

CURRICULUM VITA

Dr. Jorge A. Vanegas

Associate Professor

School of Civil and Environmental Engineering

Georgia Institute of Technology

(Complete Academic and Professional Record)

I. Education

Undergraduate and Graduate Education

- Ph. D., January 1988, Civil Engineering, Construction Engineering and Management Program, Stanford University, Stanford, California, 1985 – 1987
- M. S., June 1985, Civil Engineering, Construction Engineering and Management Program, Stanford University, Stanford, California, 1983 – 1985
- B. S., September 1979, Architecture, Universidad De Los Andes, Bogotá, Colombia, 1974 – 1979

Professional Development Courses/Seminars/Workshops/Forums Attended

- *Ibero-American Summit on Engineering Education*, a Regional Conference of the iNEER Network, Sao Jose Dos Campos, Brazil, March 24-26, 2003
- *Education for a Sustainable and Secure Future*, 3rd National Conference on Science, Policy and the Environment, sponsored by the National Council for Science and the Environment (NCSE), Washington, DC, January 30-31, 2003
- *Homeland Security and Roadmap Implementation Workshop*, sponsored by FIATECH (with support from NSF and NIST), National Conference Center, Lansdowne, VA, November, 2002 (invited)
- *DoD Maintenance Symposium & Exhibition*, Reno, Nevada, October 28-30, 2002
- *Executive Introduction to Sustainability*, training course offered by Atkisson, Inc. to U.S. Army personnel (military and civilian), Ft. Lewis, Tacoma, Washington, January 15 & 16 (morning), 2002
- *Building the Pyramid: A Sustainability Training and Planning Tool*, training course offered by Atkisson, Inc. to U.S. Army personnel (military and civilian), Ft. Lewis, Tacoma, Washington, January 15 & 16 (afternoon), 2002
- *Sustainable Communities: Science & Solutions*, 2nd National Conference on Science, Policy and the Environment, sponsored by the National Council for Science and the Environment (NCSE), Washington, DC, December 6-7, 2001
- *Earth Systems Engineering Workshop*, sponsored by NSF at the University of Colorado at Boulder, Boulder, Colorado, October 4-6, 2001
- *Introduction to the United States Army*, training course offered by the Army Environmental Center to U.S. Army personnel (civilian), Aberdeen Proving Grounds, Edgewood, Maryland, July 9-13, 2001
- *Executive Sustainability Conference*, sponsored by Forces Command (FORSCOM) for Fort Bragg, Fayetteville, South Carolina, April 17-19, 2001
- *The Design and Construction Marketing Forum*, presented by the Society for Marketing Professional Services, Atlanta, Georgia, October 27, 2000
- *Introduction to Lean Construction*, training course offered by the Lean Construction Institute, San Mateo, California, April 16 & 17, 1999
- *Creativity in Engineering Education Workshop*, offered by the Product Design Program in the Department of Mechanical Engineering at Stanford University, sponsored by the Engineering Foundation, Stanford, California, August 17-28, 1998
- *Estimating Seminar on MC²*, training course offered by Management Computer Controls, Inc., Memphis, Tennessee, July 23-24/1992
- *National Effective Teaching Institute*, sponsored by American Society for Engineering Education, Toledo, Ohio, June 25-27/1992

- *Motorola/Purdue Total Quality Management University Challenge*, sponsored by Motorola University, Schaumburg, Illinois, May 31–June 5/1992
- *Geotechnical Instrumentation including Computerized Data Acquisition*; (1.8 CEU's), University of Wisconsin, Milwaukee, Wisconsin, September 25–27/1991
- *Construction Company Administration*, Continuing Education Program Certificate, Universidad Nacional de Colombia and Centro Nacional de Estudios de la Construcción, Bogotá, Colombia, September 1981 – August 1982 (6 courses; 28 hrs. each)

II. Academic and Professional Appointments

Current Appointments at Georgia Tech

- *Group Leader*, CEM Program, School of CEE, GT, Atlanta, Georgia, since April 15, 2002; (previously from January 1, 1994, to August 15, 2000)
- *Policy Analyst and Advisor*, Army Environmental Policy Institute (AEPI) at the Georgia Institute of Technology, Atlanta, Georgia, since August 1, 2000; (Intergovernmental Personnel Act appointment; 2000 – 2001 academic year at 20%; 2001 – 2002 academic year at 40%; 2002 – 2003 academic year at 20%)
- *The Fred and Teresa Estrada Professor*, College of Engineering, Georgia Institute of Technology, Atlanta, Georgia, since August 15, 1999 (termed appointment; maximum five years)
- *Associate Professor*, School of Civil and Environmental Engineering (CEE), Construction Engineering and Management (CEM) Program, Georgia Institute of Technology (GT), Atlanta, Georgia, since May 1, 1993 (granted tenure in 1996)

Past Appointments at Georgia Tech

- *Co-Director*, Construction Resources Center, College of Architecture, Georgia Institute of Technology, Atlanta, Georgia, September 15, 1997 – May 15, 2001 (joint appointment in the College of Architecture at 20%)
- *Associate Director of Educational Programs*, Center for Sustainable Technology (CST), GT, Atlanta, Georgia, July 1, 1994, – June 30, 1997

Other Appointments

- *Visiting Scholar*, Departamento de Ingeniería Civil, Programa de Maestría en Construcción, Universidad de los Andes, Bogotá, Colombia:
 - June 2003 (scheduled; one week)
 - June 2002 (one week)
 - June 2001 (two weeks)
 - June 2000 (two weeks)
 - June 1999 (two weeks)
 - June 1998 (two weeks)
- *Visiting Scholar*, Escuela de Ingeniería Civil y Administración, Programa de Maestría en Administración de la Construcción, Universidad Panamericana – Sede Guadalajara, Guadalajara, Mexico:
 - June & July 2003 (scheduled; one week each)
 - June & July 2002 (one week each)
 - May 2000 (two weeks)
 - May 1999 (two weeks)
- *Special Academic Consultant*, The Winter Group of Companies (Winter Properties, The Winter Construction Company, and Winter Environmental Services), Atlanta, Georgia, January 1999 – July 1999 (within the administrative leave from the School of CEE during the 1999 Winter and Spring Quarters)
- *Guest Fellow*, Army Environmental Policy Institute (AEPI) at the Georgia Institute of Technology, Atlanta, Georgia, January 1999 – July 1999 (within the administrative leave from the School of CEE during the 1999 Winter and Spring Quarters)
- *Visiting Scholar*, Facultad de Ingeniería, Programa de Maestría en Construcción, Universidad Autónoma de Yucatán, Mérida, Mexico, July–August 1997 (six weeks)

- *Visiting Eminent Scholar*, Del E. Webb School of Construction, Arizona State University, Tempe, Arizona, July – August 1995 (five weeks)
- *Assistant Professor*, School of Civil Engineering and the Division of Construction Engineering and Management, Purdue University, West Lafayette, Indiana, August 15, 1988 – May 1, 1993
- *Acting Assistant Professor*, Department of Civil Engineering Construction Engineering and Management Program, Stanford University, Stanford, California, January 1, 1988 – July 31, 1988
- *Graduate Student Teaching and Research Assistant*, Stanford University, Stanford, California, September 1984 – November 1987
- *Instructor*, School of Architecture, Universidad de los Andes, Bogotá, Colombia, Spring Semester 1983
- *Architect, Cost Analyst & Other Special Assignments*, Planning and Estimating Department, Cuéllar Serrano Gómez y Cía. Ltda., Bogotá, Colombia, May 1981 – September 1983
- *High School Mathematics Teacher*, 10th and 11th grades, Colegio Nueva Granada, Bogotá, Colombia, January 1978 – June 1980

III. Research Activities

A. Principal Domains of Research Activities

Technical Domain

- Built Environment Sustainability and Security (facilities and civil infrastructure systems)
- Advanced strategies, tools, and methods for integrated capital asset delivery and management
- Design/construction integration in the development and rehabilitation of facilities and civil infrastructure systems
- Constructability programs and advanced modularization technologies
- Advanced strategies, tools, and methods for affordable housing

Education Domain

- Undergraduate and graduate curricula development
- Continuing education and technology transfer program development

B. Sponsored Projects As Principal and Co-Principal Investigator

(Additional details provided in Attachment A)

Principal Funded Projects – Technical Domain

1. *Policy Development and Implementation for Sustainable Army Installations (Phase III)*, Army Environmental Policy Institute, August 2002 (12 months), Proposal Author and Project PI
2. *Compilation of the State-of-the-Art of Sustainability in Construction*, Granite Construction Inc., June 2001 (3 months), Proposal Author and Project PI
3. *Policy Development and Implementation for Sustainable Army Installations (Phase II)*, Army Environmental Policy Institute, August 2001 (12 months), Proposal Author and Project PI
4. *Modularization, Pre-assembly, and Off-site Construction*, Construction Industry Institute – Research Team 171, September 2000, Proposal Co-Author and Project Co-PI (with Haas, U. Texas at Austin; and Tatum, Stanford University)
5. *Policy Development and Implementation for Sustainable Army Installations (Phase I)*, Army Environmental Policy Institute, August 2000 (12 months), Proposal Author and Project PI
6. *Sustainable Affordable Housing Education, Research, and Outreach for the U.S. and the Americas*, College of Engineering Fred and Teresa Estrada Professorship at GT, August 1999 (5 years), Nominated and Selected as Recipient
7. *Environmentally Conscious Design and Construction of Facilities and Civil Infrastructure Systems*, Georgia Tech Foundation through the College of Engineering, January 1999 (6 months), Proposal Author and Project PI

8. *Technology-based Economic Development for the 5th District of the State of Georgia*, Clark Atlanta University, January 1999 (6 months), Proposal Co-Author and Project Co-PI (with Kangari/BC, GT)
9. *Environmentally Conscious Design and Construction of Affordable Housing*, National Science Foundation – CONACyT Collaborative Research Opportunities (CRO) Program, April 1997 (6 months), Proposal Author and Project PI
10. *Environmentally Conscious Design and Construction Research Initiative*, National Science Foundation – Research Experiences for Undergraduates (REU) Program, April 1997 (6 months), Proposal Author and Project PI
11. *Advanced Computer Laboratory for Environmentally Conscious Design and Construction Research Initiative*, Georgia Research Alliance – Equipment Grant, April 1997 (1 year), Proposal Author and Project PI
12. *Innovative Practices for Cost Effective Projects*, Construction Industry Institute, January 1995 (3 years), Proposal Author and Project PI
13. *A Workshop on Life Cycle Environmental Costing for Weapons Systems Development, Acquisition, Logistics and Disposal*, Delta Research Corp./U.S. Air Force, January 1994 (4 months), Invited and Selected as Co-Chair (with Frost/CEE, GT)
14. *Integrated Design/Construction Research Program for Infrastructure Rehabilitation*, National Science Foundation – National Young Investigator (NYI) Award [Grant No. CMS-9396314], August 1992 (5 years), Nominated and Selected, PI
15. *An INDOT Constructability Program and Constructability Lessons Learned Integrated Multimedia System*, Joint Highway Research Project (JHRP)–Indiana Department of Transportation/Purdue, January 1993 (1 year), Proposal Co-Author and Research Associate (with McCullough/CE, Purdue)
16. *Implementation of Computer Technologies in Project Field Environments*, Bechtel, Inc., Engineering and Construction Technologies, January 1992 (1 year), Selected, PI
17. *Real-Time Instrumentation and Sensors During Construction on Co-Generation Project Jobsites*, Bechtel, Inc., Engineering and Construction Technologies, January 1991 (10 months), Selected, PI

Principal Funded Projects – Education Domain

1. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel, Lorain Tubular Company, LLC – Quench and Temper Facility Project (through Continuing Education – College of Engineering), June 2001 (1 month), Proposal Author and Project PI
2. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel Gary Works – Nos. 2 & 3 Nos. 2 and 3 Batteries Pushing Emission Controls (PEC) Project (through Continuing Education – College of Engineering), March 2001 (1 month), Proposal Author and Project PI
3. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel Mon Valley Works – 84” Continuous Pickle Line Upgrade Project (through Continuing Education – College of Engineering), February 2001 (1 month), Proposal Author and Project PI
4. *Development and Delivery of a Project Alignment and Partnering Maintenance Seminar*, U.S. Steel Gary Works – Boiler House Upgrade Phase II Project (through Continuing Education – College of Engineering), February 2001 (1 month), Proposal Author and Project PI
5. *Development and Delivery of a Technical Workshop on Technological Innovation in the Global Construction Industry: Trends, Challenges, and Opportunities for CEMEX*, CEMEX (through Continuing Education – College of Engineering), October 2000 (2 months), Proposal Author and Project PI
6. *Development and Delivery of a Technical Workshop on a Conceptual Framework, Roadmap, and Tools for the Implementation of a Constructability Program within Setal Engenharia e Construções S.A.*, Setal Engenharia e Construções S.A., Setal Construções (through Continuing Education – College of Engineering), September 2000 (3 months), Proposal Author and Project PI
7. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel Gary Works – No. 1 Caster EMC Replacement Project (through Continuing Education – College of Engineering), January 2000 (1 month), Proposal Author and Project PI
8. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel Gary Works – No. 2 QBOP Tuyere Cooling–Propane Project (through Continuing Education – College of Engineering), January 2000 (1 month), Proposal Author and Project PI

9. *Development and Delivery of a Special Course/Technical Visit on Strategies, Methods, and Tools for Effective Management of Residential Construction Enterprises & Projects*, Associação das Empresas do Mercado Imobiliário de Pernambuco (through Continuing Education – College of Engineering), November 1999 (1 month), Proposal Author and Project PI
10. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel Gary Works – BH Upgrade Project (through Continuing Education – College of Engineering), July 1999 (1 month), Proposal Author and Project PI
11. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel Gary Works – 20/20 Projects: Sub-lance, Oxygen Lance, Auxiliaries, and Charge Weigh (through Continuing Education – College of Engineering), April 1999 (1 month), Proposal Author and Project PI
12. *Development and Delivery of a Project Alignment and Partnering Maintenance Seminar*, U.S. Steel Gary Works – New Hydraulic Coilers Project (through Continuing Education – College of Engineering), January 1999 (2 months), Proposal Author and Project PI
13. *Faculty for the Future Program*, GE Fund, October 1998 (3 years), Project Co-PI (with Wepfer/ME, May/ECE, Baker/CEE, GT)
14. *Development and Delivery of a Project Alignment and Partnering Development Seminar*, U.S. Steel Gary Works – New Hydraulic Coilers Project (through Continuing Education – College of Engineering), May 1998 (2 months), Proposal Author and Project PI
15. *Development and Delivery of a Course on Advanced Strategies, Techniques, and Tools for Effective Project Management (in Spanish)*, Siemens Energy & Automation, Inc. (through Continuing Education – College of Engineering), February 1998 (2 months), Proposal Author and Project PI
16. *An Integrated Case-Based Environment for Design*, EduTech at Georgia Tech, April 1995 (6 months), Project Co-PI (with Chinowsky/CEE, Lonman/ARCH, GT)
17. *A Curriculum for Infrastructure Assessment, Rehabilitation, and Reconstruction*, National Science Foundation – Combined Research Curriculum Development (CRCD) Program [Grant No. EEC-9420522], September 1994 (3 years), Proposal Co-Author and Project Co-PI (with Rix/CEE, Zureick/CEE, Baker/CEE, Jacobs/CEE, GT)
18. *Georgia Industrial Fellowships for Teachers*, National Science Foundation (supplement to existing NSF-CCD & NYI awards), Summer 1994 (8 weeks), Proposal Author and Project PI
19. *A Curriculum for Sustainable Development and Technology*, GE Fund, January 1994 (4 years), Proposal Principal Author and Project Co-PI (with White/COE, Chameau/CEE, GT)
20. *Curriculum for an Integrated Course Sequence in Sustainable Development and Technology*, National Science Foundation – Course and Curriculum Development (CCD) Program [Grant No. DUE-9354483], January 1994 (2 years), Proposal Principal Author and Project Co-PI (with Chameau/CEE, GT)
21. *NASA Undergraduate Student Researchers Program*, NASA, September 1993 (3 years), Invited and Selected as Project PI
22. *An Integrated Multimedia Support System for Teaching Sustainable Development and Technology Using a Problem-Based, Case-Based and Collaborative Learning and Reasoning Approach*, EduTech at Georgia Tech, June 1993 (1 year), Proposal Author and Project Co-PI (with Guzdial/COC, GT)
23. *Junior Faculty Grant Award (Renewal)*, GE Foundation “Faculty for the Future” Program, September 1992 (1 year), Selected, PI
24. *Real-time Integrated Computer-Aided Instruction: An Electronic Syllabus for Undergraduate Civil Engineering Education*, Purdue Engineering Dean's Club Creative Undergraduate Instruction Project Program, February 1992 (1 year), Proposal Author and Project PI
25. *Junior Faculty Grant Award*, GE Foundation “Faculty for the Future” Program, October 1991 (1 year), Selected, PI
26. *Development of Recruitment and Education Advancement Committee for Hispanics (REACH) and Retention Programs for SHPE– Purdue Student Chapter*, Purdue Affirmative Action Incentive Grants Competition, November 1990 (1 year), Proposal Author and Project PI

27. *Integrated Video/Computer Technology in Civil Engineering Education*, Purdue Engineering Dean's Club Creative Undergraduate Instruction Project Program, January 1989 (1 year), Proposal Co–Author and Project Co–PI (with Nelson/CE, Purdue)

C. As Research Associate/Assistant

1. *Construction Robotic Equipment Management Systems (CREMS)*, Research Associate (with Skibniewski), Funded by Ohbayashi Corporation at Purdue University, September 1988 (9 months)
2. *Identification of Constructability Knowledge Requirements for the Preliminary Design of Buildings*, Research Associate (with Tatum), Center for Integrated Facility Engineering (CIFE) at Stanford, January 1988 (6 months)
3. *A Model for Design/Construction Integration During the Initial Phases of Design for Building Construction Projects*, Doctoral Dissertation, funded by Prof. C.B. Tatum's NSF Presidential Young Investigator Award at Stanford University, April 1986 (22 months)
4. *Constructability Improvement Using Prefabrication, Pre–assembly and Modularization*, Research Assistant and Co–Author Final Report (with Tatum and Williams), Funded by Constructability Task Force of the Construction Industry Institute at Stanford University, September 1985 (15 months)
5. *Constructability Improvement During Conceptual Planning*, Research Assistant and Co–Author Final Report (with Tatum and Williams), Funded by Constructability Task Force of the Construction Industry Institute at Stanford University, September 1984 (1 year)

IV. Intellectual Contributions

A. Refereed Publications

1. RT171, “*Prefabrication, Preassembly, Modularization, and Offsite Fabrication in Industrial Construction: A Framework for Decision-Making*” Research Summary prepared by Research Team 171 (J. Vanegas was a Contributing Author), The Construction Industry Institute (CII), University of Texas–Austin, CII Publication RS171-1, 2002 (This publication was reviewed and approved by the CII Product Review Board)
2. RT171, “*Prefabrication, Preassembly, Modularization, and Offsite Fabrication: Decision Framework and Tool*” Implementation Resource prepared by Research Team 171 (J. Vanegas was a Contributing Author), The Construction Industry Institute (CII), University of Texas–Austin, CII Publication IR171-2, 2002 (This publication was reviewed and approved by the CII Product Review Board)
3. Pearce, Annie R. and Vanegas, Jorge A. (2002). “*A parametric review of the built environment sustainability literature,*” International Journal of Environmental Technology and Management, Inderscience Enterprises, Ltd., Volume 2, Nos. 1/2/3, 2002, pp. 54-93
4. Pearce, Annie R. and Vanegas, Jorge A. (2002). “*Defining sustainability for built environment systems: an operational framework,*” International Journal of Environmental Technology and Management, Inderscience Enterprises, Ltd., Volume 2, Nos. 1/2/3, 2002, pp. 94-113
5. RT112, “*2% Engineering–Can It Work for You?*” Research Summary prepared by Research Team 112 (J. Vanegas was a Principal Author), The Construction Industry Institute (CII), University of Texas–Austin, CII Publication 112–1 (This publication was reviewed and approved by the CII Product Review Board)
6. Hastak, M., Halpin, D., and Vanegas, J. (1996) “*COMPASS: A New Paradigm for Project Cost Control Strategy and Planning,*” Journal of Construction Engineering and Management, (ASCE), Vol. 122, No. 3, pp. 254–264
7. Reyna, S., Vanegas, J., and Khan, A. (1994) “*Construction Technologies for Sewer Rehabilitation,*” Journal of Construction Engineering and Management, (ASCE), Vol. 120 No. 3, pp. 467–487
8. Reyna, S., Delleur, J., and Vanegas, J. (1994) “*Multi–attribute Rehabilitation of Storm or Combined Sewer Systems,*” in Urban Drainage Rehabilitation Programs and Techniques, edited by William A. Macaitis, (ASCE), pp. 55–72
9. Vanegas, J., Halpin, D., and AbouRizk, S. (1994) “*Integrating Process Simulation into Construction Engineering Education,*” European Journal of Engineering Education, Vol. 19/1, pp. 51–67

10. Hastak, M., Vanegas, J., and Puyana–Camargo, M. (1993) “*Time–Based Competition: A Competitive Advantage Tool for A/E/C Firms*,” *Journal of Construction Engineering and Management*, (ASCE), Vol. 119 No. 4, pp. 785–800
11. Vanegas, J., Bravo, E., and Halpin, D. (1993) “*Simulation Technologies for Planning Heavy Construction Processes*,” Special Issue of the *Journal of Construction Engineering and Management*, (ASCE), Vol. 119 No. 2, pp. 336–354
12. Krippaehne, R., G. McCullough, B., and Vanegas, J. (1992) “*Vertical Business Integration Strategies for Construction*,” *Journal of Management in Engineering*, (ASCE), Vol. 8, No. 2, pp. 153–166
13. Vanegas, J. (1991) “*Use of Real–Time Computer–Generated Image Displays for Classroom Instruction*,” *CoED Journal*, Computers in Education Division of ASEE, Vol. I, No. 2, pp. 6–11
14. Russell, J., Skibniewski, M., and Vanegas, J. (1990) “*A Framework for a Construction Robot Fleet Management System*,” *Journal of Construction Engineering and Management*, (ASCE), Vol. 116, No. 3, pp. 448–462

B. Peer–Reviewed Conference Publications

1. Mulva, S., and Vanegas, J. (2002) “*A Conceptual Framework for Integrated Program and Project Management*,” Proceedings of the First International Conference on Construction in the 21st Century - Challenges and Opportunities in Management and Technology, Miami, Florida, April, 2002
2. Vanegas, J. (2001) “*The Project Definition Package: A Cornerstone for Enhanced Capital Project Performance*,” Proceedings of the 2001 World Congress of the International Council for Research and Innovation in Building and Construction (CIB), Wellington, New Zealand (paper in conference CD ROM)
3. Vanegas, J., and Pearce, A. (2000) “*Drivers for Change: An Organizational Perspective on Sustainable Construction*,” Proceedings of the ASCE Construction Congress VI, American Society of Civil Engineers, Reston, Virginia, pp. 406–415
4. Pearce, A., Gregory, R., and Vanegas, J. (2000) “*Resource Allocation and Problem Prioritization for Sustainable Facilities and Infrastructure*,” Proceedings of the ASCE Construction Congress VI, American Society of Civil Engineers, Reston, Virginia, pp. 396–405
5. Vanegas, J., and Chinowsky, P. (1996) “*Combining Practice and Theory in Construction Education Curricula*,” Proceedings of the ASEE 1996 Annual Conference, American Society for Engineering Education, Washington, D.C., pp. 1221:1–1221:6
6. Chinowsky, P., and Vanegas, J. (1995) “*Facilitating Interdisciplinary Civil Engineering Education Through a Living Laboratory*,” Proceedings of the ASEE 1995 Annual Conference, American Society for Engineering Education, Washington, D.C., pp. 596–600
7. Chinowsky, P., and Vanegas, J. (1995) “*An Interactive Case–Based Environment to Integrate Design and Construction*,” Proceedings of the ASEE 1995 Annual Conference, American Society for Engineering Education, Washington, D.C., pp. 2206–2210

C. Books and Book Chapters

1. In the process of editing the “*Primer on Sustainability for Engineers* (working title),” targeted for publication during the summer of 2003, for the ASCE Technical Activities Council Committee on Sustainability. This book will be published by ASCE.
2. In the process of editing the “*Compendium of Sustainability within the U.S. Army* (working title),” targeted for publication during the summer of 2003, for the Army Environmental Policy Institute (AEPI). This book will be published by AEPI.
3. In the process of completing “*A Framework for Sustainability within the U.S. Army* (working title),” targeted for publication during the summer of 2003, for the Army Environmental Policy Institute (AEPI). This book will be published by AEPI.
4. Delleur, J.W., Reyna, S., and Vanegas, J. (1998) “*Sewerage Rehabilitation*,” Chapter 6 of *Hydroinformatics Tools for Planning, Design, Operation and Rehabilitation of Sewer Systems*, edited by Marsalek, J., Maksimovic, C., Zeman, E., and Price, R., NATO Advanced Study Institute Series, Kluwer Academic Publishers, Dordrecht, The Netherlands

D. Other Publications

Technical Conference Proceedings (as Co-editor)

1. Vanegas, J., and Chinowsky, P. (1996) Editors. "Computing in Civil Engineering," Proceedings of the Third Congress of Computing in Civil Engineering held in Anaheim, California, ASCE Press, New York, NY
2. DuBose, J., and Vanegas, J. (1996) Editors. "Sustainable Development: Creating Agents of Change," Proceedings of the 1995 Engineering Foundation and AAES Conference on the Role of Engineers in Sustainable Development held in Snowbird, Utah, American Association of Engineering Societies (AAES), Washington, D.C.

Papers in Technical Conference Proceedings – Technical Domain (As Author and Co-author)

1. Vanegas, J., Pearce, A., and Bosch, S. (2002) "*Built Environment Sustainability: An Integrated Approach to Education, Research, and Outreach*," Proceedings of the International Conference on Engineering Education for Sustainable Development, Delft University of Technology, Delft, The Netherlands, October, 2002
2. Vanegas, J., Pearce, A., and Bosch, S. (2002) "*An Engineering Undergraduate/Graduate Course on Sustainable Design and Construction*," Proceedings of the International Conference on Engineering Education for Sustainable Development, Delft University of Technology, Delft, The Netherlands, October, 2002
3. Vanegas, J., and Walrath, L. (2002) "*Sustainable Army Installations*," Proceedings of the Second International Conference on Urban Regeneration and Sustainability, Segovia, Spain, July 3 – 5, 2002
4. Vanegas, J. (2002) "*Army Installation Sustainability: A Tier 1 Sustainability Analysis Process to Support Army-wide Decision-making*," Proceedings of the 28th Environmental and Energy Symposium and Exhibition – Integrating the Dual Goals of Environment and Energy for Sustainable Federal Operations, Charleston, South Carolina
5. Vanegas, J. (2002) "*Army Installation Sustainability: A Tier 2 Sustainability Analysis Process to Support Installation-specific Decision-making*," Proceedings of the 28th Environmental and Energy Symposium and Exhibition – Integrating the Dual Goals of Environment and Energy for Sustainable Federal Operations, Charleston, South Carolina
6. Vanegas, J. (2001). "*Conceptual Framework for the Implementation of Sustainability in Army Installations*," Proceedings of the 27th Environmental Symposium and Exhibition – A New Era for Federal Environmental Leadership, Management, and Technology, Austin, Texas
7. Chinowsky, P., Vanegas, J. (2000) "*Technological Infrastructure for Enterprise Management In Construction Organizations*," Proceedings of the CIB W96 Conference on Design Management in the Architectural and Engineering Office, Atlanta, Georgia
8. Molenaar, K., Vanegas, J., and Martinez, H. (2000) "*Appropriate Risk Allocation in Design-Build Request for Proposals (RFP's)*," Proceedings of the ASCE Construction Congress VI, American Society of Civil Engineers, Reston, Virginia, pp. 1083–1092
9. Pearce, Annie R. and Vanegas, Jorge A. (1999). "*Built Environment Sustainability: Indicators, Evaluation, and Decision Making*," Proceedings, Second Annual EDF Workshop on Excellence in Building, Paris, France.
10. Vanegas, J. (1999) "*Sustainability and Civil Engineering: From Concept to Action*," Proceedings of the Structures for the Future – The Search for Quality, of the International Association for Bridge and Structural Engineering, Rio de Janeiro, Brazil
11. Carpenter, S., and Vanegas, J. (1998) "*Towards Sustainable Civil Infrastructure Systems*," Proceedings of the Sustainable Technology and Complex Ecological and Social Systems Conference, of the forty-second Annual Meeting of the International Society for the Systems Sciences, Atlanta, Georgia
12. Vanegas, J., and Tuang, N. (1997) "*A Global System of Acquisition and Dissemination of Lessons Learned*," Proceedings of Construction Congress V, American Society of Civil Engineers, Minneapolis, Minnesota
13. Vanegas, J., and Pearce, A. (1997) "*Sustainable Design and Construction Strategies for the Built Environment*," Proceedings of the Conference on Building Energy—Ensuring a Sustainable Future of the Northeast Sustainable Energy Association (NESEA), Cromwell, Connecticut
14. Pearce, Annie R., DuBose, Jennifer R., and Vanegas, Jorge A. (1996). "*Rehabilitation vs. Greenfield Construction Using Sustainability as a Decision Criterion*," Proceedings of the 1996 Green Building Conference, Wilmington, North Carolina

15. Vanegas, Jorge A., (1995) "*Recent Developments in Environmental Technologies,*" Proceedings of the Third U.S.–Korea Science and Technology Forum, Washington, D.C.
16. Vanegas, J., DuBose, J., and Pearce, A.(1995) "*Sustainable Technologies for the Building Construction Industry,*" Proceedings of the 1995 Symposium on Design for the Global Environment, College of Architecture, Georgia Institute of Technology, Atlanta, Georgia
17. Pearce, A., Hastak, M., and Vanegas, J. (1995) "*A Decision Support System for Construction Materials Selection Using Sustainability as a Criterion,*" Proceedings of the 28th Annual Conference of the National Conference of States on Building Codes and Standards (NCSBCS), Albuquerque, New Mexico
18. Vanegas, J., and Hastak, M. (1995) "*A Multimedia Decision Support System for Evaluating the Use of Modularization in Industrial Construction,*" Proceedings of the ASCE Second Congress on Computing in Civil Engineering, American Society of Civil Engineers, Atlanta, Georgia
19. Maldonado, F., Hastak, M., and Vanegas, J. (1995) "*Conceptual Framework for Sustainable Quality Management,*" Proceedings of the 1995 Annual Conference of the Canadian Society for Civil Engineering, Ottawa, Ontario
20. Vanegas, J., and DuBose, J. (1995) "*Sustainable Technology Developments of Interest to the Paper Industry,*" Proceedings of the 1995 TAPPI International Environmental Conference, Technical Association for the Pulp and Paper Industry, Atlanta, Georgia
21. Vanegas, J., and Op den Bosch, A. (1994) "*Using Simulation and Visualization Technologies to Strengthen the Design/Construction Interface,*" Proceedings of the 1994 Winter Simulation Conference, Orlando, Florida
22. Vanegas, J., and Smith, G. (1994) "*Multimedia Technologies for Civil and Construction Engineering Professional Practice,*" Proceedings of the ASCE First Congress on Computing in Civil Engineering, American Society of Civil Engineers, Washington, D.C.
23. Hastak, M., Halpin, D., and Vanegas, J. (1994) "*A Decision Support System for the Expansion of International Operations of A/E/C Firms,*" Proceedings of the ASCE First Congress on Computing in Civil Engineering, American Society of Civil Engineers, Washington, D.C.
24. Huang, R., and Vanegas, J. (1994) "*Graphical–Based Productivity Transient Investigation Using DISCO (Dynamic Interface for Simulation of Construction Operations),*" Proceedings of the ASCE First Congress on Computing in Civil Engineering, American Society of Civil Engineers, Washington, D.C.
25. Vanegas, J. (1994) "*Strengthening the Design/Construction Interface Using Electronic Imaging, Document Management and Work Flow,*" Proceedings of the ASCE First Congress on Computing in Civil Engineering, American Society of Civil Engineers, Washington, D.C.
26. Vanegas, J. (1993) "*An Integrated Design/Construction Research Program for Infrastructure Rehabilitation,*" Proceedings of the ASCE Specialty Conference on Guessing the Future: Coping with Uncertainty in Infrastructure Planning & Infrastructure Management: New Challenges, New Methods, American Society of Civil Engineers, Denver, Colorado
27. Vanegas, J., and Halpin, D. (1993) "*Use of Simulation for Claims Analysis,*" Proceedings of the ASCE Fifth International Conference on Computing in Civil and Building Engineering, American Society of Civil Engineers, Anaheim, California
28. Hastak, M., and Vanegas, J. (1993) "*Decision Support Systems in Construction Management,*" Proceedings of the ASCE Fifth International Conference on Computing in Civil and Building Engineering, American Society of Civil Engineers, Anaheim, California
29. Vanegas, J. (1993) "*Integrated Acquisition, Storage and Retrieval Multimedia System for Constructability Lessons Learned,*" Proceedings of the ASCE Fifth International Conference on Computing in Civil and Building Engineering, American Society of Civil Engineers, Anaheim, California
30. Reyna, S., and Vanegas, J. (1993) "*Optimal Planning of Combined Sewer Rehabilitation,*" Proceedings of the ASCE Water Resources Planning and Management Division 1993 Specialty Conference, American Society of Civil Engineers, Seattle, Washington
31. Vanegas, J. (1993) "*A Constructability Lessons Learned System for Infrastructure Rehabilitation Using Digital Image Processing,*" Proceedings of the Engineering Foundation/National Science Foundation Conference on Digital Image Processing: Techniques and Applications for Civil Engineering, Kona, Hawaii

32. Vanegas, J., Caupin, G., and Thorsteinsson, U. (1991) "*Information Technology and Project Management*," Conclusion Paper in the Proceedings of the International Symposium on Promoting and Managing Projects without Failures, INTERNET Symposium '91, Zurich, Switzerland
33. Vanegas, J., (1991) "*Data Acquisition and Retrieval for Project Management*," Proceedings of the International Symposium on Promoting and Managing Projects without Failures, INTERNET Symposium '91, Zurich, Switzerland

Papers in Technical Conference Proceedings – Education Domain (As Author and Co–author)

1. Vanegas, J., Pearce, A., and Bosch, S. (2002) "*Built environment sustainability: An integrated approach to education, research, and outreach*," Proceedings of the Conference on Engineering Education in Sustainable Development, Delft University of Technology, Delft, The Netherlands, October 24 – 25, 2002, pp. 385-395 (paper in conference CD ROM)
2. Vanegas, J., Pearce, A., and Bosch, S. (2002) "*An engineering undergraduate/graduate course on sustainable design and construction*," Proceedings of the Conference on Engineering Education in Sustainable Development, Delft University of Technology, Delft, The Netherlands, October 24 – 25, 2002, pp. 396-407 (paper in conference CD ROM)
3. McElvaney, L., and Vanegas, J. (1998) "*Georgia Tech Report Part I– The GE Fund Project*," Final Report on the 1997 International Conference on Engineering Education and Training for Sustainable Development – Towards Improved Performance, the Ecole Nationale des Ponts et Chaussées, Paris, France
4. Chameau, J.L., Foley, C., McElvaney, L., and Vanegas, J. (1998) "*Georgia Tech Report Part II– The Institutional Response*," Final Report on the 1997 International Conference on Engineering Education and Training for Sustainable Development – Towards Improved Performance, the Ecole Nationale des Ponts et Chaussées, Paris, France
5. Hmelo, C., Bras, B., Mulholland, J., Realff, M., Vanegas, J., and Shikano, T. (1995) "*A Problem–Based Curriculum in Sustainable Technology*," Proceedings of the Frontiers in Education 1995 Conference, American Society for Engineering Education and IEEE, Atlanta, Georgia
6. Rix, G., Baker, N., Jacobs, L., Vanegas, J., and Zureick, A. (1995) "*Infrastructure Assessment, Rehabilitation and Reconstruction*," Proceedings of the Frontiers in Education 1995 Conference, American Society for Engineering Education and IEEE, Atlanta, Georgia
7. Vanegas, J. (1995) "*Engineering Education for Sustainable Development and Technology*," Proceedings of the Fourth World Conference on Engineering Education, International Liaison Group on Engineering Education and the Technology–Based Engineering Education Consortium, Minneapolis–St. Paul, Minnesota
8. Hmelo, C., Shikano, T., Realff, M., Bras, B., Mulholland, J., and Vanegas, J. (1995) "*A Problem–Based Course in Sustainable Technology*," Proceedings of the Frontiers in Education 1995 Conference, American Society for Engineering Education and IEEE, Atlanta, Georgia
9. Hmelo, C., Vanegas, J., Realff, M., Bras, B., Mulholland, J., Shikano, T., and Guzdial, M. (1995) "*Technology Support for Collaborative Learning in a Problem–Based Curriculum for Sustainable Technology*," Proceedings of the First International Conference on Computer Supported Collaborative Learning Environments, Bloomington, Indiana
10. Guzdial, M., Vanegas, J., Mistree, F., Rosen, D., Allen, J., Turns, J., and Carlson, D. (1995) "*Supporting Collaboration and Reflection on Problem–Solving in a Project–Based Classroom*," Proceedings of the ASCE Second Congress on Computing in Civil Engineering, American Society of Civil Engineers, Atlanta, Georgia
11. Vanegas, J., and Guzdial, M. (1995) "*A Collaborative and Multimedia Interactive Learning Environment for Engineering Education in Sustainable Development and Technology*," Proceedings of the ASCE Second Congress on Computing in Civil Engineering, American Society of Civil Engineers, Atlanta, Georgia
12. Rappin, N., Guzdial, M., and Vanegas, J. (1994). "*Supporting Distinct Roles in a Multimedia Database*," Proceedings of the Third Annual Conference on Multimedia in Education & Industry, Association for Applied Interactive Multimedia, Charleston, South Carolina
13. DuBose, J., Frost, J., Chameau, J., and Vanegas, J. (1994) "*Sustainable Development and Technology*," Proceedings of the International Conference on Environmental Education, Association of Environmental Engineers of South–East Asia and the Pacific, Christchurch, New Zealand
14. Vanegas, J., Reyna, S., Senior–Brown, B., and Halpin, D. (1993) "*Use of Simulation in Construction Engineering Education and Industry*," Proceedings of the XIX Conferencia Latinoamericana de Informatica y 22as. Jornadas Argentinas de Informatica e Investigación Operativa, Buenos Aires, Argentina

15. Vanegas, J. (1993) “*An Integrated Computer-Based Total Design Environment for Civil Engineering Education,*” Proceedings of the ASCE Fifth International Conference on Computing in Civil and Building Engineering, American Society of Civil Engineers, Anaheim, California
16. Vanegas, J., and McCullouch, B. (1992) “*A Senior Design Capstone Course for Construction Engineering and Management: Bringing the Real World into the Classroom,*” Proceedings of the ASEE 1992 Annual Conference, American Society for Engineering Education, Toledo, Ohio
17. Vanegas, J., (1992) “*Real-Time Computer-Aided Civil Engineering Instruction: An Electronic Syllabus,*” Proceedings of the ASCE 8th Computing in Civil Engineering Conference (8CCCE), American Society of Civil Engineers, Dallas, Texas
18. Vanegas, J., (1991) “*Use of Digital Image Processing and Simulation Technologies for Teaching Design/Construction Integration,*” Proceedings of the ASEE 1991 Annual Conference, American Society for Engineering Education, New Orleans, Louisiana
19. Vanegas, J., AbouRizk, S., González-Quevedo, A., and Halpin, D. (1991) “*Integration of Process Simulation Software in Construction Engineering Graduate Courses,*” Proceedings of the ASEE 1991 Annual Conference, American Society for Engineering Education, New Orleans, Louisiana
20. Vanegas, J., (1991) “*Integration of Design into the Construction Engineering and Management Curriculum: A Senior Design Capstone Course,*” Proceedings of the ASEE 1991 Annual Conference, American Society for Engineering Education, New Orleans, Louisiana
21. Nelson, D., and Vanegas, J. (1990) “*Integration of Video/Computer Technology in Civil Engineering Education,*” Proceedings of the ASCE 1990 National Forum on Education and Continuing Professional Development, American Society of Civil Engineers, Las Vegas, Nevada

Technical Reports – Technical Domain

1. Vanegas, J., Walrath, L., Harding, N., and Shepherd, W. (2002) “*State-of-the-Art of Sustainability in the Construction Industry,*” A review and synthesis for the Subcommittee on Sustainable Construction of the National Center for Construction Education and Research (NCCER), Summer 2002
2. Vanegas, J. (2000) “*Integrated Design/Construction Research Program for Infrastructure Rehabilitation,*” Project Close-out Report to the National Science Foundation (NSF) National Young Investigator Award (NYI), NSF Grant No. MSS 9396314, via FastLane, 47 pp.
3. Soares, H. L., Gregory, R., Nease, A., and Vanegas, J., (1999) “*Handbook of Technology Transfer Between USA and Brazil for Advanced Equipment in Construction,*” Technical Report for AFRL/MLQC (Airbase Technology Branch), Tyndall Air Force Base, Florida
4. Bullock, W., et al. (1998). “*Development of Wall Cladding Product Systems,*” Technical Report produced for STO Corporation, Collaborative Product Development Laboratory. J. Vanegas, Member of the Georgia Tech Collaborating Faculty Team.
5. Nguyen, T., East, W., and Vanegas, J., (1998) “*The Use of Organizational Knowledge within Public Works Engineering Construction and Maintenance Agencies,*” USACERL Special report 98/64, U.S. Army Corps of Engineers Construction Research Laboratories, Champaign, Illinois, 57 pp.
6. Vanegas, J., Hastak, M., Pearce, A., and Maldonado, F. (1998) “*A Framework and Practices for Cost-Effective Engineering in Capital Projects in the A/E/C Industry*” Source Document RR112-11, Construction Industry Institute, The University of Texas at Austin, Austin, Texas, 202 pp.
7. Frost, J., and Vanegas, J., (1994), “*Workshop on Environmental Life Cycle Cost Estimating for Weapons Systems,*” Final Technical Report submitted to Delta Research Corporation, Georgia Institute of Technology, Atlanta, Georgia, 30 pp.
8. Vanegas, J. (1993), “*Implementing Computer Technologies in Project Field Environments,*” Final Technical Report submitted to BECHTEL-Engineering and Construction Technologies, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, Indiana, February, 36 pp.
9. Vanegas, J. (1991) “*Use of Real-Time Instrumentation and Sensing Technologies in Construction,*” Final Technical Report submitted to BECHTEL-Engineering and Construction Technologies, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, Indiana, 51 pp.

10. Vanegas, J. (1991) “*Uniform System for Accident Reporting*,” Final Technical Report submitted to the Indiana Department of Transportation–Division of Traffic Safety, Division of Construction Engineering and Management, Highway Extension and Research Project for Indiana Counties and Cities (HERPICC), Purdue University, West Lafayette, Indiana, 53 pp.
11. Skibniewski, M., Russell, J., and Vanegas, J. (1989) “*CREMS: Construction Robotic Equipment Management System*,” Final Technical Report submitted to the Ohbayashi Corporation, Division of Construction Engineering and Management, School of Civil Engineering, Purdue University, West Lafayette, Indiana, 161 pp.
12. Vanegas, J. (1987) “*A Model for Design/Construction Integration During the Initial Phases of Design for Building Construction Projects*,” doctoral thesis presented in partial fulfillment of the requirements for the Degree of Doctor of Philosophy to the Department of Civil Engineering, Stanford University, Stanford, California, 254 pp.
13. Tatum, C., Vanegas, J., and Williams, M. (1987) “*Constructability Improvement Using Prefabrication, Preassembly, and Modularization*,” Source Document No. 25, Construction Industry Institute, The University of Texas at Austin, 354 pp.
14. Tatum, C., Vanegas, J., and Williams, M. (1986) “*Constructability Improvement During Conceptual Planning*,” Source Document No. 4, Construction Industry Institute, The University of Texas at Austin, 196 pp.

Technical Reports – Education Domain

1. Pearce, A., and Vanegas, J. (2001). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to Air Force Space Command, Peterson AFB, Colorado Springs, Colorado
2. Pearce, A., Fischer, C., and Vanegas, J. (2001). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to Robins Air Force Base Environmental Management and Pollution Prevention Program, Warner Robins, Georgia
3. Vanegas, J. and Pearce, A. (2001). *Quench & Temper Facility Project Alignment and Partnering Development Final Report*. Summary analysis report to Lorain Tubular Company, LLC, Lorain, Ohio
4. Pearce, A., Fischer, C., and Vanegas, J. (2001). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to Dobbins Air Reserve Base, Marietta, Georgia
5. Pearce, A., Fischer, C., and Vanegas, J. (2001). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to Homestead Air Reserve Station, Homestead, Florida
6. Pearce, A., Fischer, C., Jones, S., and Vanegas, J. (2001). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to Centers for Disease Control and GA Pollution Prevention Assistance Division, Atlanta, Georgia
7. Vanegas, J. and Pearce, A. (2001). *No. 2 and No. 3 Pushing Emissions Control Project Alignment and Partnering Development Final Report*. Summary analysis report to U.S. Steel Gary Works, Gary, Indiana
8. Vanegas, J. and Pearce, A. (2001). *84" Continuous Pickle Line Upgrade Project Alignment and Partnering Development Final Report*. Summary analysis report to U.S. Steel Mon Valley Works, Irvin Plant, Dravosburg, Pennsylvania
9. Vanegas, J.A. and Pearce, A.R. (2001). *Boiler House Upgrade Phase II Project Alignment and Partnering Maintenance Final Report*. Summary analysis report to U.S. Steel Gary Works, Gary, Indiana
10. Pearce, A., Fischer, C., Jones, S., and Vanegas, J. (2000). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to Centers for Disease Control and GA Pollution Prevention Assistance Division, Atlanta, Georgia
11. Pearce, A., Fischer, C., Jones, S., and Vanegas, J. (2000). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to Robins Air Force Base Civil Engineering Command, Robins AFB, Georgia
12. Pearce, A., Fischer, C., Jones, S., and Vanegas, J. (2000). *Introduction to Sustainable Facilities & Infrastructure: Final Training Report*. Summary analysis report to U.S. Air Force Reserve Command/CEV, Warner Robins AFB, Georgia
13. Pearce, A., with Vanegas, J. and Browning, W. (2000). *Serenbe: A Project Planning Charrette*. Summary analysis report to Serenbe Development Corporation, Palmetto, Georgia
14. Vanegas, J. and Pearce, A. (2000). *No. 1 Caster EMC Replacement Project Alignment and Partnering Development Final Report*. Summary analysis report to U.S. Steel, Gary Works, Gary, Indiana
15. Vanegas, J. and Pearce, A. (2000). *QBOP Propane–Tuyere Cooling Project Alignment and Partnering Development Final Report*. Summary analysis report to U.S. Steel, Gary Works, Gary, Indiana

16. Fitzpatrick, L., and Vanegas, J., editors (1999) *Educating Engineers for the 21st Century*. Final Technical Report to the GE Fund, College of Engineering, Georgia Institute of Technology, Atlanta, Georgia
17. Vanegas, J., and Mulva, S. (1999). *BH Upgrade Project Alignment and Partnering Maintenance Final Report*. Summary analysis report to U.S. Steel, Gary Works, Gary, Indiana
18. Vanegas, J. and Pearce, A. (1999). *20/20 Projects (Sub-lance, Oxygen Lance, Auxiliaries, and Charge Weigh) Project Alignment and Partnering Development Final Report*. Summary analysis report to U.S. Steel, Gary Works, Gary, Indiana
19. Vanegas, J. and Pearce, A. (1999). *New Hydraulic Coilers Phase II Project Alignment and Partnering Maintenance Final Report*. Summary analysis report to U.S. Steel, Gary Works, Gary, Indiana
20. Vanegas, J., and Maldonado, F. (1998). *New Hydraulic Coilers Phase I Project Alignment and Partnering Maintenance Final Report*. Summary analysis report to U.S. Steel, Gary Works, Gary, Indiana

Other

1. Vanegas, J. (2000) “*Sustainability and the Structural Engineer*,” editorial for Structural Engineering International, Journal of the International Association of Bridge and Structural Engineering (IABSE), Volume 10, Number 3, August Issue
2. Vanegas, J. (1995) “*Trends in Engineering Education for the 21st Century*,” article for the Military Engineer Magazine, Society of American Military Engineers, Volume 87, Number 573, October–November Issue
3. Vanegas, J., and Baker, N. (1994) “*Multimedia in Civil Engineering*,” Civil Engineering, a publication of the ASCE, May Issue
4. Vanegas, J. (1994) “*Georgia Tech and SHPE: A Partnership for Excellence in Engineering Education for Hispanics for the 21st Century*,” article for the Hispanic Engineer Magazine, Mellado Communications, Monterey Park, California, April Issue
5. Teicholz, P., and Vanegas, J. (1988) “*The Center for Integrated Facility Engineering (CIFE)*,” The Construction Specifier, a publication of the Construction Specifications Institute, June Issue

E. Presentations

Invited Keynote Lecturer, No Paper Published

1. “*Engineering Sustainable Systems*,” Keynote Lecture at the VI Semana de la Ingeniería, Facultad de Ingeniería de la Universidad Autónoma Regional de Yucatán, Mérida, Mexico, May, 2002
2. Vanegas, J. (2000) “*Sustainability in the Built Environment: A Greenprint for Action*,” The Howard S. Wright Lecture in the College of Architecture and Urban Planning, University of Washington, Seattle, Washington; March 2000
3. Vanegas, J. (2000) “*Globalization and Sustainable Development: A Greenprint for Action*,” Keynote Lecture at the V Mexican, Central American and the Caribbean Congress of Deans of Engineering and Industry Leaders & the XII International Congress of Engineering, UNESCO, Puebla, Mexico; January 2000
4. Vanegas, J. (1999) “*Sustainability and Civil Engineering: From Concept to Action*,” Keynote Lecture at the International Association for Bridge and Structural Engineering Symposium: Structures for the Future – The Search for Quality, Rio de Janeiro, Brazil, August 1999

Invited Lecturer/Speaker, No Paper Published – Technical Domain

1. “*Delivery of Integrated Solutions for School Rehabilitation/Expansion Programs*,” Panelist, Annual Meeting of the Council on Great City Schools, Ft. Lauderdale, FL, October, 2002
2. “*Management of Technical Issues and Productivity in Construction Projects*,” Congreso de Ingeniería de Construcción, sponsored by the Colegio Federado de Ingenieros y Arquitectos, San José, Costa Rica, September, 2002
3. “*New Trends in Managing Construction Projects*,” Congreso de Ingeniería de Construcción, sponsored by the Colegio Federado de Ingenieros y Arquitectos, San José, Costa Rica, September, 2002
4. “*Sustainable Civil Infrastructure Systems*,” Presentation made on behalf of Dr. Annie Pearce, Congreso de Ingeniería de Construcción, sponsored by the Colegio Federado de Ingenieros y Arquitectos, San José, Costa Rica, September, 2002
5. “*Sustainable Construction*,” International Congress: Reunión del Concreto 2002, sponsored by ASOCRETO, Cartagena de Indias, Colombia, September, 2002

6. *“Lean Construction,”* International Congress: Reunión del Concreto 2002, sponsored by ASOCRETO, Cartagena de Indias, Colombia, September, 2002
7. *“Prefabrication, Preassembly, Modularization, and Off-site Construction,”* Breakout Session of Research Team 171, Construction Industry Institute Annual Conference, Keystone, Colorado, August, 2002
8. *“Constructability – Best Practice,”* Special Monographic Course sponsored by the Grupo de Investigación y Desarrollo de Actuaciones Industriales – GIDAI, Departamento de Transportes y Tecnología de Proyectos y Procesos, Universidad de Cantabria, Santander, Cantabria, Spain, May, 2002
9. *“Sustainable Construction,”* Special Lecture sponsored by the Grupo de Investigación y Desarrollo de Actuaciones Industriales – GIDAI, Departamento de Transportes y Tecnología de Proyectos y Procesos, Universidad de Cantabria, Santander, Cantabria, Spain, May, 2002
10. *“Enabling Sustainability in the A/E/C Industry--A National Perspective on What Works & Why,”* Special Program on Innovations in Green Design & Construction, Northwest Construction Consumer Council, Seattle, Washington, April 2002
11. *“Challenges of Planning and Estimating Sustainable Projects,”* March Program of the American Association of Cost Engineers – Atlanta Chapter, Atlanta, Georgia, March 2002
12. *“Built Environment Sustainability: Context, Inhibitors, and Enablers,”* Thompson, Ventulett, Stainback & Associates, Atlanta, Georgia, December 2001
13. *“Built Environment Sustainability: Context, Inhibitors, and Enablers,”* NSF Earth Systems Engineering Workshop, University of Colorado at Boulder, Boulder, Colorado, October 2001
14. *“The Context, Inhibitors, and Enablers for Sustainable Technologies,”* National Accomplishments in Sustainability Session, ASCE 2001 Civil Engineering Conference and Exhibition, Houston, Texas October 2001
15. *“Conceptual Framework for Implementing Sustainability in Army Installations,”* 6th Annual Joint Services Pollution Prevention and Hazardous Waste Management Conference, San Antonio, August 2001
16. *“Built Environment Sustainability: Challenges, Inhibitors, and Enablers,”* ENFORM, Atlanta Chamber of Commerce, Atlanta, Georgia, August 2001
17. *“What Labor Shortage? Increase Productivity by Reducing Cycle Time,”* Leader to Leader Forum of the Pacific Coast Builders Conference, San Francisco, California, July 2001
18. *“Sustainability in the Built Environment: A Greenprint for Action,”* Pacific Coast Builders Conference, San Francisco, California July 2001
19. *“Sustainability in the Built Environment: A Greenprint for Action”* BSW International, Tulsa, Oklahoma, April 2001
20. *“The Future of Civil Engineering: Challenges and Opportunities for Construction, Education, and Practice,”* Second International Congress of Civil Engineering, Universidad Iberoamericana, México City, México, March 2001
21. *“An Introduction to the LEED Green Building Rating System,”* Instituto de Desarrollo Urbano (IDU), Bogotá, Colombia, December 2000.
22. *“Wired Development: Integrating Technology and Real Estate,”* Urban Land Institute Fall Conference, Chicago, Illinois, November 2000
23. *“Safety Issues in Latin America,”* CII Latin American Forum, Houston, Texas, October 2000
24. *“An Institutional Framework for Research Initiatives, Programs, and Project (II): Managing Individual Investigators and Research Teams,”* lecture presented to the General Faculty of the Universidad Autónoma de Yucatán (UADY), Mérida, México, June 2000.
25. *“An Institutional Framework for Research Initiatives, Programs, and Project (I): Managing Change,”* lecture presented to the Faculty of the Universidad Autónoma de Yucatán (UADY), Mérida, México, June 2000.
26. *“Product Diversification through Process Standardization,”* 2nd National Congress of the Asociación Nacional de Fabricantes de Ladrillo y Derivados de la Arcilla (ANFALIT), Medellín, Colombia, March 2000

27. *“Achieving Life Cycle Waste Reduction in Army Installations through the Application of Lean Principles and Strategies,”* Sixth Annual Legacy Forum on Military Toxic Cleanup and the Environment – Sustainability in the Southeast: Partnering Community, Industry, and Defense For Environmental Protection, Atlanta, Georgia, December 1999
28. *“A Framework for Development and Implementation of Policies for Sustainable Army Installations,”* Fourth Annual Federal Planning Workshop – Federal Planning: Approaching the Millennium, American Planning Association, Seattle, Washington, April 1999
29. *“Technology Transfer”* Fourth International Civil Engineering Symposium, Instituto Tecnológico de Estudios Superiores del Occidente (ITESO), Tlaquepaque, Jalisco, México, March 1999
30. *“The Civil Engineer as Leader for Sustainable Development”* Sixth International Civil Engineering Symposium, Instituto Tecnológico de Estudios Superiores del Occidente (ITESO), Tlaquepaque, Jalisco, México, March 1999
31. *“The Civil Engineer as Leader for Sustainable Development”* X Congreso Nacional de Colegios de Ingenieros Civiles, Federación de Colegios de Ingenieros Civiles de la República Mexicana, A.C., Mexicali, Mexico, November 1998
32. *“Context, Challenges, and Opportunities of Sustainable Development and Technologies,”* 11th International Congress of Mechanical Engineering, Instituto Tecnológico y de Estudios Superiores de Monterrey (ITESM), Monterrey, Nuevo León, Mexico, October 1998
33. *“Effective and Efficient Construction Project Management in Crisis Times: Advanced Strategies and Tools,”* 1998 Asamblea Nacional de la Cámara Colombiana de la Industria de la Construcción (CAMACOL), Cali, Colombia, October 1998
34. *“Standardization of Industrial Processes for Construction Materials and Products,”* 1998 Asamblea Nacional de la Cámara Colombiana de la Industria de la Construcción (CAMACOL), Cali, Colombia, October 1998
35. *“A Virtual Consultant for Technological Innovation in Construction”* TecnoMex ‘98 International Symposium, sponsored by the Fundación Nacional de la Industria de la Construcción, Ciudad de México, México, February 1998.
36. *“Technological Development in the Construction Industry”* Fifth National Civil Engineering Congress, Universidad de la Américas, Cholula, Puebla, México, January 1998.
37. *“A New Paradigm for A/E/C Practice: Trends, Challenges, and Opportunities”* Lord, Aeck & Sargent, Inc., Architecture, 1998 State-of-the-Firm Meeting, Atlanta, Georgia, January 1998
38. *“A Framework for Integration for the A/E/C Industry,”* presentation to the U.S. Department of Transportation, Washington D.C., December 1997
39. *“Value Engineering, Value Added, and Earned Value,”* lecture presented at the Bufete Industrial 1997 Annual Executive Retreat, México City, México, December 1997
40. *“A New Paradigm for Assessing the Performance of Engineering and Construction Companies,”* lecture presented at the Bufete Industrial 1997 Annual Executive Retreat, México City, México, December 1997
41. *“Towards the Creation of an Integrated Civil Infrastructure Systems Community,”* lecture presented at the Fifth Infrastructure Lecture Series of the Civil Infrastructure Research Center (CIRC) of the University of Puerto Rico – Mayagüez, Mayagüez, Puerto Rico, November 1997
42. *“Real Estate/Construction – The Future,”* lecture presented at the 1997 Management Seminar of The Winter Construction Company, Atlanta, Georgia, October 1997
43. *“Advanced Technologies for Construction of Infrastructure,”* lecture presented at the 60th Anniversary of the College of Engineering, V Civil Engineering Week, Universidad Autónoma de Yucatán (UADY), Mérida, México, July 1997.
44. *“Challenges and Opportunities for Civil Engineering in the 21st Century,”* lecture presented at the 60th Anniversary of the College of Engineering, V Civil Engineering Week, Universidad Autónoma de Yucatán (UADY), Mérida, México, July 1997.
45. *“Constructability – A Conceptual Framework,”* lecture presented at the Greater New Orleans Business Roundtable May Workshop, New Orleans, Louisiana, May 1997
46. *“Constructability – A Tool for Management and Control of Construction Projects,”* lecture presented at the Second National Civil Engineering Symposium, Instituto Tecnológico de Estudios Superiores del Occidente (ITESO), Tlaquepaque, Jalisco, México, April 1997

47. “*Challenges and Opportunities for Civil Engineering in the 21st Century*,” lecture presented at the Second National Congress of Civil Engineering Students, Universidad Iberoamericana, México City, México, April 1997
48. “*A Conceptual Framework for Integration in Construction Projects*,” lecture presented at the Bufete Industrial 1996 Annual Executive Retreat, México City, México, December 1996
49. “*A Framework for Global Cooperation for Sustainable Development*” lecture presented at the International Seminar on Communications and Sustainable Development, sponsored by the Centro Regional de la Ingeniería para el Desarrollo Sostenible (CRIDS) and the World Federation of Engineering Organizations (WFEO), Montevideo, Uruguay, November 1996.
50. “*New Technologies and Best Practices for Housing Developments*,” special workshop prepared for Grupo GEO, México City, México, November 1996
51. “*Models in Global Cooperation for Sustainable Development*” lecture presented at the XXIV Panamerican Convention of Engineers, and the II Panamerican Congress on Sustainable Development, sponsored by the Panamerican Federation of Engineering Organizations, San José, Costa Rica, August 1996.
52. “*2% Engineering Costs – Can It Work for You?*” breakout presentation of Research Team 112 at the 1996 Annual Conference of the Construction Industry Institute, Toronto, Canada, August 1996.
53. “*New Technologies for Construction*” lecture presented at the Tecno Mex ‘96 International Symposium, sponsored by the Fundación Nacional de la Industria de la Construcción, Ciudad de México, México June 1996.
54. “*Advanced Techniques for Effective Construction Management*,” lecture presented at the Fourth Infrastructure Lecture Series of the Civil Infrastructure Research Center (CIRC) of the University of Puerto Rico – Mayagüez, Mayagüez, Puerto Rico, April 1996
55. “*Future Building – Construction Beyond the 1990’s*,” lecture presented at the 1995 Superintendent’s Conference of The Holder Corporation, Atlanta, Georgia, October 1995
56. “*Challenges and Opportunities for the Construction Industry in the 21st. Century*,” lecture presented at the 1995 Management Seminar of The Winter Construction Company, Atlanta, Georgia, October 1995
57. “*Challenges and Opportunities for the Construction Industry in the 21st. Century*,” special seminar presented to a Korean Delegation of construction project managers, sponsored by the Korean Institute of Project Management and Technology, Atlanta, Georgia, October 1995
58. “*Challenges and Opportunities for the Construction Industry in the 21st. Century*,” lecture presented at the III Construction Fair and Exposition, sponsored by the Cámara Colombiana de la Industria de la Construcción (CAMACOL)–Atlántico, and the Servicio Nacional de Aprendizaje (SENA), Barranquilla, Colombia, August 1995
59. “*Sustainable Development*,” presentation to the Environment Committee of the Atlanta Chapter of the American Institute of Architects (AIA), Atlanta, Georgia, April 1995
60. “*Caring for Mother Earth: Sustainable Living*,” Educational Session within the Science for the City Environmental Literacy Conference: From Knowledge to Action, Center for Disease Control, Atlanta, Georgia, February 1995
61. “*A Tutorial on Multimedia Theory and Applications*,” lecture presented in Technical Session 88A of the Transportation Research Board 74th Annual Meeting, Washington D.C., January 1995
62. “*A Framework for Analyzing Environmental Life Cycle Costs*,” lecture presented at a EPA Pollution Prevention/Waste Minimization Conference, Atlanta, Georgia, December 1994
63. “*Overview of Sustainable Development*,” lecture presented at the 1994 Summer Seminar of the Georgia Section of the Institute of Transportation Engineers, in the session Planning for the Next Generation: Sustainable Development and the Environment, Savannah, Georgia, July 1994
64. “*Multimedia Strategies for Engineering and Construction: A Tutorial*,” (Co–Speaker) special tutorial session 10W2 of the ASCE First Congress on Computing in Civil Engineering, Washington, D.C., June 1994
65. “*Using Constructability Lessons Learned for Infrastructure Rehabilitation*,” lecture presented at the Third Infrastructure Lecture Series of the Civil Infrastructure Research Center (CIRC) of the University of Puerto Rico – Mayagüez, Mayagüez, Puerto Rico, April 1994

66. “*Application of Optical Imaging for Project Management*,” presentation to the the Technology Subcommittee of the Edison Electric Institute (EEI) at the Fall Construction Committee meeting, San Francisco, California, September 1993
67. “*An Integrated Design/Construction Research Program for Infrastructure Rehabilitation*,” presentation to the Technology Subcommittee of the Edison Electric Institute (EEI) at the Spring Construction Committee meeting, Indianapolis, Indiana, May 1993
68. “*An Integrated Design/Construction Research Program for Infrastructure Rehabilitation*,” lecture presented at the Second Infrastructure Lecture Series of the Civil Infrastructure Research Center (CIRC) of the University of Puerto Rico – Mayagüez, Mayagüez, Puerto Rico, April 1993
69. “*A Model for a Collaborative Research Partnership among Industry, Government and Academia for Infrastructure Rehabilitation*,” lecture presented at the Colegio de Ingenieros and the AGC of Puerto Rico, San Juan, Puerto Rico, April 1993
70. “*Multimedia Strategies for Engineering and Construction: A Tutorial*,” lecture presented in Technical Session 106 of the Transportation Research Board 72nd Annual Meeting, Washington D.C., January 1993

Invited Lecturer/Speaker, No Paper Published – Education Domain

1. “*Teaching Sustainability at Georgia Tech*,” 2002 ASCE Civil Engineering Conference and Exhibition, Washington DC, November, 2002
2. “*An Integrated Framework for Teaching, Research, and Outreach*,” lecture presented to the Faculty of the Department of Civil Engineering, Universidad de los Andes, Bogotá, Colombia, June 2000.
3. “*A Framework for Integrating Teaching, Research, and Outreach: Towards Recuperating Academic Relevance*,” lecture presented to the Faculty of the College of Engineering, Universidad Autónoma de Yucatán (UADY), Mérida, México, May 2000.
4. “*Integrating Sustainable Development into the Civil Engineering Curriculum*,” presentation in the Sustainable Development Track – Session SD7, ASCE 1997 Annual Convention and Exposition, Minneapolis, Minnesota, October 1997
5. “*Georgia Tech Report on Sustainability Initiatives*,” plenary presentation at the International Conference on Engineering Education and Training for Sustainable Development – Towards Improved Performance, Paris, France, September 1997 (based on contributions from Jean-Lou Chameau, Jorge Vanegas, Carol Foley, and Leigh McElvaney)
6. “*The Changes in Undergraduate Engineering Education: Towards a New Paradigm for the New Millennium...*,” lecture presented at the Seminar on Covering Math and Science Education of the Hechinger Institute on Education and the Media, Teachers College – Columbia University, New York City, New York, September 1997
7. “*Integral Preparation of Civil Engineers within a Global Conceptual Framework*,” lecture presented at the 60th Anniversary of the College of Engineering, V Civil Engineering Week, Universidad Autónoma de Yucatán (UADY), Mérida, México, July 1997.
8. “*Construction Engineering and Management Education and Research Programs at Georgia Tech*,” presentation to the Professional Construction Estimators Association (PCEA), Atlanta, Georgia, April 1995
9. “*Trends in Engineering Education for the 21st Century*,” lecture presented in Technical Session 1 of the South Atlantic Regional Conference of the Society of American Military Engineers, Callaway Gardens, Georgia, March 1995
10. “*Educational Module on Implementing Constructability in the Utility Industry*,” presentation to the Electric Power Research Institute (EPRI) 3rd International Conference on Fossil Plant Construction, Tampa, Florida, October 1993
11. “*Educational Module on Implementing Constructability in the Utility Industry*,” presentation to the Technology Subcommittee of the Edison Electric Institute (EEI) at the Fall Construction Committee meeting, San Francisco, California, September 1993
12. “*Educational Module on Implementing Constructability*,” presentation to the Construction Industry Institute Implementation Workshop, Austin, Texas, June 1993
13. “*Use of Multimedia in Construction Engineering and Management Education*,” presentation to the Construction Research Council at the ASCE 1992 Annual Convention, New York City, New York, September 1993

14. “*Educational Module on Implementing Constructability*”, presentation to The Business Roundtable 41st National Construction Conference, Tampa, Florida, November 1992
15. “*A Pilot Course on Design/Construction Integration*,” 1989 Annual Conference of the American Society for Engineering Education, University of Nebraska, Lincoln, Nebraska, June 1989

Other Special Activities

1. *Army Installation Sustainability: A Project Definition Process for Sustainable Facilities and Civil Infrastructure Systems*, Poster Session, 28th Environmental and Energy Symposium and Exhibition – Integrating the Dual Goals of Environment and Energy for Sustainable Federal Operations, Charleston, South Carolina, March 2002
2. *An Integrated Design/Construction Research Program for Infrastructure Rehabilitation*, Poster Session, Industry/University Innovation Workshop, sponsored by the National Science Foundation (NSF) and the Civil Engineering Research Foundation (CERF), Washington D.C., October 1997
3. *A Curriculum for Infrastructure Assessment, Rehabilitation, and Reconstruction*, Poster Session, ASEE 1995 Annual Conference, American Society for Engineering Education, Anaheim, California
4. *Curriculum for an Integrated Course Sequence in Sustainable Development and Technology*, National Science Foundation Project Showcase, ASEE 1995 Annual Conference, American Society for Engineering Education, Anaheim, California
5. *A Curriculum for Infrastructure Assessment, Rehabilitation, and Reconstruction*, Poster Session, ASCE 1995 Education Conference, American Society of Civil Engineers, Denver, California
6. Invited participant to the 1994 Civil Engineering Education Workshop on “*Re-Engineering Civil Engineering Education: Goals for the 21st Century*,” sponsored by the 1995 ASCE Education Conference Steering Committee and the 1994 CE Education Workshop Committee, The University of Texas at Arlington, September 1994

V. Doctoral Advising Activities

Ph.D. Students Graduated at Georgia Tech

Student and Dissertation Topic/Area	Role	Status	Degree and Date
Stephen Mulva: <i>Working Title: A Process Approach to Engineering & Construction Enterprise Management: Agile Resource Information and Execution System</i>	Principal Advisor	In Progress; Passed Qualification Examination	Ph.D. (CE); Target Graduation Date Fall 2003
John Mogge: <i>Tentative Topic Area: Economics of Sustainability in Construction Projects</i>	Advisory Committee Member since Fall 1999	In Progress; Passed Qualification Examination	Ph.D. (CE); Target Graduation Date Fall 2003
José Loría: <i>Major Issues Impacting Affordable Housing Developments in Mexico</i>	Principal Advisor	Graduated	Ph.D. (CE); Fall 2002
Francisco Maldonado–Fortunet: <i>Sustainable Development Criteria for the Evaluation of Highway Projects</i>	Principal Advisor	Graduated	Ph.D. (CE); Summer 2002
Gena Abraham: <i>Identification of Critical Success Factors for Construction Organizations in the A/E/C Industry</i>	Advisory Committee Member	Graduated	Ph.D. (CE); Spring 2002
Tulio Sulbarán: <i>Assessing the Impact of Virtual Reality in Engineering Education</i>	Advisory Committee Member	Graduated	Ph.D. (CE); Spring 2002
Anna Jones–Crabtree: <i>Decision-making Variances: Creating Deferred Maintenance Solutions Using the Paradigm of Sustainable Design</i>	Principal Advisor	Graduated	Ph.D. (CEE); Fall 2001
George McMahon: <i>The Marginalization of Federal Hydropower</i>	Advisory Committee Member	Graduated	Ph.D. (CEE); Summer 2001

Kyoochul Shin: <i>Identification of Critical Dispute Characteristics (CDC's) during Construction Project Operations</i>	Principal Co-Advisor (with Dr. Keith Molenaar, University of Colorado - Boulder)	Graduated	Ph.D. (CEE); Summer 2000
Annie Pearce: <i>Sustainability and the Built Environment: A Metric and Process for Prioritizing Improvement Options</i>	Principal Co-Advisor (with Dr. Rita Gregory)	Graduated	Ph.D. (CEE); Summer 1999
Robin Goodman: <i>Taxonomy of Knowledge Requirements for Executives of General Contracting and Construction Management Enterprises</i>	Advisory Committee Member	Graduated	Ph.D. (CEE); Summer 1998
Jacob Kovel: <i>Planning Construction for Disaster Response</i>	Advisory Committee Member	Graduated	Ph.D. (CEE); Fall 1996
Moatez Bakheet: <i>Contractors' Risk Assessment System</i>	Advisory Committee Member	Graduated	Ph.D. (CEE); Fall 1995
Khaled Saad Al-Shaleh: <i>Optimum Design of Straight Steel Box Girder Bridges</i>	Reading and Examining Committee Member	Graduated	Ph.D. (CEE); Spring 1994
Mahmoud Sayed Ahmed: <i>Quality Function Deployment in the Construction Industry</i>	Reading and Examining Committee Member	Graduated	Ph.D. (CEE); Fall 1993

Ph.D. Students Currently Advised at Georgia Tech

Student and Dissertation Topic/Area	Role	Status	Degree and Date
Stephen Mulva: <i>Working Title: Agile Resource Information and Execution System</i>	Principal Advisor since Fall 1999	In Progress; Passed Qualification Examination	Ph.D. (CEE); Target Graduation Date Summer 2002
John Mogge: <i>Tentative Topic Area: Economics of Sustainability in Construction Projects</i>	Advisory Committee Member since Fall 1999	In Progress; Qualification Examination Passed Qualification Examination	Ph.D. (CEE); Target Graduation Date Fall 2002

Ph.D. Students Graduated at Purdue University

Student and Dissertation Topic/Area	Role	Status	Degree and Date
Makarand Hastak: <i>Decision Support System for Project Cost Control Strategy and Planning</i>	Advisory Committee Member	Graduated	Ph.D. (CE); May 1994
Eric Showalter: <i>Optimization of Technology Selection for Soil Remediation</i>	Advisory Committee Member	Graduated	Ph.D. (CE); May 1994
Robert Patty: <i>A Construction Engineering Platform for the Integration of Constructability Concepts and Lessons Learned at the Point of Design</i>	Advisory Committee Member	Graduated	Ph.D. (CE); December 1993
Bolivar Senior-Brown: <i>A Study of the Planning and Integrated Cyclic Analysis of Serial System Operations</i>	Advisory Committee Member	Graduated	Ph.D. (CE) August 1993
Santiago Reyna: <i>Multi-Objective Optimization Model for Sewer Rehabilitation</i>	Principal Advisor	Graduated	Ph.D. (CE); May 1993
Paul Torcellini: <i>Supervisory Control for Intelligent Building Systems</i>	Advisory Committee Member	Graduated	Ph.D. (ME); May 1992
Antonio González-Quevedo: <i>Sensitivity Analysis of Construction Simulation</i>	Advisory Committee Member	Graduated	Ph.D. (CE); August 1991

VI. Teaching Activities

A. Classroom and Laboratory Instruction (As Faculty Member)

(Teaching evaluations provided in Attachment B)

At the Georgia Institute of Technology – Semesters (Since Fall Semester 1999)

- CE4100 – Construction Engineering and Management
- CE4110 – Construction Planning and Estimating
- CE4120 – Construction Operations
- CE6120 – Environmentally Conscious Design and Construction (also listed as CE4803E – Sustainable Construction)
- CE6140 – Advanced Planning and Estimating Methods
- CEE8091 – Construction Seminar

At the Georgia Institute of Technology – Quarters (From Summer Quarter 1993 to Fall Quarter 1998)

- CE4003 – Construction
- CE4013 – Design of Process Operations
- CE4023 – Design and Construction of Building Systems
- CE4033 – Construction Equipment and Methods
- CE4043 – Basic Planning and Estimating Methods
- CE4073 – Computer Applications in Construction
- CE4083 – Advanced Planning and Estimating Methods
- CE4803 – Advanced Tools for Effective Project Management
- CE4803 – Infrastructure Assessment, Rehabilitation, and Renewal
- CE4823 – Introduction to Sustainable Development
- CE6013 – CE Management I (Planning)
- CE8061 – Construction Seminar
- CE8102 – Construction Research Seminar
- CE8501 – Special Problems–Civil Engineering CAD Seminar

At Purdue University, West Lafayette, Indiana (From Fall Semester 1988 to Spring Semester 1993)

- CE220 – Construction Management
- CE221 – Construction Plans and Estimates
- CE321 – Construction Planning and Schedules
- CE425 – Building Construction (later changed to Design–Construction Integration)
- CE425 – Design–Construction Integration
- CE520 – Construction Project Control Systems
- CE525 – Elements of Building Systems
- CE527 – Design of Construction Operations
- CE597 – Computer Applications in Construction
- CE620 – Construction Productivity Measurement and Improvement

B. Other Classroom and Laboratory Instruction (As Visiting Faculty)

- Visiting Scholar, Departamento de Ingeniería Civil, Programa de Maestría en Construcción, Universidad de los Andes, Bogotá, Colombia, Special Summer Semester (taught in a two week session):
 - *CIVIL – Environmentally Conscious Design and Construction* (June 2001)
 - *CIVIL – Analysis and Design of Construction Operations: A Framework, Strategies, and Tools for Productivity Improvement* (June 1998, 1999, 2000, and 2002)
- Visiting Scholar, Escuela de Ingeniería Civil y Administración, Programa de Maestría en Administración de la Construcción, Universidad Panamericana – Sede Guadalajara, Guadalajara, Mexico, Special Summer Semester (taught in a two week session):
 - *0427 – Research Methodology for Construction* (May 2000)
 - *0101 – Construction Project Planning and Scheduling* (May 1999 and 2000, and June/July 2002)
- Visiting Scholar, Facultad de Ingeniería, Programa de Maestría en Construcción, Universidad Autónoma de Yucatán, Mérida, Mexico, Special Summer Semester (taught in a five week session):
 - *IDS – Planning and Analysis of Construction Operations* (July – August 1997)
- Visiting Eminent Scholar, Arizona State University, Tempe, Arizona, Special Summer Semester (taught in a five week session):
 - *CON 598 # 82725 – Advanced Tools for Effective Project Management* (July – August 1995)
- Acting Assistant Professor, Stanford University, Stanford, California, Spring Quarter 1988:
 - *CE252 – Building Construction Estimating and Systems*

C. Other Teaching Activities (Continuing Education)

(List of sponsoring organizations provided in Attachment C)

Development and/or Delivery of Educational and Training Modules for Organizations in the U.S.

1. For the Sustainable Facilities and Infrastructure (SFI) Branch of the Safety, Health, and Environmental Technology Division, of the Georgia Tech Research Institute (SHETD/GTRI) at GT:
 - *Barriers to Project Sustainability* (2 hrs.), and *Implementing Sustainability* (2 hrs.), educational modules within the Continuing Education Series of SFI; Invited Course Module Developer and Instructor; (taught several times for different organizations)
 - ✓ Air Force Reserve Command, Westover ARB, Chicopee, Massachusetts (Scheduled – April 2003)
 - ✓ Air Force Reserve Command, Youngstown ARB, Youngstown, Ohio (taught 1 time – March 2003)
 - ✓ Air Force Space Command, Peterson AFB, Colorado Springs, Colorado (taught 1 time – August 2001)
 - ✓ Robins Air Force Base Environmental Management and Pollution Prevention Program, Warner Robins, Georgia (taught 1 time – June 2001)
 - ✓ Dobbins Air Reserve Base, Marietta, Georgia (taught 1 time – June 2001)
 - ✓ Homestead Air Reserve Station, Homestead, Florida (taught 1 time – June 2001)
 - ✓ Center for Disease Control (CDC), Atlanta, GA (taught 2 times – April, 2001, and November 2000)
 - ✓ Headquarters Air Force Reserve Command at Warner Robins Air Force Base, Macon, GA (taught 1 time – April 2000)
 - ✓ Warner Robins Air Force Base, Macon, GA (taught 1 time – July 2000)
2. For the National Aeronautics and Space Administration (NASA):
 - *Constructability* (8 hrs.), an educational module developed and customized for NASA within the Best Practices for Capital Project Course, currently managed by Pacific Connections, Fountain Hills, Arizona; originally through the Alliance for Construction Excellence (ACE), Arizona State University, Tempe, Arizona, 1996; Author and Instructor; (taught several times at multiple NASA locations)
 - ✓ General NASA Training Contract Facility, Virginia Beach, Virginia
 - ✓ General NASA Training Contract Facility, Hagerstown, Maryland
 - ✓ Ames Research Center, Moffett Field, California
 - ✓ Goddard Space Flight Center, Greenbelt, Maryland
 - ✓ Jet Propulsion Laboratory, Pasadena, California

- √ Johnson Space Center, Houston, Texas
- √ Kennedy Space Center, Florida
- √ Marshall Space Flight Center, Huntsville, Alabama
- √ Wallops Flight Facility, Wallops Island, Virginia

3. For the Construction Industry Institute (CII), Austin, Texas:

- *Modularization in Industrial Construction*, Educational Module EM-12 (4 hrs.) developed within the CII Continuing Education Short Courses (CESC) series, 1993; Author and Instructor; taught several times at:
 - √ Host Site No. 1: Continuing Education Services (CES) at The University of Texas at Austin; Austin, Texas, from 1992 to 1997
 - √ Host Site No. 2: Construction Industry Cooperative Alliance (CICA) at Clemson University; Clemson, South Carolina, from 1992 to 1997
 - √ Host Site No. 3: Alliance for Construction Excellence (ACE) at Arizona State University, Tempe, Arizona, from 1992 to 1997; and recently November 2002 and February 2003
- *Implementing Constructability*, Educational Module EM-11 (8 hrs.) developed within the CII Continuing Education Short Courses (CESC) series, The University of Texas at Austin; Austin, Texas, 1993; Member of the Action Team responsible for overseeing the development of the module; Invited Instructor; taught several times at:
 - √ Host Site No. 1: Continuing Education Services (CES) at The University of Texas at Austin; Austin, Texas, from 1992 to 1997
 - √ Host Site No. 2: Construction Industry Cooperative Alliance (CICA) at Clemson University; Clemson, South Carolina, from 1992 to 1997
 - √ Host Site No. 3: Alliance for Construction Excellence (ACE) at Arizona State University, Tempe, Arizona, from 1992 to 1997; and recently November 2002 and February 2003

4. For U.S. Steel; Lorain Tubular Company, LLC, Cleveland, Ohio

- *Project Alignment and Partnering Development*, a process and manual for capital project alignment and partnering seminars; Author and Instructor; (taught 1 time)
 - √ Quench and Temper Facility Project (8 hrs.); June 2001

5. For U.S. Steel Mon Valley Works – Irvin Plant, Dravosburg, Pennsylvania:

- *Project Alignment and Partnering Development*, a process and manual for capital project alignment and partnering seminars; Author and Instructor; (taught 1 time)
 - √ 84" Continuous Pickle Line Upgrade Project (16 hrs.); February 2001

6. For U.S. Steel Gary Works, Gary, Indiana:

- *Project Alignment and Partnering Development and Maintenance*, a process and manual for capital project alignment and partnering seminars; Author and Instructor; (taught several times for multiple projects)
 - √ Nos. 2 and 3 Batteries Pushing Emission Controls (PEC) Project (16 hrs.); February 2001
 - √ Boiler House Upgrade Project Phase Two (10 hrs.); February 2001
 - √ No. 1 Caster EMC Replacement Project (10 hrs.); January 2000
 - √ No. 2 QBOP Tuyere Cooling–Propane Project (10 hrs.); January 2000
 - √ Boiler House Upgrade Project (16 hrs.); July 1999
 - √ 20/20 Projects: Sub-lance, Oxygen Lance, Auxiliaries, and Charge Weigh (10 hrs.); April 1999
 - √ New Hydraulic Coilers Project Follow-up (16 hrs.); January 1999
 - √ New Hydraulic Coilers Project (16 hrs.); June 1998

7. For the Greater New Orleans Business Roundtable, through the Department of Civil and Environmental Engineering at the University of New Orleans, New Orleans, Louisiana:

- *Construction Planning for Start-up and Work Packaging for Project Control*, 8 hrs., based on published CII Educational Modules; Invited Instructor (taught 1 time – October 1999)
- *Managing Uncertainty and Team Dynamics*, 8 hrs., based on published CII Educational Modules; Invited Instructor (taught 1 time – June 1998)

- *Effective Management of Small/Special Projects: Strategies, Methods, and Tools*, an educational module (8 hrs.) partially based on published CII Educational Module; Invited Instructor (taught 1 time – October 1997)
8. For Business Roundtable Local User Councils:
- *Modularization in Industrial Construction*, based on published CII Educational Module, Invited Instructor; (taught several times for various councils)
 - √ Northwest Indiana Business Roundtable, Schererville, Indiana; (taught 1 time – July 1999)
 - √ Construction Owners Association of the Tri-State, Inc.; Cincinnati, Ohio, (taught 1 time – December 1994)
 - √ St. Louis Council of Construction Consumers; St. Louis, Missouri; (taught 1 time – June 1994)
9. For the Construction Industry Licensing Board of the Florida Department of Business and Professional Regulation:
- *Advanced Tools and Techniques for Effective Project Management*, 7 hrs, Officially Approved Course #04PO251–1 and Officially Approved Instructor (#04PO251) by the Construction Industry Licensing Board of the Florida Department of Business and Professional Regulation to provide Continuing Education classes to all contractors licensed by the Board, Atlanta, Georgia, 1994; Author and Instructor; (taught 2 times – June 1996, and July 1994)
10. For Georgia Pacific:
- *Constructability* (8 hrs.), an educational module developed and customized for Georgia Pacific through the Construction Industry Cooperative Alliance (CICA), Clemson University, Clemson, South Carolina, 1995; Author and Instructor; (taught several times from 1995 to 1997)
11. For FERMCO:
- *Constructability* (8 hrs.), an educational module developed and customized for FERMCO through the Construction Industry Cooperative Alliance (CICA), Clemson University, Clemson, South Carolina, 1995; Author only
12. For the Alliance for Construction Excellence (ACE) at Arizona State University, Tempe, Arizona:
- *Beyond Technical Competence...*, an educational module (4 hrs.); Author and Instructor; (taught 1 time – July 1995)
 - *Using Generic Software to Enhance Construction Project Management Effectiveness*, an educational module (4 hrs.); Author and Instructor; (taught 1 time – July 1995)
13. For the Electric Power Research Institute (EPRI) and Edison Electric Institute (EEI):
- *Implementing Constructability in Utility Companies*, an educational module (8 hrs.) developed and customized through the Construction Industry Institute (CII), The University of Texas at Austin; Austin, Texas, 1994; Co–Author and Co–Instructor, with James T. O’Connor; (taught 1 time – May 1994)
14. For the Indiana Department of Transportation (INDOT), Indianapolis, Indiana:
- *Design Project Management*, an educational module (8 hrs.) developed for INDOT, Division of Design, and the Consulting Engineering Industry in Indiana, Indianapolis, Indiana, 1992; Co–Author and Co–Instructor, with Bob McCullouch; (taught 4 times – August 1992)

Development and/or Delivery of Educational and Training Modules for Organizations outside the U.S.

1. For CEMEX, Monterrey, Mexico:
- *Technological Innovation in the Global Construction Industry: Trends, Challenges, and Opportunities*, an executive technical workshop (8 hrs.) developed and customized in English and delivered in Spanish; Author and Instructor; Monterrey, Mexico (taught 1 time – November 2000)
2. For Setal Engenharia e Construções S.A., Setal Construções, Sao Paulo, Brazil:
- *Conceptual Framework, Roadmap, and Tools for the Implementation of a Constructability Program*, a technical workshop (8 hrs.) developed and customized in English and delivered in Spanish; Author and Instructor; Sao Paulo, Brazil (taught 1 time – November 2000)
3. For Instituto de Desarrollo Urbano (IDU), Bogotá, Colombia:
- *Implementación de la Sostenibilidad: Un Plan de Acción (Implementing Sustainability: A Greenprint for Action)*, a technical workshop (8 hrs.) developed and customized in English and delivered in Spanish, through the

Departamento de Ingeniería Civil, Universidad de los Andes, Bogotá; Author and Instructor; Bogotá, Colombia (taught 1 time – October 2000)

4. For the Centro de Investigaciones en Vivienda y Construcción (CIVCO) of the Escuela de Ingeniería en Construcción del Instituto Tecnológico of Costa Rica, San José, Costa Rica:
 - *Gerencia Técnica y Productividad en Proyectos de Construcción (Technical Management and Productivity in Construction Projects)*, a workshop (8 hrs.) developed and customized in Spanish; Author and Instructor; San José, Costa Rica (taught 1 time – June 2000)
5. For the Asociación Colombiana de Empresas de Ingeniería y Consultoría (AICO), Bogotá, Colombia:
 - *Estrategia Gerencial para el Manejo del Valor, la Calidad, y el Desempeño en Beneficio de la Optimización de la Inversión en Obras Públicas (Strategies for Management of Value, Quality, and Performance Toward Optimization of Public Works Investment)*, a workshop (4 hrs.) developed and customized in Spanish; Author and Instructor; Bogotá, Colombia (taught 1 time – June 2000)
6. For the College of Engineering, Universidad Autónoma de Yucatán (UADY), Mérida, México:
 - *Research Initiatives, Programs, and Projects: A Collaborative Team-based Plan of Action*, a workshop (8 hrs.) developed and customized in Spanish; Author and Instructor; Mérida, México (taught 1 time – May 2000)
7. For the Centro de la Investigación y el Desarrollo de la Industria de la Construcción (CIDICO), Medellín, Colombia:
 - *Estrategias y Mecanismos de Avanzada para el Manejo Integral y Efectivo de Empresas y Proyectos de Construcción de Vivienda (Strategies and Advanced Methods for Integrated and Effective Management of Residential Construction Enterprises & Projects)*, a workshop (8 hrs.) developed and customized in Spanish; Author and Instructor; Medellín, Colombia (taught 1 time – April 2000)
8. For Associação das Empresas do Mercado Imobiliário de Pernambuco (ADEMI), Recife, Brazil:
 - *Estrategias, Técnicas, y Herramientas de Avanzada para el Manejo Efectivo de Empresas y Proyectos de Vivienda (Strategies, Methods, and Tools for Effective Management of Residential Construction Enterprises & Projects)*, a special course technical visit (40 hrs.) developed and customized in Spanish; Author and Instructor; Atlanta, Georgia (taught 1 time – November 1999)
 - *Estrategias, Técnicas, y Herramientas de Avanzada para el Mejoramiento de la Calidad y la Productividad, y para la Aplicación de Tecnologías Avanzadas en la Construcción de Vivienda (Advanced Strategies, Methods, and Tools for Quality and Productivity Improvement, and for the Application of Advanced Technologies in Residential Construction)*, a workshop (24 hrs.) developed and customized in Spanish; Author and Instructor; Recife, Brazil (taught 1 time – July 1999)
9. For the Escola Politecnica de Pernambuco and the Núcleo de Gestão da Qualidade na Construção Civil, Recife, Brazil:
 - *Mejoramiento de la Calidad y la Productividad, y para la Aplicación de Tecnologías Avanzadas en la Construcción de Vivienda (Quality and Productivity Improvement, and for the Application of Advanced Technologies in Residential Construction)*, a workshop (8 hrs.) developed and customized in Spanish, and presented at the I Congresso Internacional de Tecnologia e Gestão da Qualidade na Construção Civil; Author and Instructor; Recife, Brazil (taught 1 time – August 1999)
10. For the Cámara Colombiana de la Industria de la Construcción (CAMACOL), Bogotá, Colombia:
 - *Calidad, Productividad, y Aplicación de Tecnologías para la Construcción de Vivienda: Estrategias, Procesos, y Herramientas de Avanzada para la Gestión de Empresas en Epocas de Crisis (Quality, Productivity, and Application of Advanced Technologies in Residential Construction: Advanced Strategies, Methods, and Tools for Effective Management of Companies in Times of Crisis)*, a workshop (8 hrs.) developed and customized in Spanish; Author and Instructor; Bogotá, Colombia, and Manizalez, Colombia (taught 2 times – August 1999)
 - *Administración Efectiva y Eficiente de Proyectos de Construcción en Epocas de Crisis: Estrategias y Herramientas de Avanzada (Effective and Efficient Construction Project Management in Crisis Times: Advanced Strategies and Tools)*, a workshop (8 hrs.) developed and customized in Spanish; Author and Instructor; Seccional Caldas, Manizalez, Colombia (taught 1 time – November 1998)
11. For the Industria de Trabajos Eléctricos, S.A. de C.V., a division of Siemens Energy & Automation, Inc., Juárez, Mexico:

- *Estrategias, Técnicas, y Herramientas de Avanzada para el Manejo Efectivo de Proyectos (Advanced Strategies, Techniques, and Tools for Effective Project Management)*, an educational module (16 hrs.) developed and customized in Spanish; Author and Instructor; Juárez, Mexico (taught 1 time – May 1998)
12. For Ingenieros Civiles Asociados (ICA), Mexico City, México:
- *Estructuras de Organización para el Manejo Efectivo de Proyectos y Constructabilidad (Organizational Structures for Effective Project Management and Constructability)*, an educational module (8 hrs.) in Spanish developed and customized through the Universidad Nacional Autónoma de México (UNAM), Mexico City, Mexico, 1998; Author and Instructor; (taught 2 times – February 1999, and March 1998)
 - *Taller Ejecutivo de Innovación Tecnológica: Sistema de Tecnología Empresarial para ICA (Executive Workshop for Technological Innovation: An Enterprise Technological System for ICA)*, a workshop (24 hrs.) developed and customized in Spanish; Author and Instructor (taught 1 time – October 1997)
13. For the Fundación de la Industria de la Construcción (FIC), Mexico City, México:
- *Taller Ejecutivo de Innovación Tecnológica para la Construcción (Executive Workshop on Technological Innovation in Construction)*, a workshop (8 hrs.) developed and customized in Spanish; Author and Instructor; (taught 1 time – August 1997)
 - *Herramientas y Tecnicas de Avanzada para el Manejo Efectivo de Proyectos (Advanced Tools and Techniques for Effective Project Management)*, an educational module (8hrs.) developed and customized in Spanish; Author and Instructor; (taught 1 time – August 1996)
 - *Constructabilidad y Modularizacion (Constructability and Modularization)*, an educational module (4 hrs.) developed and customized in Spanish; Author and Instructor; (taught 1 time – March 1995)
14. For the Departamento de Ingeniería Civil, Universidad de los Andes, Bogotá:
- *Tecnologías Avanzadas de Computación para la Ingeniería, Administración, y Gerencia de la Construcción (Advanced Computer Technologies for Construction Engineering and Management)*, an educational module (20 hrs.) developed and customized in Spanish within the Continuing Education Short Course Series for Construction Professionals; Co–Author and Co–Instructor, with Diego Echeverry; (taught 1 time – September 1994)
 - *Tendencias e Innovaciones en Tecnologías de Computación para la Ingeniería, Administración, y Gerencia de la Construcción de la Construcción (Innovations and Trends in Computer Applications for Construction Engineering and Management)*, an educational module (20 hrs.) developed and customized in Spanish within the Continuing Education Short Course Series for Construction Professionals; Co–Author and Co–Instructor, with Diego Echeverry; (taught 1 time – March 1993)

VII. Service Activities

A. Professional Contributions (Special Appointments)

Current External Special Appointments

- Member (invited) of the *Technical Advisory Board* of the *Fully Integrated and Automated Technologies (FIATECH)* Consortium, since December, 2002 [CEM/CEE became an Institutional Member of FIATECH]
- Member (invited) of the *Sustainable Construction Subcommittee* of the *National Construction Image Steering Committee* of the National Center for Construction Education and Research (NCCER), since November, 2001
- Member of the *Task Group 48 (TG48) - Social and Economic Aspects of Sustainable Construction* of the *CIB Commission on Sustainable Construction* of the International Council for Research and Innovation in Building and Construction (CIB), since March, 2001
- Member (invited) of the *Committee on Sustainability* of the *Technical Activities Committees (TAC)* of the American Society of Civil Engineers (ASCE), since January, 2001

- Member of the *Working Commission 7 on Sustainable Engineering* of the *Technical Committee* of the International Association of Bridge and Structural Engineers (IABSE), since August, 1999
- Active Participant in the *Engineers Forum on Sustainable Development* of the American Society for Engineering Education (ASEE), co-sponsored with ASCE, since October, 1997;
- Member of the *Construction Research Council of the American Society of Civil Engineers*; since Fall 1988 (served as Elected Chair of the Council 1993 – 94; Vice-Chair 1992 – 93; Secretary 1991 – 92; Newsletter Editor 1990 – 1993)
- Review Panel Member of the *ASCE Journal of Construction Engineering and Management*

Past External Special Appointments

- Invited Member of the LEAD Curriculum Advisory Committee for *LEAD (Leadership for Environment and Development) International, Inc.*, New York, New York, January 1999 – March 2001
- Invited Member of the *Committee on Sustainability* of the International Activities Committee (IntAC) of the American Association of Engineering Societies (AAES)
- Invited Member of NSF Review Panels, Washington D.C.:
 - ◊ ESS Program
 - ◊ CAREER Program
 - ◊ Construction, Geotechnical, and Structural Systems Cluster/Program
 - ◊ CRCO Program
 - ◊ IGERT Program
 - ◊ ERC Program
 - ◊ Structural Systems and Construction Processes (SSCP) Program
- Foundation Coalition Renewal Proposal (Years 6–10) Site Visit, Arizona State University, Tempe, Arizona, February 1998
- Invited Member of the Editorial Board of the *Revista Ingeniería de Construcción (Construction Engineering Journal)*, Department of Construction Engineering and Management, Pontificia Universidad Católica de Chile, July 1995 – Summer 1997
- Invited Member of the External Advisory Committee for the *Civil Infrastructure Research Center* at the University of Puerto Rico–Mayagüez, Mayagüez, Puerto Rico, April 1993 – Spring 1998
- Review Panel Member of the *ASCE Journal of Computing in Civil Engineering*, June 1993 – Summer 1997
- Associate Editor of the Interactive Construction Online Journal, Chapman and Hall, Fall 1996 – Summer 1997
- Invited Technical Program Chair of the *Third Congress of Computing in Civil Engineering of the American Society of Civil Engineers*, Anaheim, California, held June 1996
- Member of the *ASCE Task Committee on Image Processing*, June 1993 – June 1996 (Control Group Member 1993 and 1994)
- Organizing Committee Member and Co–Chair of Technical Session 3 – Education for the Profession and the Public, for the Specialty Conference on “*Sustainable Development: Creating Agents of Change*,” sponsored by the Engineering Foundation and the American Association of Engineering Societies (AAES), Snowbird, Utah, August 1995
- Organizing Committee Member and Chairperson of Technical Track A – Digitizing and Digital Information Management, for the Specialty Conference on “*Digital Image Processing: Techniques and Applications for Civil Engineering*,” sponsored by the Engineering Foundation and the National Science Foundation, Kona, Hawaii, March 1993
- Member of the Project Panel F14–9(6): Professional Developments of Maintenance Engineers and Managers, National Research Council – Transportation Research Board, National Cooperative Highway Research Program (NCHRP), March 1990 - July 1992
- Executive Board Member, Construction Engineering Committee of the American Society for Engineering Education (ASEE), June 1992 – June 1994

- Executive Board Member, New Engineering Educators (NEE) of the American Society for Engineering Education (ASEE), June 1989 – June 1991

B. Campus Contributions

Current Service Appointments at Georgia Tech

- Georgia Tech Liaison (Invited) for the *Hispanic Association of Colleges and Universities (HACU)*, since April 2002
- Georgia Tech Liaison (Invited) for the *Center for Hemispherical Cooperation in Research and Education in Engineering and Applied Science (COHEMIS)* at the University of Puerto Rico–Mayagüez, Mayagüez, Puerto Rico, since March 1999
- Member of the CEE 3i Committee
- Member of the CEE Undergraduate Studies Committee
- Member of the CEE Chair Search Committee
- Faculty Advisor for the Society of Hispanic Professional Engineers (SHPE) Student Chapter in the College of Engineering at the Georgia Institute of Technology, Atlanta, Georgia; Since August 1999 (previously from September 1993 to September 1995); SHPE–GT received the following awards:
 - 2003 Outstanding Student Chapter Region VII at the National Technical Career Conference
 - 2002 Outstanding Student Chapter Region VII at the Eastern Technical Career Conference
 - 2002 Outstanding Student Chapter Region VII at the National Technical Career Conference
 - 2001 Most Improved Student Chapter Region VII at the National Technical Career Conference

Past Service Appointments at Georgia Tech

- Invited to be part of the *Facilities and Structures* group of the *Georgia Tech Homeland Defense Initiative* Off-site Retreat on , February 28 & March 1, 2003
- Managed a Georgia Tech booth to recruit potential graduate students within the Graduate Fair at the *National Technical Career Conference (NTCC)* of the Society of Hispanic Professional Engineers (SHPE), New Orleans, Louisiana, January, 2003
- Member of the College of Engineering Task Force on the M.S. Engineering/Management Degree
- Member of the CEE Graduate Studies Committee
- Member of the CEE Awards Committee
- Member of the College of Architecture Dean’s Executive Council
- Elected Faculty Representative from the School of Civil and Environmental Engineering to the General Faculty Assembly, 1996–1998
- Member of the Steering Committee of the Edutech Institute, Fall 1996 - Summer 1998
- Member of the Search Committee for the Chair of the School of Public Policy, Fall 1997, and Winter 1998
- Member of the Advisory Committee for the Construction Research Center of the College of Architecture at the Georgia Institute of Technology, Atlanta, Georgia, March 1994 - September 1997
- Cluster Leader for the 1996 Fall Session of the LeaderShape Institute at Georgia Tech
- Member of the Search Committee for the Associate Dean for Diversity, Fall 1996
- Invited Member of the Technical Advisory Board of the Edutech Institute, from Fall Quarter 1994 to Fall 1996
- Member of the Honors Committee of the College of Engineering, 1994 – 95 academic year
- Member of the Search Committee for Director Position in the School of Civil and Environmental Engineering, Fall and Winter 1994 – 95 academic year
- Member of the Search Committee for Construction Faculty Position in the School of Civil and Environmental Engineering, 1993 – 1994 and 1994 – 95 academic years

- Member of the Search Committee for Structures Faculty Position in the School of Civil and Environmental Engineering, 1993–1994 academic year

Selected Past Service Appointments at Purdue University

- Faculty Advisor of the Purdue Student Chapter of the Society of Hispanic Professional Engineers (SHPE), from Fall 1988 to Spring 1993; during this period, SHPE–Purdue received the following awards:
 - 1989–1990 National Most Improved Student Chapter
 - 1990–1991 National Outstanding Student Chapter
 - 1990–1991 National Hispanic Student Role Model (for the Chapter President)
 - 1990–1991 Regional Outstanding Student Chapter (Region IV)
 - 1991 Region IV Eastern Technical Conference Outstanding Student Chapter
 - 1991 Midwest Regional Chicago Chapter (MRCC) Outstanding Student Chapter
 - 1991–1992 Regional Outstanding Student Chapter (Region VI)
 - 1992 Midwest Regional Chicago Chapter (MRCC) Outstanding Student Chapter
- Coordinator *Computer Research Laboratory* of the Division of Construction Engineering and Management, from Fall 1988 to Spring 1993
- Chairman of the *Teaching Innovation and Evaluation Committee* in the School of Civil Engineering, from Fall 1990 to Spring 1992
- Co–Director Purdue Housing Research Program, from Spring 1991 to Fall 1992
- Member of the *Faculty/Student Mentor Program* of the Dean of Students Office, from Fall 1990 to Spring 1993

C. Other Professional Contributions

Professional Society Memberships

- American Society of Civil Engineers (ASCE)
- American Society for Engineering Education (ASEE)
- Society of Hispanic Professional Engineers (SHPE)
- Urban Land Institute (ULI)
- Project Management Institute (PMI)
- International Association of Bridge and Structural Engineers (IABSE)
- Sociedad Colombiana de Arquitectos (SCA) – Bogotá, Colombia (currently inactive)

Selected Professional and Consulting Activities:

- Expert Witness for the Plaintiff in the Dennis Troy Alderman et al. vs. Miami Lakes Development, Inc. et al. Case, David B. Mishael, Attorney at Law, Miami, Florida, July 1994 – March 1996
- International Consultant for Development of Feasibility Study for the Establishment of a Research Center in Uruguay, Inter–American Development Bank, Washington, D.C., August–September 1994
- Approved Consultant on Constructability, Electric Power Research Institute (EPRI), Palo Alto, California, since October 1994 (currently inactive)
- Project Management Consultant, PCM Development Company, Middletown, New York, Summer 1990
- Project Management Consultant and Principal, LSV Inc., Denver, Colorado, since Summer 1989 (currently inactive)
- Consultant for Implementation of Computer–Based Management Systems, Innovative Systems, Boulder, Colorado, since February 1989 (currently inactive)

- Consultant for International Ventures, IPD–International Projects Development, San Francisco, California, since January 1987 (currently inactive)
- Consultant for International Ventures and Computer Applications, AIRCOA, Denver, Colorado, January – August 1988
- Consultant for International Ventures, Chemcrete International, San Mateo, California, September 1987 – April 1988
- Software Development and Scheduling Consultant, CM Consultants, Inc., Danville, California, October – November 1987 & Summer 1985
- Software Development Consultant, Guy F. Atkinson Construction Company, South San Francisco, California, February – June 1987

VIII. Honors and Awards

Professional

- Elected *Honorary Member* of the Colegio Federado de Ingenieros y Arquitectos, San José, Costa Rica, September, 2002
- *Educator of the Year Award*, Society of Hispanic Professional Engineers (SHPE), presented at the 2001 National Technical Career Conference, Fresno, California, February 2001
- *Instructor of the Year Award*, The Construction Industry Institute, presented at the CII Annual Conference, San Diego, California, August 1995 (first recipient)
- *National Science Foundation Young Investigator Award*, National Science Foundation, Washington, D.C., August 1992

University

- *The Fred and Teresa Estrada Professor*, College of Engineering, Georgia Institute of Technology, Atlanta, Georgia, August 1999
- *1998 Georgia Tech Outstanding Interdisciplinary Activities Award*, Georgia Institute of Technology, May 1998.
- *Junior Faculty Grant Award*, GE Foundation “Faculty for the Future” Program; 1991–92 and 1992–93 academic years
- *Recognition for Excellent Contribution as a Faculty Advisor*, SHPE Purdue Chapter, Purdue University; Spring 1991 and Spring 1992
- *Outstanding Professor of Construction Engineering*; Construction Engineering Honorary (Beta Tau), Purdue University; Fall 1989
- *AGC Student Chapter Student Service Award*, Stanford University; Fall 1986
- *Construction Engineering and Management Student Service Award*, Stanford University; Spring 1985
- *Utah Construction Fellowship* for graduate studies; 1985 – 86 academic year
- *Marx Mareno Fellowship* for graduate studies; 1984 – 85 and 1985 – 86 academic years

IX. Personal Information

Place of Birth:	Bogotá, Colombia, South America
Date of Birth:	10/17/56
Citizenship:	U.S. citizen (by naturalization 10/12/91)
Marital Status:	Married to Loretta Vanegas (December 22, 1992)
Children:	Angela María Nichelle Vanegas (born August 21, 1993) Sean Michael Vanegas (born October 11, 1995)
Languages:	Completely fluent in written and oral Spanish and English
Registration:	Licensed as an Architect in Colombia (inactive status)

ATTACHMENT A

SPONSORED PROJECTS SUMMARY

Principal Domains of Research Activities

Technical Domain

- Built Environment Sustainability and Security (facilities and civil infrastructure systems)
- Advanced strategies, tools, and methods for integrated capital asset delivery and management
- Design/construction integration in the development and rehabilitation of facilities and civil infrastructure systems
- Constructability programs and advanced modularization technologies
- Advanced strategies, tools, and methods for affordable housing

Education Domain

- Undergraduate and graduate curricula development
- Continuing education and technology transfer program development

Sponsored Projects as Principal and Co-Principal Investigator

Principal Funded Projects – Technical Domain

<u>Project Start/Duration</u>	<u>Sponsor</u>	<u>Project Description</u>	<u>Project Involvement</u>
17. August 2002 (12 months)	Army Environmental Policy Institute <u>Amount:</u> \$33,144 (20% Salary Coverage through an Intergovernmental Personnel Act appointment)	<i>Policy Development and Implementation for Sustainable Army Installations (Phase III)</i>	Proposal Author and Project PI
16. June 2002 (3 months)	Granite Construction <u>Amount:</u> \$6,300 (for student support, through the National Center for Construction Education and Research Subcommittee on Sustainable Construction)	<i>Compilation of the State-of-the-Art of Sustainability in Construction</i>	Proposal Author and Project PI
15. August 2001 (12 months)	Army Environmental Policy Institute <u>Amount:</u> \$49,447 (40% Salary Coverage through an Intergovernmental Personnel Act appointment)	<i>Policy Development and Implementation for Sustainable Army Installations (Phase II)</i>	Proposal Author and Project PI
14. September 2000 (36 months)	Construction Industry Institute – Research Team 171 <u>Amount:</u> \$47,394	<i>Modularization, Pre-assembly, and Off-site Construction</i>	Proposal Co-Author and Project Co-PI (with Haas, U. Texas at Austin; and Tatum, Stanford University)
13. August 2000 (12 months)	Army Environmental Policy Institute <u>Amount:</u> \$23,829 (20% Salary Coverage through an Intergovernmental Personnel Act appointment)	<i>Policy Development and Implementation for Sustainable Army Installations (Phase I)</i>	Proposal Author and Project PI

12. August 1999 (5 years)	College of Engineering Fred and Teresa Estrada Professorship at GT <u>Amount</u> : \$30,000 per year	<i>Sustainable Affordable Housing Education, Research, and Outreach for the U.S. and the Americas</i>	Nominated and Selected as Recipient
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As Principal and Co-Principal Investigator (continued...)
Principal Funded Projects – Technical Domain (continued)

<u>Project Start/Duration</u>	<u>Sponsor</u>	<u>Topic</u>	<u>Involvement</u>
11. January 1999 (6 months)	Georgia Tech Foundation through the College of Engineering <u>Amount</u> : \$28,542 (Administrative leave from the School of Civil and Environmental Engineering during the 1999 Winter and Spring Quarters) plus \$35,000 in matching funds from Winter Construction Company	<i>Environmentally Conscious Design and Construction of Facilities and Civil Infrastructure Systems</i>	Proposal Author and Project PI
10. January 1999 (6 months)	Clark Atlanta University <u>Amount</u> : \$35,000 Special subcontract	<i>Technology-based Economic Development for the 5th District of the State of Georgia</i>	Proposal Co-Author and Project Co-PI (with Kangari/BC, GT)
9. April 1997 (6 months)	National Science Foundation – CONACyT Collaborative Research Opportunities (CRO) Program <u>Amount</u> : \$10,000 (Supplement to NSF-NYI award)	<i>Environmentally Conscious Design and Construction of Affordable Housing</i>	Proposal Author and Project PI
8. April 1997 (6 months)	National Science Foundation – Research Experiences for Undergraduates (REU) Program <u>Amount</u> : \$10,000 (Supplement to NSF-NYI award)	<i>Environmentally Conscious Design and Construction Research Initiative</i>	Proposal Author and Project PI
7. April 1997 (1 year)	Georgia Research Alliance – Equipment Grant <u>Amount</u> : \$229,100	<i>Advanced Computer Laboratory for Environmentally Conscious Design and Construction Research Initiative</i>	Proposal Author and Project PI
6. January 1995 (3 years)	Construction Industry Institute <u>Amount</u> : \$135,000	<i>Innovative Practices for Cost Effective Projects</i>	Proposal Author and Project PI
5. January 1994 (4 months)	Delta Research Corp./U.S. Air Force <u>Amount</u> : \$27,327	<i>A Workshop on Life Cycle Environmental Costing for Weapons Systems Development, Acquisition, Logistics and Disposal</i>	Invited and Selected as Co-Chair (with Frost/CEE, GT)
4. August 1992 (5 years)	National Science Foundation – National Young Investigator (NYI) Award [Grant No. CMS-9396314] <u>Amount</u> : \$125,000 base award (Plus \$187,500 with industry matching funds of \$187,500 for a total of \$500,000; transferred from Purdue to Georgia Tech)	<i>Integrated Design/Construction Research Program for Infrastructure Rehabilitation</i>	Nominated and Selected, PI

3. January 1993 (1 year)	Joint Highway Research Project (JHRP)–Indiana Department of Transportation/Purdue <u>Amount</u> : \$50,000	<i>An INDOT Constructability Program and Constructability Lessons Learned Integrated Multimedia System</i>	Proposal Co–Author and Research Associate (with McCullouch/CE, Purdue)
2. January 1992 (1 year)	Bechtel, Inc., Engineering and Construction Technologies <u>Amount</u> : \$5,000	<i>Implementation of Computer Technologies in Project Field Environments</i>	Selected, PI
1. January 1991 (10 months)	Bechtel, Inc., Engineering and Construction Technologies <u>Amount</u> : \$5,000	<i>Real–Time Instrumentation and Sensors During Construction on Co–Generation Project Jobsites</i>	Selected, PI

Principal Funded Projects – Education Domain

<u>Project Start/Duration</u>	<u>Sponsor</u>	<u>Topic</u>	<u>Involvement</u>
27. June 2001 (1 month)	U.S. Steel; Lorain Tubular Company, LLC – Quench and Temper Facility Project <u>Amount</u> : \$8,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI
26. March 2001 (1 month)	U.S. Steel Gary Works – Nos. 2 & 3 Batteries Pushing Emissions Control (PEC) Project <u>Amount</u> : \$9,200 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI
25. February 2001 (1 month)	U.S. Steel Mon Valley Works, Irvin Plant – 84” Continuous Pickle Line Upgrade Project <u>Amount</u> : \$9,200 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI
24. February 2001 (1 month)	U.S. Steel Gary Works – Boiler House Upgrade Phase II Project <u>Amount</u> : \$7,360 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Maintenance Seminar</i>	Proposal Author and Project PI
23. October 2000 (2 months)	CEMEX <u>Amount</u> : \$4,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Technical Workshop on Technological Innovation in the Global Construction Industry: Trends, Challenges, and Opportunities for CEMEX</i>	Proposal Author and Project PI
22. September 2000 (3 months)	Setal Engenharia e Construções S.A., Setal Construções <u>Amount</u> : \$12,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Technical Workshop on a Conceptual Framework, Roadmap, and Tools for the Implementation of a Constructability Program within Setal Engenharia e Construções S.A.</i>	Proposal Author and Project PI

21. January 2000 (1 month)	U.S. Steel Gary Works – No. 1 Caster EMC Replacement Project <u>Amount:</u> \$8,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI
20. January 2000 (1 month)	U.S. Steel Gary Works – No. 2 QBOP Tuyere Cooling–Propane Project <u>Amount:</u> \$8,000 (through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI
19. November 1999 (1 month)	Associação das Empresas do Mercado Imobiliário de Pernambuco <u>Amount:</u> \$7,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Special Course/Technical Visit on Strategies, Methods, and Tools for Effective Management of Residential Construction Enterprises & Projects</i>	Proposal Author and Project PI
18. July 1999 (1 month)	U.S. Steel Gary Works – BH Upgrade Project <u>Amount:</u> \$10,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI
17. April 1999 (1 month)	U.S. Steel Gary Works – 20/20 Projects: Sub–lance, Oxygen Lance, Auxiliaries, and Charge Weigh <u>Amount:</u> \$10,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI

As Principal and Co–Principal Investigator (continued...)

Principal Funded Projects – Education Domain (continued)

<u>Project Start/Duration</u>	<u>Sponsor</u>	<u>Topic</u>	<u>Involvement</u>
16. January 1999 (2 months)	U.S. Steel Gary Works – New Hydraulic Coilers Project <u>Amount:</u> \$12,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Maintenance Seminar</i>	Proposal Author and Project PI
15. October 1998 (3 years)	GE Fund <u>Amount:</u> \$300,000	<i>Faculty for the Future Program</i>	Project Co–PI (with Wepfer/ME, May/ECE, Baker/CEE, GT)
14. May 1998 (2 months)	U.S. Steel Gary Works – New Hydraulic Coilers Project <u>Amount:</u> \$16,000 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Project Alignment and Partnering Development Seminar</i>	Proposal Author and Project PI
13. February 1998 (2 months)	Siemens Energy & Automation, Inc. <u>Amount:</u> \$17,700 (Through Continuing Education – College of Engineering)	<i>Development and Delivery of a Course on Advanced Strategies, Techniques, and Tools for Effective Project Management (in Spanish)</i>	Proposal Author and Project PI
12. April 1995 (6 months)	EduTech at Georgia Tech <u>Amount:</u> \$10,515 plus \$12,650 in matching funds	<i>An Integrated Case–Based Environment for Design</i>	Project Co–PI (with Chinowsky/CEE, Lonnman/ARCH, GT)

11. September 1994 (3 years)	National Science Foundation – Combined Research Curriculum Development (CRCD) Program [Grant No. EEC-9420522] <u>Amount</u> : \$220,018	<i>A Curriculum for Infrastructure Assessment, Rehabilitation, and Reconstruction</i>	Proposal Co-Author and Project Co-PI (with Rix/CEE, Zureick/CEE, Baker/CEE, Jacobs/CEE, GT)
10. Summer 1994 (8 weeks)	National Science Foundation <u>Amount</u> : \$32,056 (Supplement to existing NSF-CCD & NYI awards)	<i>Georgia Industrial Fellowships for Teachers</i>	Proposal Author and Project PI
9. January 1994 (4 years)	GE Fund <u>Amount</u> : \$925,000	<i>A Curriculum for Sustainable Development and Technology</i>	Proposal Principal Author and Project Co-PI (with White/COE, Chameau/CEE, GT)
8. January 1994 (2 years)	National Science Foundation – Course and Curriculum Development (CCD) Program [Grant No. DUE-9354483] <u>Amount</u> : \$100,000	<i>Curriculum for an Integrated Course Sequence in Sustainable Development and Technology</i>	Proposal Principal Author and Project Co-PI (with Chameau/CEE, GT)
7. September 1993 (3 years)	NASA <u>Amount</u> : \$36,000 (Used to support an undergraduate student)	<i>NASA Undergraduate Student Researchers Program</i>	Invited and Selected as Project PI
6. June 1993 (1 year)	EduTech at Georgia Tech <u>Amount</u> : \$23,163 plus \$26,573 in matching funds	<i>An Integrated Multimedia Support System for Teaching Sustainable Development and Technology Using a Problem-Based, Case- Based and Collaborative Learning and Reasoning Approach</i>	Proposal Author and Project Co-PI (with Guzdial/COC, GT)
5. September 1992 (1 year)	GE Foundation “Faculty for the Future” Program <u>Amount</u> : \$7,000 + \$7,000 in required matching funds	<i>Junior Faculty Grant Award (Renewal)</i>	Selected, PI

As Principal and Co-Principal Investigator (continued...)

Principal Funded Projects – Education Domain (continued)

<u>Project Start/Duration</u>	<u>Sponsor</u>	<u>Topic</u>	<u>Involvement</u>
4. February 1992 (1 year)	Purdue Engineering Dean's Club Creative Undergraduate Instruction Project Program <u>Amount</u> : \$9,445	<i>Real-time Integrated Computer-Aided Instruction: An Electronic Syllabus for Undergraduate Civil Engineering Education</i>	Proposal Author and Project PI
3. October 1991 (1 year)	GE Foundation “Faculty for the Future” Program <u>Amount</u> : \$7,000 + \$7,000 in required matching funds	<i>Junior Faculty Grant Award</i>	Selected, PI
2. November 1990 (1 year)	Purdue Affirmative Action Incentive Grants Competition <u>Amount</u> : \$2,000	<i>Development of Recruitment and Education Advancement Committee for Hispanics (REACH) and Retention Programs for SHPE- Purdue Student Chapter</i>	Proposal Author and Project PI

<p>1. January 1989 (1 year)</p>	<p>Purdue Engineering Dean's Club Creative Undergraduate Instruction Project Program <u>Amount</u>: \$10,500</p>	<p><i>Integrated Video/Computer Technology in Civil Engineering Education</i></p>	<p>Proposal Co-Author and Project Co-PI (with Nelson/CE, Purdue)</p>
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ATTACHMENT B

TEACHING EVALUATIONS SUMMARY

Classroom and Laboratory Instruction at GT

Since Semester Conversion (Since Fall Semester 1999)

Academic Quarter	Cr.	No.	Title of Course Taught	Enrollment	Core Item Clusters	Teaching Effectiveness
Spring 2003	3	CEE4100 A	Construction Engineering and Management	57 students	Not Available Yet	Not Available Yet
Spring 2003	3	CEE4120	Construction Operations <i>(Offered for select graduate students)</i>	38 students	Not Available Yet	Not Available Yet
Spring 2003	3	CEE6130	Construction Project Controls	14 students	Not Available Yet	Not Available Yet
Fall 2002	3	CEE4100 A	Construction Engineering and Management <i>(This is a GTREP Course at Georgia Tech)</i>	36 students (16 responses)	CQ1 (4.7) CQ2 (4.2) CQ3 (4.1)	4.2
Fall 2002	3	CEE4100 RPY	Construction Engineering and Management <i>(This is a GTREP Course at Georgia Southern University)</i>	<i>Survey results for this section exist, but are not available because there are not enough responses to both maintain student privacy and provide an accurate picture of the section & instructor</i>		
Fall 2002	3	CEE6100	Construction Project Planning	23 students (9 responses)	CQ1 (4.3) CQ2 (4.3) CQ3 (4.4)	4.4
Fall 2002	3	CEE4803 B	Construction Project Planning <i>(Offered within CEE6120 for select undergraduate students)</i>	<i>Survey results for this section exist, but are not available because there are not enough responses to both maintain student privacy and provide an accurate picture of the section & instructor</i>		
Fall 2002	3	CEE6120	Environmentally Conscious Design and Construction	17 students (7 responses)	CQ1 (4.3) CQ2 (4.1) CQ3 (4.2)	4.4
Fall 2002	3	CEE4803 C	Environmentally Conscious Design and Construction <i>(offered within CEE6120 for select undergraduate students)</i>	<i>Survey results for this section exist, but are not available because there are not enough responses to both maintain student privacy and provide an accurate picture of the section & instructor</i>		
Summer 2002	No Courses Taught this summer					
Spring 2002	3	CEE4100 A	Construction Engineering and Management	51 students (22 responses)	CQ1 (4.4) CQ1 (4.5) CQ1 (4.1)	4.7
Spring 2002	3	CEE4803 A	Environmentally Conscious Design and Construction <i>(offered within CEE6120 for select undergraduate students)</i>	24 students (11 responses)	CQ1 (3.3) CQ1 (3.9) CQ1 (3.5)	4.6
Spring 2002	3	CEE6120	Environmentally Conscious Design and Construction	26 students (8 responses)	CQ1 (3.9) CQ1 (3.3) CQ1 (3.5)	3.8
Spring 2002	1	CEE8091	Construction Seminar (no formal teaching; primarily guest speakers and activities)	19 students	Not Applicable	Not Applicable
Fall 2001	3	CEE4100	Construction Engineering and	38 students	C1 (4.8)	4.7

		A	Management <i>(This is a GTREP Course at Georgia Tech)</i>	(16 responses)	C2 (4.7) C3 (4.5)	
Fall 2001	3	CEE4100 RPK	Construction Engineering and Management <i>(This is a GTREP Course at Armstrong Atlantic State University)</i>	3 students (2 responses)	C1 (4.5) C2 (5.0) C3 (5.0)	5.0

Classroom and Laboratory Instruction at GT (continued)

Since Semester Conversion (continued))

Academic Quarter	Cr.	No.	Title of Course Taught	Enrollment	Core Item Clusters	Teaching Effectiveness
Fall 2001	3	CEE4100 RPY	Construction Engineering and Management <i>(This is a GTREP Course at Georgia Southern University)</i>	4 students (2 responses)	C1 (5.0) C2 (5.0) C3 (3.5)	4.5
Fall 2001	3	CEE4110	Basic Planning and Estimating Methods	38 students (16 responses)	C1 (4.0) C2 (3.7) C3 (3.8)	4.0
Summer 2001	3	CEE4100	Construction Engineering and Management <i>(This course was taught by Mr. Stephen Mulva as primary instructor, under supervision of Dr. Vanegas)</i>	38 students (16 responses)	C1 (4.1) C2 (4.6) C3 (3.8)	4.2
Spring 2001	3	CEE4100 A	Construction Engineering and Management <i>(This is a GTREP Course at Georgia Tech)</i>	38 students (12 responses)	C1 (4.1) C2 (4.2) C3 (4.0)	4.3
Spring 2001	3	CEE4100 RPK	Construction Engineering and Management <i>(This is a GTREP Course at Armstrong Atlantic State University)</i>	8 students (7 responses)	C1 (3.2) C2 (3.5) C3 (3.0)	5.0
Spring 2001	3	CEE4100 RPY	Construction Engineering and Management <i>(This is a GTREP Course at Georgia Southern University)</i>	9 students (5 responses)	C1 (3.2) C2 (3.7) C3 (3.0)	3.3
Spring 2001	3	CEE4120	Construction Operations	36students (17responses)	C1 (3.9) C2 (4.2) C3 (3.7)	4.3
Fall 2000	3	CEE4100	Construction Engineering and Management	33 students (20 responses)	C1 (4.0) C2 (4.3) C3 (3.8)	4.4
Fall 2000	3	CEE4110	Basic Planning and Estimating Methods	29 students (10 responses)	C1 (4.2) C2 (4.4) C3 (4.1)	4.4
Fall 2000	3	CEE4803E	Sustainable Construction <i>(offered within CEE6120)</i>	6 students (1 responses)	C1 (3.8) C2 (4.2) C3 (4.0)	5.0
Fall 2000	3	CEE6120	Environmentally Conscious Design and Construction	17 students (11 responses)	C1 (4.1) C2 (4.1) C3 (3.9)	4.1
Spring 2000	3	CEE4100	Construction Engineering and Management	49 students (20 responses)	C1 (3.5) C2 (3.5)	3.6

					C3 (3.6)	
Spring 2000	3	CEE4120	Construction Operations	37 students (16 responses)	C1 (3.3) C2 (3.6) C3 (3.5)	3.4
Spring 2000	3	CEE6140	Advanced Planning and Estimating Methods	13 students (6 responses)	C1 (3.4) C2 (4.0) C3 (3.4)	4.0
Spring 2000	1	CEE8091	Construction Seminar (no formal teaching; primarily guest speakers and activities)	10 students	Not Applicable	Not Applicable
Fall 1999	3	CEE4100 (Section A)	Construction Engineering and Management	37 students (22 responses)	C1 (4.1) C2 (4.3) C3 (4.2)	4.1
Fall 1999	3	CEE4100 (Section B)	Construction Engineering and Management	20 students (8 responses)	C1 (3.9) C2 (3.8) C3 (3.8)	4.3

Classroom and Laboratory Instruction at GT (continued)

Since Semester Conversion (continued))

Academic Quarter	Cr.	No.	Title of Course Taught	Enrollment	Core Item Clusters	Teaching Effectiveness
Fall 1999	3	CEE4110	Construction Planning and Estimating	52 students (27 responses)	C1 (3.5) C2 (4.2) C3 (4.1)	3.9
Fall 1999	1	CEE8091	Construction Seminar (no formal teaching; primarily guest speakers and activities)	8 students	Not Applicable	Not Applicable

- In addition, involved in general supervision of Special Problems (undergraduate students), M.S. Independent Research Studies (graduate students), and Ph.D. Dissertations every semester

Before Semester Conversion (From Summer Quarter 1993 to Summer Quarter 1999)

Academic Quarter	Cr.	No.	Title of Course Taught	Enrollment	Core Item Clusters	Teaching Effectiveness
Spring 1999	—	—	No Teaching Activity (on administrative leave from the School of Civil and Environmental Engineering)	—	—	—
Winter 1999	—	—	No Teaching Activity (on administrative leave from the School of Civil and Environmental Engineering)	—	—	—
Fall 1998	3	CE6003	Construction Administration	21 students (15 responses)	C1 (3.6) C2 (4.0) C3 (3.7)	3.9
Fall 1998	3	CE4003	Construction	57 students (44 responses)	C1 (3.6) C2 (3.9) C3 (3.7)	3.7
Fall 1998	3	CE4023	Design and Construction of Building Systems	57 students (44 responses)	C1 (3.6) C2 (3.9) C3 (3.7)	3.7
Fall 1998	1	CE8061	Construction Seminar (no formal teaching; primarily guest speakers and activities)	21 students	Not Applicable	Not Applicable
Spring 1998	3	CE4003	Construction	30 students (25 responses)	C1 (4.0) C2 (4.1)	4.1

					C3 (3.8)	
Spring 1998	3	CE4013	Design of Construction Operations	58 students (32 responses)	C1 (4.1) C2 (4.2) C3 (4.1)	4.3
Spring 1998	1	CE8061	Construction Seminar (no formal teaching; primarily guest speakers and activities)	17 students	Not Applicable	Not Applicable
Winter 1998	3	CE4003	Construction	41 students (28 responses)	C1 (4.1) C2 (4.0) C3 (3.9)	4.0
Winter 1998	2	CE8102	Construction Research Seminar II	20 students (31 responses as reported in Professor Report)	C1 (3.9) C2 (3.2) C3 (3.7)	3.3
Fall 1997	3	CE4003	Construction (67% involvement) (Co-taught with Keith Molenaar, CEE)	48 students (44 responses)	C1 (4.0) C2 (3.9) C3 (3.8)	4.0
Fall 1997	1	CE8061	Construction Seminar (no formal teaching; primarily guest speakers and activities)	21 students	Not Applicable	Not Applicable

Classroom and Laboratory Instruction at GT (continued)

Before Semester Conversion: (continued)

<u>Academic Quarter</u>	<u>Cr.</u>	<u>No.</u>	<u>Title of Course Taught</u>	<u>Enrollment</u>	<u>Core Item Clusters</u>	<u>Teaching Effectiveness</u>
Spring 1997	3	CE4003	Construction	53 students (36 responses)	C1 (3.6) C2 (3.9) C3 (3.7)	3.8
Spring 1997	3	CE4013	Design of Construction Operations	58 students (32 responses)	C1 (3.9) C2 (4.1) C3 (3.9)	4.0
Spring 1997	3	CE4803	Infrastructure Assessment, Rehabilitation, and Renewal (20% involvement) <i>(Co-taught with Glenn Rix, Larry Jacobs, Riyad Aboutaha, Nelson Baker, CEE)</i>	Not Available	c	Not Available
Winter 1997	3	CE4003	Construction	44 students	Not Available	Not Available
Winter 1997	3	CE4043	Basic Planning and Estimating Concepts	39 students (28 responses)	C1 (4.1) C2 (4.0) C3 (4.0)	4.0
Winter 1997	2	CE8102	Construction Research Seminar	21 students (14 responses)	C1 (4.5) C2 (4.4) C3 (4.4)	4.5
Fall 1996	3	CE4003	Construction	49 students (40 responses)	C1 (3.8) C2 (4.3) C3 (3.9)	4.0
Fall 1996	3	CE4023	Design and Construction of Building Systems	46 students (34 responses)	C1 (3.5) C2 (4.0) C3 (3.1)	3.6
Fall 1996	3	CE4823	Introduction to Sustainable	19 students	C1 (4.6)	4.6

			Development	(14 responses)	C2 (4.7) C3 (4.5)	
Spring 1996	3	CE4013	Design of Construction Operations	51 students (42 responses)	C1 (4.0) C2 (4.1) C3 (3.7)	4.0
Spring 1996	3	CE4803	Advanced Tools for Effective Project Management	13 students (4 responses)	C1 (4.2) C2 (4.5) C3 (4.4)	4.5
Winter 1996	3	CE4003	Construction	51 students (32 responses)	C1 (3.9) C2 (3.8) C3 (3.2)	3.8
Winter 1996	3	CE4043	Basic Planning and Estimating Methods	39 students (29 responses)	C1 (3.7) C2 (3.9) C3 (3.6)	3.6
Winter 1996	3	CE4803	Introduction to Sustainable Development	23 students (21 responses)	C1 (4.1) C2 (4.1) C3 (4.1)	4.1
Fall 1995	3	CE4003	Construction (50% involvement)* (Co-taught with Paul Chinowsky, CEE)	53 students (33 responses)	C1 (2.8) C2 (3.0) C3 (2.8)	2.3
Fall 1995	3	CE4023	Design and Construction of Building Systems	59 students (29 responses)	C1 (4.3) C2 (4.4) C3 (3.9)	4.4
Fall 1995	1	CE8101	Construction Seminar (no formal teaching; primarily guest speakers and activities)	21 students	Not Applicable	Not Applicable
Spring 1995	3	CE4083	Advanced Estimating and Planning Methods	29 students (13 responses)	C1 (4.5) C2 (4.3) C3 (4.0)	4.4
Spring 1995	1	CE8061	Construction Seminar (no formal teaching; primarily guest speakers and activities)	27 students	Not Applicable	Not Applicable

Classroom and Laboratory Instruction at GT (continued)

Before Semester Conversion: (continued)

Academic Quarter	Cr.	No.	Title of Course Taught	Enrollment	Core Item Clusters	Teaching Effectiveness
Winter 1995	3	CE4823	Introduction to Sustainable Development (40% involvement)* (Co-taught with Stan Carpenter, Public Policy)	11 students (7 responses)	C1 (3.7) C2 (4.0) C3 (4.0)	3.3
Winter 1995	3	CE4013	Design of Construction Operations	52 students (36 responses)	C1 (3.9) C2 (3.7) C3 (3.5)	3.9
Winter 1995	3	CE4043	Basic Estimating and Planning Methods	36 students (25 responses)	C1 (4.3) C2 (4.4) C3 (4.2)	4.6
Fall 1994	3	CE4023	Design and Construction of Building Systems	33 students (25 responses)	C1 (4.2) C2 (4.0) C3 (3.9)	4.2
Fall 1994	3	CE4033	Construction Equipment and Methods	33 students (18 responses)	C1 (4.5) C2 (4.2) C3 (4.1)	4.7
Spring 1994	3	CE4803	Advanced Planning and Estimating	26 students	C1 (3.5)	3.8

			Methods	(17 responses)	C2 (4.1) C3 (3.8)	
Spring 1994	1	CE8061	Construction Seminar (no formal teaching; primarily guest speakers and activities)	30 students	Not Applicable	Not Applicable
Winter 1994	3	CE4803	Basic Planning and Estimating Methods	43 students (27 responses)	C1 (3.5) C2 (4.2) C3 (3.8)	3.9
Winter 1994	3	CE6013	CE Management I	34 students (22 responses)	C1 (3.5) C2 (4.0) C3 (4.1)	3.5
Winter 1994	2	CE8501	Special Problems–Civil Engineering: CAD Seminar	15 students	Not Applicable	Not Applicable
Fall 1993	3	CE4803	Design and Construction of Building Systems	37 students (33 responses)	C1 (4.4) C2 (4.7) C3 (4.3)	4.6
Summer 1993	3	CE4803	Computer Applications in Construction (later taught as CE4073)	32 students (31 responses)	C1 (4.6) C2 (4.7) C3 (4.3)	4.8

- In addition, involved in general supervision of Special Problems (undergraduate students), M.S. Independent Research Studies (graduate students), and Ph.D. Dissertations every quarter

ATTACHMENT C

LIST OF PAST SPONSORS OF CONTINUING EDUCATION AND PROFESSIONAL DEVELOPMENT PROGRAMS (Alphabetical Listing)

- **Alliance for Construction Excellence (ACE)** at Arizona State University, Tempe, Arizona
- **Asociación Colombiana de Empresas de Ingeniería y Consultoría (AICO)**, Bogotá, Colombia
- **Associação das Empresas do Mercado Imobiliário de Pernambuco (ADEMI)**, Recife, Brazil
- **Business Roundtable (BRT) Local User Councils:**
 - √ *Construction Owners Association of the Tri-State, Inc.*; Cincinnati, Ohio
 - √ *Greater New Orleans Business Roundtable*, through the Department of Civil and Environmental Engineering at the University of New Orleans, New Orleans, Louisiana
 - √ *Northwest Indiana Business Roundtable*, Schererville, Indiana
 - √ *St. Louis Council of Construction Consumers*; St. Louis, Missouri
 - √ *Northwest Construction Consumer Council*, Seattle, Washington
- **Cámara Colombiana de la Industria de la Construcción (CAMACOL)**, Bogotá, Colombia
- **CEMEX**, Monterrey, Mexico
- **Centro de Investigaciones en Vivienda y Construcción (CIVCO)** of the Escuela de Ingeniería en Construcción del Instituto Tecnológico of Costa Rica, San José, Costa Rica
- **Centro de la Investigación y el Desarrollo de la Industria de la Construcción (CIDICO)**, Medellín, Colombia
- **College of Engineering, Universidad Autónoma de Yucatán (UADY)**, Mérida, México
- **Construction Industry Institute (CII)**, Austin, Texas
 - √ *Continuing Education Services (CES) at The University of Texas at Austin*; Austin, Texas; Continuing Education Short Courses (CESC) Host Site No. 1
 - √ *Construction Industry Cooperative Alliance (CICA) at Clemson University*; Clemson, South Carolina; Continuing Education Short Courses (CESC) Host Site No. 2
 - √ *Alliance for Construction Excellence (ACE) at Arizona State University*, Tempe, Arizona; Continuing Education Short Courses (CESC) Host Site No. 3
- **Construction Industry Licensing Board of the Florida Department of Business and Professional Regulation**, Gainesville, Florida
- **Departamento de Ingeniería Civil, Universidad de los Andes**, Bogotá
- **Electric Power Research Institute (EPRI) and Edison Electric Institute (EEI)**, through the Construction Industry Institute (CII), The University of Texas at Austin, Austin, Texas
- **Escola Politécnica de Pernambuco and the Núcleo de Gestão da Qualidade na Construção Civil**, Recife, Brazil
- **FERMCO**, through the Construction Industry Cooperative Alliance (CICA), Clemson University, Clemson, South Carolina
- **Fundación de la Industria de la Construcción (FIC)**, Mexico City, México
- **Georgia Pacific**, through the Construction Industry Cooperative Alliance (CICA), Clemson University, Clemson, South Carolina
- **Instituto de Desarrollo Urbano (IDU)**, Bogotá, Colombia, through the Departamento de Ingeniería Civil, Universidad de los Andes, Bogotá
- **Indiana Department of Transportation (INDOT)**, Indianapolis, Indiana
- **Industria de Trabajos Eléctricos, S.A. de C.V., a division of Siemens Energy & Automation, Inc.**, Juárez, Mexico
- **Ingenieros Civiles Asociados (ICA)**, Mexico City, México
- **National Aeronautics and Space Administration (NASA)**, Washington, D.C.:

- √ *Ames Research Center*, Moffett Field, California
- √ *Goddard Space Flight Center*, Greenbelt, Maryland
- √ *Jet Propulsion Laboratory*, Pasadena, California
- √ *Johnson Space Center*, Houston, Texas
- √ *Kennedy Space Center*, Florida
- √ *Marshall Space Flight Center*, Huntsville, Alabama
- √ *Wallops Flight Facility*, Wallops Island, Virginia
- √ General NASA Training Facility, Hagerstown, Maryland
- √ General NASA Training Contract Facility, Virginia Beach, Virginia
- **Setal Engenharia e Construções S.A., Setal Construções**, Sao Paulo, Brazil
- **Sustainable Facilities and Infrastructure Branch (SFI)** of the Safety, Health, and Environmental Technology Division (SHETD) of the Georgia Tech Research Institute (GTRI) at GT:
 - √ Air Force Space Command, *Peterson AFB*, Colorado Springs, Colorado
 - √ Air Force Reserve Command, *Westover ARB*, Chicopee, Massachusetts (Scheduled – April 2003)
 - √ Air Force Reserve Command, *Youngstown ARB*, Youngstown, Ohio (taught 1 time – March 2003)
 - √ *Center for Disease Control (CDC)*, Atlanta, GA
 - √ *Dobbins Air Reserve Base*, Marietta, Georgia
 - √ *Headquarters Air Force Reserve Command* at Warner Robins Air Force Base, Macon, GA
 - √ *Homestead Air Reserve Station*, Homestead, Florida
 - √ *Robins Air Force Base Environmental Management and Pollution Prevention Program*, Warner Robins, Georgia
 - √ *Warner Robins Air Force Base*, Macon, GA
- **U.S. Steel**, Pittsburgh:
 - √ *Gary Works*, Gary, Indiana
 - √ *Lorain Tubular Company, LLC*, Lorain, Ohio
 - √ *Mon Valley Works – Irvin Plant*, West Mifflin, Pennsylvania