran, R., "Tabu Search Heuristics for the Group Scheduling Problems in PCB Manufacturing," presented at the INFORMS Conference, Pittsburgh, PA, November 5-8, 2006.
- Gelogullari, C.A. and Logendran, R., "Decomposition Based Lower Bounds for the Three Machine Group Scheduling in PCB Manufacturing," presented at the INFORMS Conference, San Francisco, CA, November 13-16, 2005.
- Salmasi, N. and Logendran, R., "Minimization of Makespan in Multi-Stage Group Scheduling Problems with Sequence-Dependent Setups," presented at the INFORMS Conference, San Francisco, CA, November 13-16, 2005.
- Parthanadee, P. and Logendran, R., "A Multi-Product, Multi-Depot Periodic Distribution Problem under Limited Supply Environment," presented at the INFORMS Conference, San Francisco, CA, November 13-16, 2005.
- Peterson, C., Helvie, D., Logendran, R., Puthpongsiriporn, T. and Billo, R., "Collection and Analysis of Commodity Movement Data Using Global Positioning Systems," presented at the INFORMS Conference, San Francisco, CA, November 13-16, 2005.
- Gelogullari, C.A. and Logendran, R., "Three Machine Group-Scheduling Problems in PCB Manufacturing," presented at the INFORMS Conference, Denver, CO, October 24-27, 2004.
- Gelogullari, C.A. and Logendran, R., "Tight Lower Bounds for Group Scheduling Problems in Printed Circuit Board Manufacturing," presented at the Conference of the British Operations Research Society, York, United Kingdom, September 7-9, 2004.
- Salmasi, N. and Logendran, R., "Multi-Stage Group Scheduling Problems in Hardware Manufacturing," presented at the INFORMS Conference, Atlanta, GA, October 26-29, 2003.
- Logendran, R., Salmasi, N. and Sriskandarajah, C., "Two Machine Group Scheduling Problem with Sequence-Dependent Setup Times," presented at the 5th International Congress on Industrial and Applied Mathematics, (ICIAM), Sydney, Australia, July 7-11, 2003.
- Logendran, R., Salmasi, N. and Sriskandarajah, C., "Group Scheduling Problems in Hardware Manufacturing," presented at the INFORMS Conference, San Jose, CA, November 17-20, 2002.
- Logendran, R. and Sriskandarajah, C., "Group Scheduling Problems in Electronics Manufacturing," presented at the INFORMS Conference, Miami Beach. FL, November 4-7, 2001.
- Logendran, R. and Karim, Y., "Impact of Automated Guided Vehicles in the Design of Cellular Systems," presented at the INFORMS Conference, Philadelphia, PA, November 7-10, 1999.
- Logendran, R. and Capps, C.H., "Methodology for Scheduling the Placement of Components in Circuit Board Assembly," presented at the INFORMS Conference, Seattle, WA, October 25-28, 1998.
- Logendran, R. and Karim, Y., "Effect of Alternative Cell Locations and Material Transporters in the Design of Manufacturing Cells," presented at the INFORMS Conference, Dallas, TX, October 26 - 29, 1997.
- Logendran, R. and Sonthinen, A., "Scheduling of General Flexible Machining Systems: A New Approach," presented at the INFORMS Conference, New Orleans, LA, October 29 November 1, 1995.
- Logendran, R., "A Systematic Approach to Manufacturing Cell Design," presented at the ORSA/TIMS Conference, Detroit, MI, October 23-26, 1994.
- Logendran, R., Mai, L. and Talkington, D., "Single-Pass Vs. Multiple-Pass Heuristics for Group Scheduling Problems," presented at the ORSA/TIMS Conference, Phoenix, AZ, October 31-November 3, 1993.

- Logendran, R. and Ramakrishna, P., "A Realistic Approach to the Cell Formation Problem in Cellular Manufacturing," presented at the ORSA/TIMS Conference, San Francisco, CA, November 1-4, 1992.
- Logendran, R. and Sriskandarajah, C., "A Multi-Stage Group Scheduling Problem with Blocking and Anticipatory Setups," presented at the 1992 Canadian Operations Research Society Conference (CORS), Toronto, Canada, June 1-3, 1992.
- Logendran, R., "Economic Considerations of Machine Duplication in Manufacturing Cells," presented at the ORSA/TIMS Conference, Anaheim, CA, November 3-6, 1991.
- Logendran, R., "Impact of Sequence of Operations and Layout of Cells in Cellular Manufacturing," presented at the ORSA/TIMS Conference, Philadelphia, PA, October 28-31, 1990.
- Logendran, R., "Workload Based Model for Minimizing Total Moves Contributed by Both Intercell and Intracell Moves in Cellular Manufacturing," presented at the International ORSA/TIMS/CORS Conference, Vancouver, B.C., Canada, May 7-10, 1989.
- Logendran, R., "Microcomputer Implementation of a Program Planning Network Using Simulation," presented at the ORSA/TIMS Conference, Denver, CO, October 23-26, 1988.

RESEARCH AND EDUCATIONAL GRANTS, FELLOWSHIPS, AND SCHOLARSHIPS

Oregon State University

"Scheduling and Rescheduling of Metal Pipes," *Principal Investigator*, Jointly funded by the Oregon Metals Initiative (OMI) and Northwest Pipe Company, 1 year, September 15, 2008 to September 14, 2009.

"Dynamic Travel Time Estimation Using Regression Trees," *Principal Investigator*, Oregon Department of Transportation, 1 Year, October 1, 2007 to September 30, 2008.

"Dynamic Travel Time Estimation Using Regression Trees," *Principal Investigator*, Oregon Department of Transportation, 1¹/₄ Years, July 1, 2006 to September 30, 2007 (with P. Tadepalli and R. Bertini).

"Urban Commodity Flow Data Collection and Analysis Using Global Positioning Systems," *Principal Investigator*, TransNow, 1¹/₂ years, September 1, 2004 to February 28, 2006 (with T. Puthpongsiriporn and R. Billo).

"Urban Commodity Flow Data Collection and Analysis Using Global Positioning Systems," *Principal Investigator*, Port of Portland, 1¹/₂ years, September 1, 2004 to February 28, 2006 (with T. Puthpongsiriporn and R. Billo).

"Economic Development in Western Oregon through the National Center for MultiScale Materials and Devices," *Co-Principal Investigator*, Oregon Economic Development Agency, 1 year, April 1, 2004 to March 31, 2005 (with R. Billo, B. Paul, and S. Atre).

"Incorporating Risk and Uncertainty in a First Course in Engineering Economy," *Co-Principal Investigator*, Hewlett-Foundation, 1 year, July 1, 2004 – June 30, 2005 (with D. Kim, D. Jensen, and J. Shea).

"Scheduling Methodologies for Electronics and Hardware Manufacturing – International Travel Supplement," *Principal Investigator*, National Science Foundation, 2 years, July 1, 2002 to June 30, 2004, Grant No. DMI-0010118.

"Scheduling Methodologies for Electronics and Hardware Manufacturing - Research Experiences for Undergraduates (REU)," *Principal Investigator*, National Science Foundation, 2 years, July 1, 2002 to June 30, 2004, Grant No. DMI-0010118.

"Scheduling Methodologies for Electronics and Hardware Manufacturing – Research Experiences for Undergraduates (REU)," *Principal Investigator*, National Science Foundation, 2 years, July 1, 2001 to June 30, 2003, Grant No. DMI-0010118.

"Scheduling Methodologies for Electronics and Hardware Manufacturing," *Principal Investigator*, National Science Foundation, 3 years, July 1, 2001 to June 30, 2004, Grant No. DMI-0010118.

Fulbright Scholarship, University Science Malaysia (USM), 6/00 – 9/00, Fulbright Commission, Washington D.C. and Kuala Lumpur, Malaysia.

"Multi-Disciplinary Center for Computational Methods in Electronics Manufacturing," *One of Five Principal Investigators*," Rickert Foundation, College of Engineering, Oregon State University, 1 year, July 1, 1999 to June 30, 2000 (with B. D'Ambrosio, P.Tadepalli, B. Paasch, and D. Jensen).

"Design and Scheduling of Modern Manufacturing Systems," *Principal Investigator*, Statewide Effort to Enhance Graduate Education in Engineering and Computer Science - Senate Bill 504, 1 year, July 1, 1998 - June 30, 1999.

Summer Faculty Research Fellowship, National Aeronautics and Space Administration (NASA) - Johnson Space Center, Houston, TX, 6/97-8/97.

Boeing - A.D. Welliver Summer Faculty Fellowship, The Boeing Company, Seattle, WA, 6/96-8/96.

Summer Faculty Research Fellowship, Air Force Office of Scientific Research (AFOSR) - McClellan Air Force Base, Sacramento, CA, 6/95-9/95.

"Quantifying Relationships Between the Measures Characterizing Product Design for Manufacturability/Assembly (DFMA) and Product Development Project Success (PDPS) to Facilitate Design Decisions," *Principal Investigator*, The Hewlett-Packard Company, 1¹/₂ years, June 15, 1996 to December 31, 1997, Grant No. J0290A.

"Design and Scheduling of Cellular Manufacturing Systems," *Principal Investigator*, National Science Foundation, 1 year, August 1, 1994 to July 31, 1995, Grant No. DMI-9400007.

"Economies of Production Through Duplicating Bottleneck Machines and Subcontracting Bottleneck Parts in Cellular Manufacturing - Research Experiences for Undergraduates (REU)," *Principal Investigator*, National Science Foundation, 2 years, January 1, 1993 to December 31, 1994, Grant No. DDM-9108507.

"Manufacturing Resource Planning in Production Control," *Principal Investigator*, Society of Manufacturing Engineers, 1 year, June 1, 1992 to May 31, 1993, Grant No. 592-1633.

"Economies of Production Through Duplicating Bottleneck Machines and Subcontracting Bottleneck Parts in Cellular Manufacturing," *Principal Investigator*, National Science Foundation, 2 1/2 years, July 15, 1991 to December 31, 1993, Grant No. DDM-9108507.

"Implementing a Cellular Manufacturing System in the Parts Manufacturing Plant," *Principal Investigator*, Freightliner Corporation, Portland, OR, 1 year, June 15, 1990 to June 14, 1991.

Southern Illinois University at Edwardsville (SIUE)

"Workload Based Model for Minimizing Total Moves Contributed by Both Intercell and Intracell Moves in Cellular Manufacturing," *Principal Investigator*, Fourth Quarter Research Fellowship Award, 3 months, June 15, 1989 to September 15, 1989.

Received an award in the research equipment and research tools competition held by the Graduate School Office of Research and Projects, *Principal Investigator*, May 1989.

"Plant Location-Allocation Problems with Price Sensitive Stochastic Demands in the Presence of Configuration Constraints," *Principal Investigator*, University Recognized Research (URR) Award, 10 months, November 1, 1988 to August 31, 1989, Grant No. 882EN47.

"Work Flow Analysis and Mechanical Fiber Aligner," *Principal Investigator*, for Carpeting Concepts Mid-America, Inc., Mascoutah, IL, Supported by the Center for Advanced Manufacturing and Production (CAMP) at SIUE, 9 months, September 15, 1986 to June 15, 1987.

"Single Product Multi-Period Plant Location-Allocation Problems with Price Sensitive Demands," *Principal Investigator*, Fourth Quarter Research Fellowship Award, 3 months, June 15, 1986 to September 15, 1986.

"Design and Implementation of a Production Control System," *Co-Principal Investigator*, for Ashford Industries, Inc., East St. Louis, IL, Supported by CAMP at SIUE, 6 months, January 1, 1986 to June 30, 1986 (with J. Van Roekel).

INVITED TALKS, SEMINARS, AND SHORT COURSE

- Logendran, R., "Effect of Alternative Cell Locations and Material Transporters (AGVs) in the Design of Manufacturing Cells," School of Industrial and Systems Engineering, Asian Institute of Technology, Bangkok, Thailand, August 28, 2000.
- Logendran, R., "Issues in Dealing with Bottleneck Machines and Bottleneck Parts in the Design of Manufacturing Cells," Business and Advance Technology Center (BATC), University Technology Malaysia (UTM), Kuala Lumpur, Malaysia, August 22, 2000.
- Logendran, R., Taught a two-day short course for practicing engineers on Design and Scheduling of Cellular Manufacturing Systems, Penang, Malaysia, August 16-17, 2000.
- Logendran, R., "Impact of Alternative Process Plans and Alternative Machine Options in the Design of Manufacturing Cells," Multimedia University (MMU), Melaka, Malaysia, August 4, 2000.
- Logendran, R., "Impact of Alternative Process Plans and Alternative Machine Options in the Design of Manufacturing Cells," School of Mechanical Engineering, University Science Malaysia, Tronoh, Malaysia, July 5, 2000.
- Logendran, R., "Issues in Dealing with Bottleneck Machines and Bottleneck Parts in the Design of Manufacturing Cells," School of Business, University of Texas, Dallas, Texas, April 2, 1999.
- Logendran, R., "Design of Cellular Manufacturing Systems," Department of Industrial Engineering, Kyungsung University, Pusan, Korea, October 10, 1996.
- Logendran, R., "Designing Manufacturing Cells in Cellular Manufacturing Systems: Key to Flexible Manufacturing," Department of Industrial Engineering, University of Toronto, Toronto, Canada, July 3, 1991.

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