

Alberto Garcia-Diaz

<http://web.utk.edu/~ie/garcia.htm>

Present Position

Professor, Department of Industrial & Information Engineering
The University of Tennessee, Knoxville
ESH 410
Knoxville, TN 37996-0700

Citizenship: U.S.A.

Professional Interests

- Operations Research
- Network Flow Optimization
- Statistical Design of Experiments
- Transportation and Logistics
- Bridge and Pavement Management Systems
- Facilities Planning

EDUCATION

- Ph.D., Industrial Engineering, University of Illinois at Urbana-Champaign, 1978.
- M.S., Industrial Engineering, University of Illinois at Urbana-Champaign, 1973.
- B.S., Industrial Engineering, Industrial University of Santander, Colombia, 1970.

EXPERIENCEAcademic-Administrative

- Associate Dean for Academic Affairs, College of Engineering, The University of Tennessee, Knoxville, August 1, 2005 - June 30, 2008.
- Interim Department Head, Department of Industrial & Information Engineering The University of Tennessee, Knoxville, October 1, 2006 - May 7, 2008.
- Associate Department Head, Department of Industrial and Systems Engineering, Texas A&M University, August 2000 to April 2004.
- Director of Undergraduate Program, Department of Industrial and Systems Engineering, Texas A&M University, June 2000 to July 2005.
- Department Head, Industrial Production Department (now Industrial Engineering

Department), Industrial University of Santander, Colombia, August 1974 - August 1975.

Academic-Teaching

- Professor, Department of Industrial & Information Engineering, The University of Tennessee, Knoxville, August 1, 2005, to present.
- Professor, Department of Industrial and Systems Engineering, Texas A&M University, September 1, 1987- July 31, 2005.
- Associate Professor of Industrial and Systems Engineering, Texas A&M University, September 1, 1983 to August 31, 1987.
- Assistant Professor of Industrial and Systems Engineering, Texas A&M University, August 31, 1978 to August 31, 1983.
- Assistant Professor, Industrial University of Santander, Colombia, August 1974 to August 1975; February 1973 to February 1974.

Academic-Research

- Research Engineer, Texas Transportation Institute, September 1, 1987 to July 31, 2005. Associate Research Engineer, Texas Transportation Institute, September 1, 1983 to August 31, 1987. Assistant Research Engineer, Texas Transportation Institute, August 31, 1979 to August 31, 1983.
- Research and Teaching Assistant, Department of Mechanical and Industrial Engineering, University of Illinois, August 1975 to August 1978.

Industrial

Supervisor of the Compensation, Plans and Benefits Section, Department of Industrial Relations, Refinery of Cartagena (Colombia), International Petroleum Company (EXXON) and Colombian Petroleum Company (ECOPETROL), 1974.

Consulting

- Consultant for *Midcon Corporation* (A subsidiary of Occidental Petroleum), 3200 Southwest Freeway, Suite 300, Houston, Texas 77001, September 1989 - December 1990. The purpose of this work was to develop and computerize generalized network procedures for achieving minimal distribution costs in a large-scale gas delivery problem.
- Consultant for Resource International Inc., Engineering Consultants, 281 Enterprise Drive, Columbus, Ohio 43081, August 1985. The objective of this work was to

develop a methodology for determining the most cost effective course of action for each bridge in a transportation system.

- Industrial consultant for Watkins Motor Lines, Inc., P.O. Box 1936, Lakeland, Florida 33802, June 1983 to November 1983. The objective of this work was to investigate relationships to forecast stop times for pick-up and delivery operations.
- Industrial consultant for Watkins Motor Lines, Inc., P.O. Box 1936, Lakeland, Florida 33802, October 1982 to March 1983. The objective of this work was to develop functional relationships between total direct platform handling time per shipment and total weight, number of pieces, and weight per piece.
- Research Assistant in Management Information Systems for the generation of energy reports, Construction Engineering Research Laboratory of the U.S. Army, Champaign, Illinois, May 1976 to January 1977.

PROFESSIONAL, TECHNICAL AND HONORARY SOCIETIES

- Professional Engineer, State of Texas, Certificate Number 50489, 1982 to present.
- Institute of Industrial Engineers (IIE), Senior Member since 1981.
- National Council of Examiners for Engineering and Surveying (NCEES), Fundamentals Examination Committee, Industrial Engineering Sub-Committee, 1994 to present.
- Institute of Industrial Engineers (IIE), Brazos Valley Chapter, Secretary (1980-81), Treasurer (1981-82), Vice President (1982-83), President (1983-84).
- Institute for Operations Research and Management Science (INFORMS), formerly known as Operations Research Society of America (ORSA), Full Member since 1987.
- Institute for Operations Research (INFORMS), Program Co-Chair, INFORMS San Antonio, 2000.
- Operations Research Society of America (ORSA), Technical Section Committee Member, 1982-83.
- Alpha Pi Mu (Industrial Engineering Honor Society), Member since 1977.

HONORS, AWARDS AND LISTINGS

1. Professor Emeritus, Department of Industrial and Systems Engineering, Texas A&M

University, July 31, 2005.

2. The Association of Former Students of Texas A&M University, Distinguished Achievement Award for Teaching, College of Engineering, Fall 2003.
3. Recipient of the Great Distinction Symbol of the Industrial University of Santander Alumni Association, Industrial University of Santander (Colombia), June 2000.
4. Fellow of the Institute of Industrial Engineers, May 1999.
5. TEES Research Fellow, Texas A&M University System, Texas Engineering Experiment Station, October 1991.
6. Listed in Who's Who among Hispanic Americans, Gale Research Inc., 1990.
7. Listed in Who's Who in Texas, Who's Who Historical Society, 1985.
8. Distinguished Teaching Award, Association of Former Students of Texas A&M University, September 1982.
9. Outstanding Young Engineer of the Year, Texas Society of Professional Engineers, Brazos Valley Chapter, November 1981.
10. National Science Foundation Research Initiation Grant, September 1980 to September 1982.
11. Listed in the Directory of World Researchers' 1980 Subjects. Selected researchers in academic and industrial fields of the U.S.A., Europe, and Japan were chosen by the International Technical Information Institute (Tokyo, Japan) from various published information sources.
12. Named in list of teachers ranked as excellent by their students, published in an official University of Illinois notice, Fall 1976.
13. LASPAU (Latin American Scholarship Program of American Universities) scholarship for graduate study in the U.S., 1971-1973.
14. Graduated from the Industrial University of Santander, Colombia, with the rank of Cum Laude, 1970.

PUBLICATIONS

Books

1. *Facilities Planning and Design*, by A. Garcia-Diaz and J. M. Smith, Pearson

Prentice-Hall, 2008.

2. *Principles of Experimental Design and Analysis*, by A. Garcia-Diaz and D. T. Phillips, Chapman & Hall, London, January 1995.
3. *Fundamentals of Network Analysis*, by D.T. Phillips and A. Garcia-Diaz, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1981. Reissued by Waveland Press, Inc., Prospect Heights, Illinois, 1990.
4. *Fundamentals of Network Analysis*, by D.T. Phillips and A. Garcia-Diaz, *Translated into Russian*, 1984.

Contributions to Books

1. "Statistical Inference and Hypothesis Testing," by D.T. Phillips and A. Garcia-Diaz. Contributed to *Handbook of Industrial Engineering*, Chapter 86, 3rd Edition, 2001.
2. "An Industrial Application of Network Flow Models in Cellular Manufacturing Planning," by A. Garcia-Diaz and H. Lee, Planning, Design, and Analysis of Cellular Manufacturing Systems, edited by Kamrani A. K., H. R. Paraei, and D. H. Liles, Elsevier Science B. V., pp. 47-61, 1995.
3. "Statistical Inference and Hypothesis Testing," by D.T. Phillips and A. Garcia-Diaz. Contributed to *Handbook of Industrial Engineering*, Chapter 97, 2nd Edition, 1992.
4. "Computer Code for Blau Algorithm," Contributed to *Optimization Techniques with FORTRAN* by J. Kuester and J. Mize, Chapter 4, McGraw-Hill, 1973. Contributed by A. Garcia-Diaz and G.L. Hogg.

Refereed Articles

1. "Cost-Effective Selection and Multi-Period Scheduling of Pavement Maintenance and Rehabilitation Strategies," Yoo, J. and A. Garcia-Diaz, *Engineering Optimization*, Vol. 40, Issue 3, pp. 205-222, 2008.
2. "A Multi-Stop Routing Problem," Gonzalez-Velarde, J. L., S. Garcia-Lumbreras, and A. Garcia-Diaz, *Annals of Operations Research*, 157: 153-167, 2008.
3. "A Game-theoretic Procedure for Bridge Construction Cost Allocation," Lee, D. and A. Garcia-Diaz, *Transportation Research Record: Journal of the Transportation Research Board*, No. 1996, pp. 100-105, 2007.
4. "Improving Workplace Material Handling Through Consolidation of Cribs and Dispatching System," Das, B. and A. Garcia-Diaz, *Integrated Manufacturing Systems*, Vol. 14, Issue 2. Volume 14, No. 2, pp. 87-94, 2003.

5. "Optimization Procedures for Simultaneous Road Rehabilitation and Bridge Replacement Decisions in Highway Networks," Bonyuet, M. A., A. Garcia-Diaz, I. V. Hicks, *Engineering Optimization*. Vol. 34 (5), pp. 445-459, 2002.
6. "Factor Selection Guidelines for Job Evaluation: A Computerized Statistical Procedure," Das, B. and A. Garcia-Diaz, *Computers & Industrial Engineering*, 40, pp. 259-272, 2001.
7. "A Polyhedral Graph Theory Approach to Revenue Management in the Airline Industry," Kuyumcu A. and A. Garcia-Diaz, *Computers & Industrial Engineering*, pp. 375-396, June 2000.
8. "GIS-Based Network Routing Procedures for Overweight and Oversized Vehicles," Osegueda R., A. Garcia-Diaz, S. Ashur, O. Melchor, A. Kuyumcu, S. Chang, C. Carrasco, *Journal of Transportation Engineering of ASCE*, Vol. 125, No. 4, pp. 324-331, 1999.
9. "Revenue Maximization for the Hotel Industry Through Nested Booking Limit Procedures," Chang, S., A. Garcia-Diaz, T. Var, *Tourism Analysis*, 1998.
10. "A Computer Based Heuristic Methodology for the Development of Salary Administration Guidelines," A. Garcia-Diaz, B. E. Flores, R. Noche, *Omega*, Volume 24, No. 5, 1996.
11. "A Network-Based Relaxation Approach for Selecting Bridge Replacement or Rehabilitation Strategies," Seo, J. H. and A. Garcia-Diaz, *Engineering Optimization*, Vol. 26, pp. 105-121, 1996.
12. "Network Flow Procedures for the Analysis of Cellular Manufacturing Systems," Lee, H. and A. Garcia-Diaz, *IIE Transactions*, Design and Manufacturing, Vol. 28, pp. 333-345, 1996.
13. "Highway Cost Allocation: An Application of the Theory of Nonatomic Games," Castaño-Pardo A. and A. Garcia-Diaz, *Transportation Research*, Part A, Vol. 29A, No. 3, pp. 187-203, 1995.
14. "A Decomposition Approach to Project Compression With Concave Activity Cost Functions," Kuyumcu A. and A. Garcia-Diaz, *IIE Transactions*, Industrial Engineering Research & Development, Volume 26, No. 6, pp.63-73, 1994.
15. "A Network-Flow Approach to Solve Clustering Problems in Group Technology," Lee, H. and A. Garcia-Diaz, *International Journal of Production Research*, pp. 603-612, 1993.
16. "An Analytical Approach to the Development of a Bridge Management System," James, R., G. Stukhart, A. Garcia-Diaz, R. Bligh, J. Sobanjo, *Transportation*

Research Record 1290, Volume 2, pp.157-170, Third Bridge Engineering Conference, Denver, Colorado, March 1991.

17. "A Network Approach to Airline Fuel Allocation Problems," Garcia-Diaz A, *The Annals of the Society of Logistics Engineers*, Vol.2, No.1, pp. 39-54, 1990.
18. "A Monetary Incentive Plan for Machine-Paced Operations," Das, B., A. Garcia-Diaz, C. L. Hough, *International Journal of Operations and Production Management*, Vol. 9, No. 7, pp. 30-44, 1989.
19. "A Model for Evaluating Rehabilitation Costs of Flexible Pavements Under Different Climatic Conditions," Afiesimama, B. and A. Garcia-Diaz, *Transportation Research Record 1200*, pp. 59-65, January 1988.
20. "A Heuristic Circulation-Network Approach to Solve the Multi-Traveling Salesman Problem," Garcia-Diaz, A., *Networks*, Vol. 15, pp. 455-467, 1985.
21. "A Decomposition Method for Optimal Selection of Materials and Thicknesses in Flexible Pavements," Garcia-Diaz, A. and R. Patel, *Engineering Optimization*, Vol. 9, pp. 173-192, 1985.
22. "Development and Application of New Highway Cost Allocation Procedures," Villarreal-Cavazos, A. and A. Garcia-Diaz, *Transportation Research Record 1009*, pp. 34-41, January 1985.
23. "Developing Stochastic Flexible Pavement Distress and Serviceability Equations," Riggins M., R. L. Lytton, A. Garcia-Diaz, *Transportation Research Record 1048*, pp. 1-7, January 1985.
24. "Network Sampling to Estimate Distribution of Pavement Condition and Costs," Templeton, J., R. L. Lytton, A. Garcia-Diaz, *Transportation Research Record 1048*, pp. 8-16, January 1985.
25. "Dynamic Programming Analysis of Special Multi-Stage Inspection Systems," Garcia-Diaz, A., J. W. Foster, M. A. Bonyuet, *IIE Transactions*, Vol. 16, No. 2, pp. 115-126, June 1984.
26. "Sorting Algorithms for the Implementation of a Generalized Vector Product," Garcia-Diaz, A., D. K. Friesen, D. J. Bagert, *Networks*, Vol. 14, No. 2, pp. 269-273, 1984.
27. "A Serviceability and Distress Methodology for Predicting Pavement Performance," Garcia-Diaz, A. and M. Riggins; *Transportation Research Record 997*, pp. 56-61, 1984.
28. "Markovian Models for Investigating Failure and Repair Characteristics of

Production Systems," Foster, J. W. and A. Garcia-Diaz, *IIE Transactions*, Vol. 15, No. 3, pp. 202-209, September 1983.

29. "Optimal Strategies for Bridge Replacement," Garcia-Diaz, A. and J. S. Liebman, *Transportation Engineering Journal of ASCE*, Vol. 109, No. 2, pp. 196-208, March 1983.
30. "Combined Simulation and Network Optimization Analysis of a Production and Distribution System," Garcia-Diaz, A., G. L. Hogg, D. T. Phillips, E. J. Worrel, *Simulation*, Vol. 40, No. 2, pp. 59-66, February 1983.
31. "Estimation of Network Rehabilitation and Maintenance Costs Over an Extended Planning Horizon," Garcia-Diaz, A., R. L. Lytton, J. T. Allison, *Transportation Research Record 943*, pp. 9-17, January 1983.
32. "Model for Predicting Flexible Pavement Service Life and Its Impact on Rehabilitation Decisions," Allison, J. T., A. Garcia-Diaz, and R. L. Lytton, *Transportation Research Record 943*, pp. 17-24, January 1983.
33. "A Mathematical Programming Approach to Salary Administration", Garcia-Diaz, A. and G.L. Hogg; *Computers and Industrial Engineering*, Vol. 7, No. 1, pp. 7-13, 1983.
34. "Network Modeling of Agricultural Marketing and Transportation Systems," Garcia-Diaz, A., S.W. Fuller, D.T. Phillips, *The Logistics and Transportation Review*, Vol. 18, No. 2, pp. 117-126, 1982.
35. "Combining Simulation and Optimization to Solve the Multi-Machine Interference Problem," Garcia-Diaz, A., G. L. Hogg, F. G. Tari, *Simulation*, Vol. 36, No. 6, pp. 193-201, June 1981.
36. "An Investment Staging Model for a Bridge Replacement Problem," Garcia-Diaz, A. and J. S. Liebman, *Operations Research*, Vol. 28, No. 3, Part II, pp. 736-753, May-June 1980.
37. "Optimal Flexible Pavement Design," Garcia-Diaz A. and J. S. Liebman, *Transportation Engineering Journal of ASCE*, Vol. 104, No. TE3, pp. 323-334, May 1978.

Articles in Proceedings

1. "Optimal Procedures for Minimizing Commodity Distribution Costs in Networks with Conditional Arc Lower Bounds," by A. Garcia-Diaz, S. Kim, R. Sawhney, Proceedings of the *Industrial Engineering Research Conference*, Paper No. 285, Vancouver, Canada, May 19-21, 2008.

2. "The Influence of Demand Substitution to a Two Echelon Supply Chain", L. Song, X. Li, and A. Garcia-Diaz. Proceedings of the *Industrial Engineering Research Conference*, Vancouver, Canada, May 19-21, 2008.
3. "A Heuristic Algorithm On Multi-Commodity Multi-Mode Generalized Networks With Time-Window Constraints," by Chen, P. and A. Garcia-Diaz, Proceedings of the *Industrial Engineering Research Conference*, Paper No. 146, Nashville, Tennessee, May 19-23, 2007.
4. "Weighted Feature Vector Selection in Web Document Clustering Analysis," by Song L, X. Li, and A. Garcia-Diaz, Proceedings of the *Industrial Engineering Research Conference*, Paper No. 481, Nashville, Tennessee, May 19-23, 2007.
5. "Sequencing Input Products in Oil Pipelines with Delivery Time-Windows," by Jittamai, P. and A. Garcia-Diaz, Proceedings of the *Industrial Engineering Research Conference*, Paper No. 1415, Orlando, Florida, May 20-24, 2006.
6. "Cost-Effective Selection and Multi-Period Scheduling of Pavement Maintenance and Rehabilitation Strategies," by J. Yoo and A. Garcia-Diaz, Proceedings of the *Industrial Engineering Research Conference*, Paper No. 84, Houston, Texas, May 16-19, 2004.
7. "Multi-Commodity Flow Estimation in Transportation Networks with Partial Counts on Selected Links," by D. Kang and A. Garcia-Diaz, Proceedings of the *Industrial Engineering Research Conference*, Paper No. 458, Houston, Texas, May 16-19, 2004.
8. "Allocation of Highway Costs in Pavement Networks Using Game Theory" by D. Lee and A. Garcia-Diaz, Proceedings of the *IIE Annual Research Conference*, Paper No. 2058, Portland, Oregon, May 2003.
9. "Overview of the Upper Division Industrial Engineering Undergraduate Program at Texas A&M University" by D. R. Smith, A. Garcia-Diaz and C. Malave, *International Industrial Engineering Conference*, 1998.
10. "A Cutting-Plane Procedure for Maximizing Revenues in Yield Management" by A. Garcia-Diaz and A. Kuyumcu, Proceedings of the 21st *International Conference on Computers and Industrial Engineering*, Vol. 33, No. 1-2, 1997, San Juan, Puerto Rico.
11. "Cost-Effective Utilization of Government Resources in Engineering," by A. Garcia-Diaz, T. Sastri, and J. C. Paz, *Proceedings of the 46th International Industrial Engineering Conference*, Nashville, Tennessee, May 21-24, 1995.
12. "Improving Material Handling and Dispatching Systems in the Workplace" by B. Das and A. Garcia-Diaz, *Proceedings of the 46th International Industrial Engineering Conference*, Nashville, Tennessee, May 21-24, 1995.

13. "Machine-Part Grouping in Cellular Manufacturing Systems for Minimizing Intercellular Material Flows," by H. Lee and A. Garcia-Diaz, *Proceedings of the 2nd Industrial Engineering Research Conference*, pp. 197-201, Los Angeles, California, 1993.
14. "A Supervisory Compensation Plan Based on Performance," by A. Garcia-Diaz, B. Das, and P.K. Sen; *International Industrial Engineering Conference Proceedings*, pp. 203-211, Detroit, Michigan, May 19-22, 1991.
15. "A Linear Programming Approach to the Highway Cost Allocation Problem," by Arturo Villarreal and Alberto Garcia-Diaz; *International Industrial Engineering Conference Proceedings*, pp. 373-378, San Francisco, California, May 20-23, 1990.
16. "Cost-Effective Use of Government Resources and Private Contractors in Maintenance Projects," by A. Garcia-Diaz and F. Cediél-Franco; *International Industrial Engineering Conference Proceedings*, pp. 217-221, Orlando, Florida, May 1988.
17. "A Two-Factor Monetary Incentive Plan for Machine-Paced Operations," by B. Das, A. Garcia-Diaz, and C.L. Hough; *Proceedings of the International Conference on Advances in Production Management Systems*, Winnipeg, Canada, August 11-14, 1987. Published in *Modern Production Management Systems*, Elsevier Publishers (North-Holland), pp. 699-710.
18. "An Industrial Application of Networks to Aviation," by A. Garcia-Diaz; *Proceedings of the International Industrial Engineering Conference*, pp. 485-488, Washington, D.C., May 1987.
19. "A Computerized Statistical Approach for Selecting Compensable Factors in a Point Job Evaluation Plan," by A. Garcia-Diaz and B. Das; *Proceedings of the Fall Industrial Engineering Conference*, pp. 646-656, Toronto, Canada, November 1983.
20. "Optimal Allocation of Repeated Inspection in a Class of Non-Serial Production Processes," by A. Garcia-Diaz and J.W. Foster; *Proceedings of XI National Congress on Quality Control and Latin American Seminars*, Vol. 1, pp. 147-152, October 1983, Permission granted by the American Institute of Industrial Engineers.
21. "Decision-Support Methodology for Developing Performance-Based Salary Policies," by A. Garcia-Diaz; *Proceedings of the Annual International Industrial Engineering Conference*, pp. 32-42, Los Angeles, California, May 1985.
22. "Two Alternative Approaches to the Highway Cost Allocation Problem," by A. Garcia-Diaz and A. Villarreal-Cavazos; *Proceedings of the North American Pavement Management Conference*, Vol. 1, pp. 3.47-3.58, Toronto, Canada, March 18-21, 1985.

23. "Optimal Allocation of Repeated Inspection in a Class of Non-Serial Production Processes," by A. Garcia-Diaz and J.W. Foster; *Proceedings of the AIIE Annual Industrial Engineering Conference*, pp. 556-571, May 1982.
24. "Modeling and Reliability and Maintainability Characteristics of Manufacturing Systems," by J.W. Foster and Garcia-Diaz; *Proceedings of the annual Reliability and Maintainability Symposium*, pp. 453-458, January 1982.

Non-Refereed Articles

1. "Pavement Rehabilitation Analysis: A Model for Texas," by A. Garcia-Diaz, D. Burke and R.L. Lytton; *Texas Transportation Researcher*, Vol. 17, No. 1, pp. 8-10, January 1981.
2. "A Network-Based Planning Methodology to Optimally Allocate State Maintenance Funds to Bridge Repair Problems," by A. Garcia-Diaz and D.T. Phillips; *Texas Engineering Experiment Station, Technical Bulletin*, Vol. 81-2, pp. 17-25, April 1981.
3. "Highway Cost Allocation for Vehicle Classes in Texas," by A. Garcia-Diaz, A. Villarreal Cavazos, and D. Burke; *Texas Transportation Researcher*, Vol. 21, No. 1, pp. 3-4, January 1985.

Technical Reports

1. "Highway Cost Allocation in Texas: Executive Summary," by D. Luskin, A. Garcia-Diaz, C. M. Walton, and Z. Zhang, Texas Department of Transportation, Project Report 1810-3, November 2002.
2. "Highway Cost Allocation in Texas," by D. Luskin, A. Garcia-Diaz, C. M. Walton, and Z. Zhang, Texas Department of Transportation, Research Report 1810-2, October, 2002.
3. "Highway Cost Allocation in Texas," by D. Luskin, A. Garcia-Diaz, C. M. Walton, and Z. Zhang, Texas Department of Transportation, Research Report 1810-1, January 2001.
4. "Automated Routing of Overweight Vehicles – Phase II," by Osegueda R., A. Garcia-Diaz, O. Melchor, S. Sung-Ho, Texas Department of Transportation, Research Report 0-1823, November 1998.
5. "Development of Automated Routing of Overweight/Oversize Vehicles System for Houston District," by Osegueda R., A. Garcia-Diaz, S. Ashur, O. Melchor, C. J. Carrasco, Texas Department of Transportation, Research Report 0-1482, October 1996.

6. "A Proposed Bridge Management System Implementation Plan for Texas," by R. W. James, G. Stukhart, W. McFarland, A. Garcia-Diaz, R. Bligh, S. Baweja, and J. Sobanjo, Texas Department of Transportation, Research Report 1259-1F, February 1992.
7. "Development of Engineering Processes for a Comprehensive Bridge Management System for Texas," by Stukhart, G., R.W. James, A. Garcia-Diaz, F. McFarland, R. Bligh, J. Sobanjo, Texas Department of Highways and Public Transportation, Report 1259, December 1991.
8. "Study for a Comprehensive Bridge Management System for Texas," by G. Stukhart, R.W. James, A. Garcia-Diaz, R.P. Bligh, J. Sobanjo, and W. F. McFarland, Report 1212-1F, Texas Transportation Institute, October 1990.
9. "A Model for Estimating Rehabilitation Costs Associated with the Elimination of Load Zones in the FM System," by A. Garcia-Diaz, Report 1132-1F, Texas Transportation Institute, November 1988.
10. "Pavement Cost Allocation Model Updates," DOT Federal Highway Administration, Report for Study DTFH61-00021, by A. Villarreal, A. Garcia-Diaz, and R.L. Lytton, Federal Highway Administration (FHWA), September 1987.
11. "Utilization of Consultants by SDHPT (State Department of Highways and Public Transportation)," by D. Burke, R. Cavazos, A. Garcia-Diaz and K. Tenah, Research Report 1100-1F, Texas Transportation Institute, May 1987.
12. "Evaluation of In-House Maintenance and Maintenance Contract Costs for Guardrail, Rest Areas, Pavement Markers, Striping and Seal Coats," by A. Garcia-Diaz and F. Cediell-Franco, Research Report 380-1F, Vol. I, Texas Transportation Institute, November 1986.
13. "Development and Implementation of A Computerized Procedure for Estimating Pavement Rehabilitation and Maintenance Expenditures: RENU3," by A. Garcia-Diaz, B.T. Afiesimama and J.C. Garcia-Diaz, Research Report 129-1F, Texas Transportation Institute, December 1986.
14. "Analysis of the Use of Consultants to Perform Engineering Tasks," by A. Garcia-Diaz et al., Report 392-1F, Texas Transportation Institute, November 1985.
15. "Texas Highway Cost Allocation," by A. Garcia-Diaz et al., Report 332/362-2F, Texas Transportation Institute, November 1985.
16. "Analysis of Truck Use and Highway Cost Allocation in Texas," by A. Garcia-Diaz, D. Burke, and A. Villarreal-Cavazos, Report 332-1, Texas Transportation Institute, September 1984.

17. "Development of Performance and Survivor Curves for Flexible Pavements," by A. Garcia-Diaz, M. Riggins, and S. Liu, Study 2-284, Texas Transportation Institute, February 1984.
18. "Documentation of the Modified Computerized Program RENU2 to Estimate Pavement Network Rehabilitation and Maintenance Costs," by A. Garcia-Diaz, Research Report 992-1, Texas Transportation Institute, March 1983.
19. "Selection and Scheduling of Rehabilitation Alternatives in a Road-Bridge Rural Transportation System Consisting of Multiple Local Units," by A. Garcia-Diaz, NSF Grant CME-800G712, January 1983.
20. "Evaluation of AASHO Road Test Satellite and Environmental Studies," by R.L. Lytton and A. Garcia-Diaz, Final Report prepared for the National Cooperative Highway Research Program, NCHRP, Texas Transportation Institute, January 1983.
21. "Estimating Remaining Service Life of Flexible Pavements," by A. Garcia-Diaz and J.T. Allison, State Department of Highways and Public Transportation, Research Report 325-F, August 1982.
22. "Performance Rake Angle and Wear Test Analysis for Advanced Technology Coal Mine Roof Bolt Drill Bits," by C.L. Hough, M.O. Obioha, and A. Garcia-Diaz, Sandia National Laboratories, April 1982.
23. "Computerized Methods of Projecting Rehabilitation and Maintenance Requirements Due to Vehicle Loadings," Final Report, by A. Garcia-Diaz, R.L. Lytton, D. Burke, B.F. McCullough and C.M. Walton, State Department of Highways and Public Transportation, Research Report 298/312-5F, August 1981.
24. "Computerized Method of Projecting Rehabilitation and Maintenance Requirements Due to Vehicle Loadings", User Manual, by A. Garcia-Diaz, R.L. Lytton, D. Burke, B.F. McCullough, and C.M. Walton, State Department of Highways and Public Transportation, Research Report 298/312-1, August 1981.
25. "Evaluation of Computer Programs NULOAD and REHAB," by A. Garcia-Diaz, R.L. Lytton, D. Burke, B.F. McCullough, and C.M. Walton, State Department of Highways and Public Transportation, Research Report 298/312-1, Vols. 1, 2, and 3, September 1980.
26. "Longitudinal Evaluation of Speed Control Strategies," by A. Garcia-Diaz and G.L. Hogg, Final Report prepared for the Department of Public Safety (DPS), Texas Transportation Institute (TTI), September 1980.

FUNDED RESEARCH PROJECTS

Estimated total value: \$ 3.1M

- "Value Pricing Pilot Program." Texas Department of Transportation. Task Director, Stated-Preference Factorial Survey Design. Dates: June-August 2003. \$20,000 (estimate).
- "Highway Cost Allocation in Texas," Principal Investigators: C. M. Walton (University of Texas at Austin) and A. Garcia-Diaz (Texas A&M University), Texas Department of Transportation, Study 0-1810, July 1999 – August 2002. \$490,000.
- "Automatic Routing of Overweight Vehicles," Principal Investigators: A. Garcia-Diaz (Texas A&M) and R. Osegueda (University of Texas at El Paso), Texas Department of Transportation, Study 0-1482, September 1995 - August 1998. \$325,790.
- "Development of Engineering Processes for a Comprehensive Bridge Management System for Texas," Principal Investigators: G. Stukhart and R.W. James, Optimization Analyst: A. Garcia-Diaz, Texas Department of Highways and Public Transportation, Study 2-5-91/2-1259, November 1990 - October 1991. \$163,000.
- "Study for a Comprehensive Bridge Management System for Texas," Principal Investigators: G. Stukhart and R.W. James, Optimization Analyst: A. Garcia-Diaz, State Department of Highways and Public Transportation, Study 2-4-89-1212, September 1988 - August 1990. \$184,400.
- "Relationship Between Economic Development and Transportation Investment," Principal Investigator: D. Burke, Task Director: A. Garcia-Diaz, University Transportation Center, January-December 1989. \$25,000 (estimate).
- "Pavement Maintenance Effectiveness," Principal Investigator: R. L. Lytton, Strategic Highway Research Program (SHRP), Federal Highway Administration (FHWA). Member of technical staff group responsible for Development of Detailed Experimental Plan and Data Analysis Phases, November 1987 - October 1988. \$379,761.
- "A Model to Evaluate Load Zoning Policies on the FM System," Texas Department of Highways and Public Transportation, Study 2-10-88-1132, Principal Investigator, September 1987 - August 1988. \$73,350.
- "Pavement Cost Allocation Model Updates," DOT-Federal Highway Administration, Study DTFH61-87-C-00021, Principal Investigator, December 31, 1986 - July 31, 1987. \$44,000.
- "Quality Appraisal Procedures for Effective Utilization of Consultants in Pre-Construction Highway Engineering," Texas Department of Highways and Public Transportation, Study 2-1100, Principal Investigator, February 1, 1986 - March, 31, 1987. \$78,000.

- "Improving RENU2 Procedures for Pavement Rehabilitation and Maintenance Cost Estimation," Interagency Cooperation Contract between the State Department of Highways and Public Transportation and the Texas Transportation Institute, Texas A&M University System, Study 0121, Principal Investigator, April 15, 1986 - December 31, 1987. \$567,250.
- "Cost Comparison of Maintenance Activities and a Selected Cost Benefit Application," Texas Department of Highways and Public Transportation, Study 2-380, Principal Investigator, September 1985 - August 1986. \$145,000.
- "Analysis of the Use of Consultants to Perform Engineering Tasks," Texas Department of Highways and Public Transportation, Study 2-392. Principal Investigator, September 1984 - August 1985. \$50,000.
- "Analysis of Truck Use and Highway Cost Allocation in Texas," Texas Department of Highways and Public Transportation, Study Number 2-332, Co-Principal Investigator, September 1983 - August 1985. \$220,000.
- "Flexible Pavement Data Base and Design," Texas Department of Highways and Public Transportation, Research Study 2-284, Co-Principal Investigator (Principal Investigator: R.L. Lytton), September 1981 - August 1984. \$200,475.
- "Documentation of the Modified RENU2 Program," Texas Department of Highways and Public Transportation, Interagency Cooperation Contract with the Texas Transportation Institute, Principal Investigator, September 1982 - March 1983. \$15,000.
- "Estimating Remaining Service Life of Flexible Pavements," Texas Department of Highways and Public Transportation, Research Study 3-325, Principal Investigator, September 1981 - August 1982. \$24,120.
- "Selection and Scheduling of Rehabilitation Alternatives in a Road Bridge Rural Transportation System Consisting of Multiple Local Units," National Science Foundation Grant CME 8006712, Principal Investigator, September 1980 - September 1982. \$40,000.
- "Computerized Methods of Projecting Rehabilitation and Maintenance Requirements Due to Vehicle Loadings," Texas State Department of Highways and Public Transportation, Research Study 298, Principal Investigator, June 1980 - August 1981. \$55,900.
- "Evaluation of AASHO Road Test Satellite and Environmental Studies," National Cooperative Highway Research Program, NCHRP, Co-Principal Investigator, November 1979 - November 1980. \$45,924.

- "Longitudinal Evaluation of Speed Control Strategies," Texas Department of Public Safety, Study 5183, Co-Principal Investigator, September 1978 - September 1980. \$25,000.

SEMINARS, WORKSHOPS AND PRESENTATIONS

1. Presented the article "Optimal Procedures for Minimizing Commodity Distribution Costs in Networks with Conditional Arc Lower Bounds," by A. Garcia-Diaz, S. Kim, and R. Sawhney, Networks Application, *Industrial Engineering Research Conference*, Vancouver, Canada, May 17-21, 2008.
2. Kang D. H. and A. Garcia-Diaz, "Estimating Diversion Rates of Toll Roads with Multi-Commodity Network Flow Optimization" O.R. Applications in Transportation, *Industrial Engineering Research Conference*, Vancouver, Canada, May 17-21, 2008.
3. Chen, P. and A. Garcia-Diaz, "A Heuristic Algorithm On Multi-Commodity Multi-Mode Generalized Networks With Time-Window Constraints," Challenges in Network Optimization, *Industrial Engineering Research Conference*, Nashville, TN, May 19-23, 2007.
4. Song. L., X. Li and A. Garcia-Diaz, "Weighted Feature Vector Selection in Web Document Clustering Analysis," Knowledge Management Systems, *Industrial Engineering Research Conference*, Nashville, Tennessee, May 19-23, 2007.
5. Jittamai, P. and A. Garcia-Diaz, "Sequencing Input Products in Oil Pipelines with Delivery Time-Windows," *Industrial Engineering Research Conference*, Paper No. 1415, Orlando, Florida, May 20-24, 2006.
6. Presented the article "Optimization Techniques for Road Rehabilitation and Bridge Replacement," by A. Garcia-Diaz and I. Hicks, INFORMS Annual Meeting, San Francisco, November 11-14, 2005.
7. Jittamai, P. and A. Garcia-Diaz, "Analysis of Oil Pipeline Distribution Subject to Delivery Time-Windows," IFORS Hawaii 2005, Honolulu, July 11-15, 2005.
8. Presented the article "Cost-Effective Selection and Multi-Period Scheduling of Pavement Maintenance and Rehabilitation Strategies," by J. Yoo and A. Garcia-Diaz, *Industrial Engineering Research Conference*, Houston, Texas, May 19, 2004.
9. D. Kang and A. Garcia-Diaz, "Multi-Commodity Flow Estimation in Transportation Networks with Partial Counts on Selected Links," *Industrial Engineering Research Conference*, Houston, Texas, May 16, 2004.
10. Segura V., S. Garcia, and A. Garcia-Diaz; "Single Knapsack Problem with Multiple Resources: Valid Inequalities and Facets"; OR Research and Applications; Atlanta INFORMS Conference, October 19, 2003

11. Jittamai, P. and A. Garcia-Diaz; "Multicommodity Oil Pipeline Problem with Delivery Time Windows"; Networks & Graphs II; Atlanta INFORMS Conference, October 21st, 2003.
12. Yoo, J. and A. Garcia-Diaz; "Multi-Period Optimization of Pavement Management Systems"; Transportation I; Atlanta INFORMS Conference, October 22nd, 2003.
13. Presented the article "Allocation of Highway Costs in Pavement Networks Using Game Theory" by D. Lee and A. Garcia-Diaz, *IIE Annual Research Conference*, Session S211: Applied Operations Research, Portland Oregon, May 2003.
14. Smith, D.R., A. Garcia-Diaz and C. Malave, "Overview of the Upper Division Industrial Engineering Undergraduate Program at Texas A&M University," International Industrial Engineering Conference, 1998.
15. Chang, S. and A. Garcia-Diaz, "Nested Procedure for Revenue Maximization in the Hotel Industry," Institute for Operations Research and The Management Sciences (INFORMS) Conference, Dallas, Texas, October 28, 1997.
16. Kuyumcu, A. and A. Garcia-Diaz, "A Split-Graph and Cutting-Plane Approach to Optimal Pricing and Seat Inventory Control in Origin-Destination Networks," INFORMS Washington D.C. Meeting, May 5-8, 1996.
17. Presented the article "Cost-Effective Utilization of Government Resources in Engineering," by A. Garcia-Diaz and T. Sastri, 46th International Industrial Engineering Conference, Nashville, Tennessee, May 21-24, 1995.
18. Das, B. and A. Garcia-Diaz, "Improving Material Handling and Dispatching Systems in the Workplace," 46th International Industrial Engineering Conference, Nashville, Tennessee, May 21-24, 1995.
19. Presented the article "A Network-Flow Methodology for Forming Machine Cells and Part Families in Manufacturing Systems," by A. Garcia-Diaz and H. Lee, TIMS/ORSA Boston Joint National Meeting, April 24-27, 1994.
20. Castano-Pardo, A. and A. Garcia-Diaz, "A Non-Atomic Game Approach to Highway Cost Allocation," TIMS/ORSA Boston Joint National Meeting, April 24-27, 1994.
21. Network Analysis Course, U.S. Army Logistics Management College, Fort Lee, Virginia, February 1994.
22. Network Models and Applications Course, Monterrey Institute of Technology (ITESM, Mexico), July-August 1993.
23. Use of Network Models in Manufacturing, invited speaker, IEEE, Monterrey Chapter

(Mexico), July 8, 1993.

24. Presented the article "Machine-Part Grouping in Cellular Manufacturing Systems for Minimizing Intercellular Material Flows," by H. Lee and A. Garcia-Diaz, 2nd Industrial Engineering Research Conference, Los Angeles, California, 1993.
25. Network Analysis Course, U.S. Army Logistics Management College, Fort Lee, Virginia, June 1992.
26. Lee H. and A. Garcia-Diaz, "A Network-Flow Approach for the Design of Cellular Manufacturing Systems," TIMS/ORSA Conference, Orlando, Florida, April 26-29, 1992.
27. Kuyumcu A. and A. Garcia-Diaz, "A Mathematical Decomposition Methodology for Project Management," TIMS/ORSA Conference, Orlando, Florida, April 26-29, 1992.
28. Kim S. and A. Garcia-Diaz, "A Cost Minimization Methodology for Generalized Networks with Conditional Lower Bounds," TIMS/ORSA Conference, Orlando, Florida, April 26-29, 1992.
29. Presented the article "A Supervisory Compensation Plan Based on Performance," International Industrial Engineering Conference, Detroit, Michigan, May 19-22, 1991.
30. "Optimal Pavement Durability-Based Highway Cost Allocation Procedures," by C. Makrigeorgis and A. Garcia-Diaz, ORSA/TIMS Joint National Meeting, Philadelphia, Pennsylvania, October 29-31, 1990.
31. "A Linear Programming Approach to the Highway Cost Allocation Problem," by A. Villarreal and A. Garcia-Diaz, International Industrial Engineering Conference, San Francisco, California, May 20-23, 1990.
32. Presented the paper "A Comparison of Heuristic and Optimal Procedures for Solving a Special Class of Compensation Problems," ORSA/TIMS Joint National Meeting, New York, NY, October 1989.
33. Presented the paper "Airline Fuel Management Using Network Decision-Support Methodologies," Operations Research Society of America (ORSA), National Meeting, Denver, Colorado, October 23-26, 1988.
34. Presented the paper "Cost-Effective Use of Government Resources and Private Contractors" at the International Industrial Engineering Conference, Orlando, Florida, May 22-25, 1988.
35. Invited speaker in the 1987 Andean Conference on Microcomputer Applications in

Industry, Government and Higher Education, Quito, Ecuador, July 14-18, 1987.

36. Presented the paper "An Industrial Application of Networks to Aviation" at the International Industrial Engineering Conference, Washington, D.C. May 17-20, 1987.
37. "A Method for Highway Cost Allocation in Texas," by A. Villarreal-Cavazos and A. Garcia-Diaz, paper presented at the Operations Research Society of America (ORSA) meeting, New Orleans, Louisiana, May 6, 1987.
38. "Development and Application of a Decision-Support Methodology for Estimating Pavement Rehabilitation Needs," by B.T. Afiesimama and A. Garcia-Diaz, paper presented at the Operations Research Society of America (ORSA) meeting, New Orleans, Louisiana, May 6, 1987.
39. "Procedure for Selecting Projects for Roadway Maintenance Contractors," by A. Garcia-Diaz and F. Cediél-Franco, paper presented at the 1986 International Public Work Congress Equipment Show, American Public Works Association and International Public Work Federation, New Orleans, September 20-25, 1986.
40. "The Development of a Two-Factor Monetary Incentive Plan for Machine-Paced Operations," by B. Das, A. Garcia-Diaz, and C. L. Hough, International Industrial Engineering Conference, Dallas, Texas, May 11-15, 1986.
41. Latin American Conference on Microcomputers in Government, Industry and Education; delivered two technical presentations covering salary administration methodologies as an industrial application, and pavement management systems as a government application, Bogota, Colombia, April 21-25, 1986.
42. Presented the paper "Approximate Solutions for Multi-Traveling Salesman Problems Using Network Circulation Models" at the Operations Research Society of America (ORSA) meeting, Los Angeles, California, April 14-16, 1986.
43. Served as Coordinating Secretary of the Session on Optimization Methodologies of the North American Pavement Management Conference, Toronto, Canada, March 18-21, 1985.
44. Presented the paper "Two Alternative Approaches to the Highway Cost Allocation Problem" at the Session on Policy and Planning of the North American Pavement Management Conference, Toronto, Canada, March 18-21, 1985.
45. Conducted the Seminar "A Quantitative Approach to Developing an Effective Salary Administration Program," Technical University of Nova Scotia, Halifax, Canada, March 18, 1985.
46. Conducted the Seminar "Use of Mathematical Models in the Development and Application of Highway Cost Allocation Procedures," Technical University of Nova

Scotia, Halifax, Canada, March 18, 1985.

47. Joint presentation of "Development and Application of New Highway Cost Allocation Procedures," by A. Villarreal-Cavazos and A. Garcia-Diaz, before the Committee on Taxation, Finance and Pricing, 64th Annual Meeting of the Transportation Research Board, Washington, D.C., January 14-17, 1985.
48. "Developing Stochastic Flexible Pavement Distress and Serviceability Equations," by M. Riggins, R. L. Lytton, and A. Garcia-Diaz, paper presented at the 64th Annual Meeting of the Transportation Research Board, Washington D.C., January 14-17, 1985.
49. "Network Sampling to Estimate Distribution of Pavement Condition and Costs," by J. Templeton, R. L. Lytton, and A. Garcia-Diaz, paper presented at the 64th Annual Meeting of the Transportation Research Board, Washington D.C., January 14-17, 1985.
50. Joint presentation of "A Mathematical Model for Highway Cost Allocation," by A. Villarreal-Cavazos and A. Garcia-Diaz, Operations Research Society of America (ORSA) meeting, Dallas, Texas, November 26-28, 1984.
51. Presented the paper "A Serviceability and Distress Methodology for Predicting Pavement Performance" at the 63rd Annual Meeting of the Transportation Research Board, Washington DC, January 16-20, 1984.
52. Presented the paper "A Computerized Statistical Approach for Selecting Compensable Factors in a Point Job Evaluation Plan" at the 1983 Fall, Industrial Engineering Conference, Toronto, Canada, November 13-16, 1983.
53. Presented the paper "Optimal Allocation of Repeated Inspection in a Class of Non-Serial Production Process," at the XI National Congress on Quality Control and Latin American Seminars, Mexican Institute for Quality Control, Mexico City, October 5-8, 1983.
54. Conducted the Seminar "Development and Application of Computerized Models for Decision Making in Salary Administration" at the University of Los Andes, Bogota, Colombia, June 21-24, 1983.
55. Presented the paper "A Decomposition Procedure for Optimal Selection of Materials and Thickness in Flexible Pavements" at the Operations Research Society of America (ORSA) meeting, Chicago, Illinois, April 25-27, 1983. This paper was chosen for presentation in the Optimization and its Engineering Uses Symposium offered in conjunction with the ORSA national meeting.
56. Presented the paper "Estimation of Network Rehabilitation and Maintenance Costs Over and Extended Planning Horizon" at the 62nd Annual Meeting of the

Transportation Research Board, Washington D.C., January 17-21, 1983. (This paper was co-authored with R.L. Lytton and J.T. Allison).

57. Joint presentation of the paper "Model for Predicting Flexible Pavement Service Life and Its Impact on Rehabilitation Decisions," by J.T. Allison, A. Garcia-Diaz and R.L. Lytton. Presented at the 62nd Annual Meeting of the Transportation Research Board, Washington D.C., January 17-21, 1983.
58. Attended and Participated in the Enhancing College Teaching Workshop, Texas A&M University, January 13, 1983.
59. Conducted the Seminar "Network Analysis and Applications in Engineering" at the Industrial University of Santander, Colombia, August 1-15, 1982.
60. Presented the paper "Optimal Allocation of Repeated Inspection in a class of Non-Serial Production Processes" at the 1982 Annual Industrial Engineering Conference, New Orleans, Louisiana, May 23-27, 1982.
61. Presented the paper "Selection and Scheduling of Rehabilitation Alternatives in a Road-Bridge Rural Transportation System" at the Operations Research Society of America (ORSA) meeting, (Joint presentation with M. Bonyuet), Detroit, Michigan, April 19, 1982.
62. Conducted the Seminar "Network Analysis: Theory and Application" at the University of Puerto Rico, Mayaguez Campus, March 15-19, 1982.
63. Presented the paper "Speed Control and Patrol Allocation Strategies" at the Operations Research Society of America (ORSA) meeting, Houston, Texas, October 12, 1981.
64. Conducted the lectures on Modeling Techniques in the Faculty Development Program in Systems Engineering Texas A&M University, July 27 to August 7, 1981.
65. Participated in the AASHTO (American Association of State Highway and Transportation Officials) Task Force on Pavements, San Antonio, Texas, January 27-29, 1981.
66. Presented the paper "A Quantitative Approach to the Design of an Executive Salary Administration Guide" at the Operations Research Society of America (ORSA) Meeting, Colorado Springs, Colorado, November 10, 1980.
67. Presented the paper "An Investment Staging Model of a Bridge Replacement Problem" at the ORSA Meeting, New Orleans, Louisiana, May 2, 1979.
68. Attended Workshop on Transportation Network Design sponsored by the Mathematical Social Science Board through a grant from the National Science

Foundation, Monticello, Illinois, September 15-16, 1977.

CHAIR OF GRADUATE STUDENT COMMITTEES

Ph.D. Students (Graduation Dates Shown)

1. Acosta-Amado, Rolando, Chair, Department of Industrial & Information Engineering, The University of Tennessee, Knoxville, in-progress.
2. Song, Laigang, Co-Chair, Department of Industrial & Information Engineering, The University of Tennessee, Knoxville, in-progress.
3. Chen, Ping-Shun, "Cost Minimization in Multi-Commodity, Multi-Mode Generalized Networks with Time Windows," Department of Industrial Engineering, Texas A&M University, December 2005.
4. Kang, Dong Hun: "Multi-Commodity Flow Estimation With Partial Counts On Selected Links," Department of Industrial Engineering, Texas A&M University, December 2005.
5. Phongchai, Jittamai: "Analysis of Oil-Pipeline Distribution of Multiple Products Subject to Delivery Time-Windows," Department of Industrial Engineering, Texas A&M University, December 2004.
6. Yoo, Jaewook: "Multi-Period Optimization of Pavement Management Systems," Department of Industrial Engineering, Texas A&M University, May 2004.
7. Lee, Dong-Ju: "Game-Theoretic Procedures for Determining Pavement Thickness and Traffic Lane Costs in Highway Cost Allocation," Department of Industrial Engineering, Texas A&M University, August 2002.
8. Segura-Flores, Victor: "Single Knapsack Problem with Multiple Resources: Valid Inequalities and Facets," Joint Program with ITESM (Monterrey Technological Institute), Monterrey, Mexico, December 1995.
9. Li, Jingying: "Dynamic seat Allocations for Network Revenue Management in the Airline Industry," (Co-Chair), Department of Industrial Engineering, Texas A&M University, May 2000.
10. Chang, Sung-Ho: "Tactical-Level Resource Allocation Procedure for the Hotel Industry", Department of Industrial Engineering, Texas A&M University, August 1998.
11. Kuyumcu, Ahmet: "A Split Graph and Cutting Plane Approach to Optimal Pricing and Seat Inventory Control in Origin Destination Networks," Department of

Industrial Engineering, Texas A&M University, August 1996.

12. Garcia, Salvador: "The Multi-Stop Aircraft Routing Problem," Joint Program with ITESM (Monterrey Technological Institute), Monterrey, Mexico, December 1995.
13. Seo, Jung H.: "A Lagrangean Relaxation and Network Approach to Large-Scale Optimization for Bridge Management Systems," Department of Industrial Engineering, Texas A&M University, December 1994.
14. Lee, Hongchul: "Network Flow Partitioning Procedures for the Analysis of Cellular Manufacturing Systems," Department of Industrial Engineering, Texas A&M University, August 1993.
15. Makrigeorgis, Christos: "Development of an Optimal Durability-Based Highway Cost Allocation Model," Department of Industrial Engineering, Texas A&M University, August 1991.
16. Villarreal-Cavazos, Arturo: "Cost Allocation Procedures for Decision Making in Highway Financing," Department of Industrial Engineering, Texas A&M University, May 1985.
17. Petersen, Harry C.: "A Systems Evaluation of High Speed Rail for the Texas Triangle," (Co-Chair), Department of Industrial Engineering, Texas A&M University, May 1985.
18. Sowapru, Buranawong: "Internship Experience at Fluor Engineers, Inc., Houston Division," Doctor of Engineering degree (Co-Chair), Department of Industrial Engineering, Texas A&M University, December 1983.
19. Allison, Jack: "A Combined Serviceability and Distress Pavement Performance Model for Estimating Remaining Service Life of Flexible Pavements," Department of Industrial Engineering, Texas A&M University, May 1983.
20. Bonyuet, Manuel A.: "A Near-Optimal Solution to the Rural Road-Bridge Rehabilitation Problem," (Co-Chair), Department of Industrial Engineering, Texas A&M University, May 1983.
21. Resto-Batalla, Pedro: "A Simulation Analysis of the Operational Issues in Power Generating System Reliability," Department of Industrial Engineering, Texas A&M University, May 1982.

Masters Students (Graduation Dates Shown)

1. Arango Cruz, Andrés, M.E., Department of Industrial Engineering, Texas A&M University, May 2005.

2. Pilla, Venkata, M.E., Department of Industrial Engineering, Texas A&M University, May 2005.
3. Alam, Sohail Noor, M.E., Department of Industrial Engineering, Texas A&M University, May 2004.
4. Awwad, Samer Samir, M.E., Department of Industrial Engineering, Texas A&M University, May 2004.
5. Mithali, Mithali, M.E., Department of Industrial Engineering, Texas A&M University, May 2004.
6. Rajagopalan, Sriram, M.E., Department of Industrial Engineering, Texas A&M University, May 2004.
7. Umashankar, Namdhakumar, M.S., Department of Industrial Engineering, Texas A&M University, May 2004.
8. Gaudana, Sandeep, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
9. Kaza Sriram, Prasad, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
10. Krishnanji, Vijay, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
11. Singh, Barjinder, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
12. Blanco, Alexis Ivan, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
13. Darja, Yonas, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
14. Das, Rudram, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
15. Kumar, Sumit, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
16. Kuriagaram, Saravanan, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
17. Matem, Jennifer, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
18. Sampath, Yeshwanth, M.S., Department of Industrial Engineering, Texas A&M University, December 2004.
19. Shankar, Shivram Ramesh, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
20. Yunda Lozano, Carlos Andrés, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
21. Thangaraj, Sathiesh, M.S., Department of Industrial Engineering, Texas A&M University, December 2004.
22. Venkatakrishnan, Prasanna, M.S., Department of Industrial Engineering, Texas A&M University, December 2004.
23. Canakarambedu, Pramodh Kumar, M.E., Department of Industrial Engineering, Texas A&M University, December 2004.
24. Krishnadevarajan, Pradip Kumar, M.S., Department of Industrial Engineering, Texas A&M University, May 2003.

25. Xavier, Suresh Raja, M.S., Department of Industrial Engineering, Texas A&M University, May 2003.
26. Meyyappan, Murugappan, M.S., Department of Industrial Engineering, Texas A&M University, August 2003.
27. Srinivasan, Srivatsan, M.S., Department of Industrial Engineering, Texas A&M University, 2003.
28. Cristóbal-Vazquez, Isidro Marco, M.S., Department of Industrial Engineering, Texas A&M University, May 2003.
29. Lee, Myung-Yul, M.S., Department of Industrial Engineering, Texas A&M University, May 2003.
30. Chapa, Praveen Kumar, M.S., Department of Industrial Engineering, Texas A&M University, August 2003.
31. Shashikant, Shravan, M.S., Department of Industrial Engineering, Texas A&M University, August 2003.
32. Velupula, Balaraju, M.S., Department of Industrial Engineering, Texas A&M University, August 2003.
33. Dhanabalan, Karthikeyan, M.S., Department of Industrial Engineering, Texas A&M University, August 2003.
34. Manikonda, Vakula Lakshmi, M.S., Department of Industrial Engineering, Texas A&M University, December 2003.
35. Subramaniam, Lakshmi, M.S., Department of Industrial Engineering, Texas A&M University, December 2003.
36. Hernández, Avilán Carlos Andrés, M.E., Department of Industrial Engineering, Texas A&M University, May 2003.
37. Channaraj, Venkatesh, M.E., Department of Industrial Engineering, Texas A&M University, August 2003.
38. Panjetty Arunkumar, M.E., Department of Industrial Engineering, Texas A&M University, August 2003.
39. Gopalkrishna Naresh, M.E., Department of Industrial Engineering, Texas A&M University, August 2003.
40. Vennapusa Chandrakaladhar, M.E., Department of Industrial Engineering, Texas A&M University, December 2003.
41. Arora, Pankaj, M.S., Department of Industrial Engineering, Texas A&M University, May 2002.
42. Mayasari, Claudia, M.E., of Industrial Engineering, Texas A&M University, December 2002.
43. Ongkowidagdo, Tien, M.S., of Industrial Engineering, Texas A&M University, May 2002.
44. Rakhe, Abhijit, P., M.S., of Industrial Engineering, Texas A&M University, August 2002.
45. Ranade Nikhil V., M.S., of Industrial Engineering, Texas A&M University, December 2002.
46. Ranganathan, Srinivas G., M.S., of Industrial Engineering, Texas A&M University, May 2002.
47. Shukla, Ram, M.E., of Industrial Engineering, Texas A&M University, August 2002.

48. Venkataran, Senthilkumaran, M.E., of Industrial Engineering, Texas A&M University, December 2002.
49. Khan, Farhan, M.S., Department of Industrial Engineering, Texas A&M University, May 2001.
50. Mishra, Alope, M.S., Department of Industrial Engineering, Texas A&M University, May 2001.
51. Lee, Kyuman, M.S., M.S., Department of Industrial Engineering, Texas A&M University, May 2001.
52. Monglolsri, Sorajack, M.E., Department of Industrial Engineering, Texas A&M University, May 2001.
53. Maangat, Agandeeep, M.E., Department of Industrial Engineering, Texas A&M University, August 2001.
54. Burgos-Fuentes, Sergio, M.S., Department of Industrial Engineering, Texas A&M University, August 2001.
55. Setyawati, Nina, M.S., Department of Industrial Engineering, Texas A&M University, December 2001.
56. Abujamra, Ramzi, Master of Science, Department of Industrial Engineering, Texas A&M University, May 2000.
57. Han, Yong-Bin, Master of Science, Department of Industrial Engineering, Texas A&M University, August 2000.
58. Byun, Seunghyun, Master of Science, Department of Industrial Engineering, Texas A&M University, December 2000.
59. Jittamai, Phonghai, Master of Science (with thesis), "A Branch-and-Bound Project Assignment Methodology with Generalized Network Strategies for Updating Bounds,"), Department of Industrial Engineering, Texas A&M University, August 1999.
60. Hayashi, Manuel, Master of Science, Department of Industrial Engineering, Texas A&M University, August 1999.
61. Zainuri, Adib, Master of Science, Department of Industrial Engineering, Texas A&M University, August 1999.
62. Lee, Jonghwan, Master of Science, Department of Industrial Engineering, Texas A&M University, December 1999.
63. Cisneros, Jonas Angel, Master of Science, Department of Industrial Engineering, Texas A&M University, August, 1998.
64. Anaya, Ariadi, Master of Science, Department of Industrial Engineering, Texas A&M University, August, 1998.
65. Yu, Xioaho, Master of Science (with thesis), "A Primal Simplex Approach To A Special Class of Generalized Networks," Department of Industrial Engineering, Texas A&M University, August 1997.
66. Barraza-Enriquez, Gabriel, Master of Science, Department of Industrial Engineering, Texas A&M University, August 1997.
67. Lozano, Bernardo, Master of Science, Department of Industrial Engineering, Texas A&M University, December 1997.
68. Utama, Franklin, Masters of Science, Department of Industrial Engineering, Texas A&M University, December 1997.
69. Balasubramanian, R., Master of Science, Department of Industrial Engineering,

- Texas A&M University, December 1996.
70. Chang, Sung-Ho, Master of Science, Department of Industrial Engineering, Texas A&M University, December 1994.
 71. Lakshmi, Narasimhan, Master of Science, Department of Industrial Engineering, Texas A&M University, August 1994.
 72. Djaja, Jacob, Master of Science, Department of Industrial Engineering, Texas A&M University, May 1994.
 73. Paz, Jose C., Master of Science, Department of Industrial Engineering, Texas A&M University, May 1993.
 74. Castaño-Pardo, Alberto, Master of Science (with thesis), "A Game Theory Based Highway Cost Allocation Method with Non-Denumerable Vehicle Passage," Department of Industrial Engineering, Texas A&M University, May 1992.
 75. Ryan, James P, Master of Science (with thesis), "An Algorithm for the Solution of a Traveling Salesman Problem to Minimize the Average Time to Demand Satisfaction," Department of Industrial Engineering, Texas A&M University, August 1992.
 76. Dickerson, Jerry D., Master of Science, Department of Industrial Engineering, Texas A&M University, December 1992.
 77. Joo, Ki See, Master of Science, Department of Industrial Engineering, Texas A&M University, May 1992.
 78. Kim, Seongbae, Master of Science (with thesis), "A Network-Transformation Procedure for Finding Minimal-Cost Flows in Networks with Variable Lower Bounds," Department of Industrial Engineering, Texas A&M University, August 1991.
 79. Kuyumcu, Ahmet, Master of Science (with thesis), "A Decomposition Approach to Project Compression in CPM/PERT Networks with Concave Activity Cost Functions," Department of Industrial Engineering, Texas A&M University, August 1991.
 80. Djong, Hon, Master of Science, Department of Industrial Engineering, Texas A&M University, May 1991.
 81. Martinez, Argilio, Master of Science, Department of Industrial Engineering, Texas A&M University, August 1991.
 82. Rebolledo, Carlos, Master of Science (with thesis), "A Computerized Methodology for Selecting Projects in Multi-Period Bridge Management Systems," Department of Industrial Engineering, Texas A&M University, August 1990.
 83. Prahlad, Prashant, Master of Science, Department of Industrial Engineering, Texas A&M University, May 1990.
 84. Wu, Tai-His, Master of Science, Department of Industrial Engineering, Texas A&M University, December 1990.
 85. Park, Yongsoo, Master of Science, Department of Industrial Engineering, Texas A&M University, May 1990.
 86. Freyre, German, Master of Science (with thesis), "A Regional Economic Impact Model for Identifying the Relationship Between Transportation Investments and Economic Development," Department of Industrial Engineering, Texas A&M University, December 1989.
 87. Desai, Nayneshkumar, Master of Science, Department of Industrial Engineering,

- Texas A&M University, December 1989.
88. Noce, Roberto, Master of Science (with thesis), "A Comparison of Mathematical and Heuristic Methodologies for the Development of Salary Administration Guidelines," Department of Industrial Engineering, Texas A&M University, May 1989.
 89. Parker, Steve, Master of Science, Department of Industrial Engineering, Texas A&M University, May 1989.
 90. Kim, Okwoo, Master of Science, Department of Industrial Engineering, Texas A&M University, May 1989.
 91. Kabbani, Nader M., Master of Science (with thesis), "A Network Approach for Identifying Minimum Cost Aircraft Routing and Fuel-Allocating Decisions," Department of Industrial Engineering, Texas A&M University, December 1988.
 92. Patel Dipak, Master of Science (with thesis), "The Development and Implementation of an Interactive Microcomputer Package for the Statistical Analysis of Industrial Experiments," Department of Industrial Engineering, Texas A&M University, December 1986.
 93. Nordstrom, Eric M., Master of Science (with thesis), "An Analysis of the Use of Consultants to Perform Engineering Tasks," Department of Industrial Engineering, Texas A&M University, December 1985.
 94. Mayorga, Glauco, Master of Engineering, Department of Industrial Engineering, Texas A&M University, December 1984.
 95. Calkins, Christine C., Master of Engineering, Department of Industrial Engineering, Texas A&M University, May 1984.
 96. Patel, Rajen, Master of Science (with thesis), "An Analysis for Optimal Selection of Materials and Thicknesses in Flexible Pavements," Department of Industrial Engineering, Texas A&M University, August 1984.
 97. Vivas-Marquez, Carlos E., Master of Engineering, Department of Industrial Engineering, Texas A&M University, May 1983.
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