

## **TIMOTHY G. KOTNOUR**

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### **ACADEMIC EXPERIENCE**

**Associate Professor (with Tenure)**, University of Central Florida (UCF), Orlando, FL, 2001-present, Industrial Engineering and Management Systems.

**Director, Management Systems Performance Laboratory**, University of Central Florida (UCF), Orlando, FL, 1998-present, Industrial Engineering and Management Systems.

**Assistant Professor**, University of Central Florida (UCF), Orlando, FL, 1995-2001, Industrial Engineering and Management Systems.

**Research Associate and Senior Graduate Research Assistant**, Virginia Polytechnic and State University (Virginia Tech), Blacksburg, Virginia, 1990-1995. Conducted applied research, training, and technical assistance; and taught courses.

### **EDUCATION**

**Ph.D., Industrial and Systems Engineering, emphasis in Management Systems Engineering**, Virginia Tech, Blacksburg, Virginia, July 1995

*Dissertation:* The Effects of Lessons-Learned Sharing Processes for Organizational Learning on Decision-Making Performance

**M. S., Industrial and Systems Engineering**, Virginia Tech, August 1992

*Thesis:* Design, Development, and Testing of an Automated Knowledge-Acquisition Tool to Aid Problem Solving, Decision Making, and Planning

**B. S., Industrial Engineering**, Bradley University, Peoria, Illinois, May 1990

Minors: Business Administration and Computer Science

### **PROFESSIONAL REGISTRATION**

Registered Professional Engineer-In-Training, State of Illinois, 1990

### **NATIONAL AWARDS & HONORS**

- NASA Public Service Medal, 2001

### **AWARDS & HONORS**

- University Teaching Incentive Program—Teacher Excellence, 1999
- IEMS Excellence in Graduate Teaching, 1998, 1999
- Certificate of Appreciation from the Kennedy Space Center, 1997, 1998
- Certificate of Recognition from the Kennedy Space Center, 1996, 1997
- NASA/ASEE Summer Faculty, 1996, 1997
- Bradley University Academic Hall of Fame, 1990
- Bradley University Department of Industrial Engineering Hall of Fame, 1993
- Scholarships include: Pratt Fellowship, Dwight D. Gardner (IIE National Award), Dean's Merit, Kodak, Illinois State, Central Illinois IIE

## **RESEARCH VISION, PHILOSOPHY, AND INTEREST**

**My Research Vision Is:** To be a recognized leader in the strategic project management and organizational transformation fields through the knowledge I generate, communicate, and apply.

**My Research Philosophy:** I focus my research activities around a collaboration model of university-industry partnerships. Central to the collaboration model are the objectives to create, assimilate, disseminate, and apply knowledge. These objectives are met through technical assistance, training/education, and research. Technical assistance is the problem solving support activity provided by the university on specific problems faced by an organization and can be viewed as the reduction to practice of scientific knowledge. Training/education is the transfer of specific knowledge or “know how” about techniques to improve organizational and job performance. Training/education is the set of activities performed during a formal session with a trainer leading the discussion in a formal workshop setting. Research is the activity of developing new knowledge specific to the organization's problems and the broader academic literature. A description and detailed case analysis of this collaboration model has been published in the *International Journal of Operations and Production Management*.

**My Research Interest:** I have conducted research, provided technical assistance, and conducted training workshops with local and national industry, government agencies, and universities on topics such as strategic management, management systems engineering, organizational learning, performance measurement, and project management.

## RESEARCH GRANTS AND GRANTS PREPARATION

### Research Grant Awards

1. *NASA/ASEE Summer Faculty Program*, NASA/KSC, PI: Kotnour, January, 2004, December, 2006 (with a two-year additional option), \$960,000 (\$1,600,000).
2. *NASA/ASEE Summer Faculty Program*, NASA/KSC, PI: Kotnour, January, 2003, December, 2003, \$352,000.
3. CIO Learning Community (Siemens, Harris, WDW, Boeing, SAIC), PI: Kotnour, Co-PI: Rich, January, 2003, December, 2003, \$75,000 (through UCF ORBIT).
4. Walt Disney World, Strategic Alignment of Systems Engineering and Project Management, PI: Kotnour, June, 2002, December 2002, \$230,000 (through UCF ORBIT).
5. *NASA/ASEE Summer Faculty Program*, NASA/KSC, PI: Kotnour, January, 2002, December, 2002, \$327,000.
6. *Institutionalizing Kennedy Strategic Learning Processes*, NASA/KSC, PI: Kotnour, January, 2001, May, 2002, \$262,000.
7. *Process Alignment*, Graduate Student Researchers Program, NASA/KSC, PI: Kotnour (with B. McIlrath), August, 2001, September, 2003, \$22,000.
8. *Strategic Alignment and Transformation: Strategic Thinking Tools*, NASA/KSC, PI: Kotnour, December, 1999, January, 2001, \$16,500.
9. *Strategic Alignment and Transformation: Process Alignment*, NASA/KSC, PI: Kotnour, December, 1999, January, 2001, \$40,000 (+ \$14,250 UCF match=\$54,250).
10. *Learning in the Project Management Environment*, NASA/KSC, PI: Kotnour, May, 2000, January 2001, \$20,000 (+ 7,125 UCF match=\$27,125).
11. *Strategic Alignment and Transformation: Integrated Management Systems Gap Analysis*, NASA/KSC, PI: Kotnour, Co-PI: Thompson, September, 1999, January, 2000, \$10,000 (+ \$3,563 UCF match=\$13,563)
12. *Strategic Alignment and Transformation: Applied Research Process*, NASA/KSC, PI: Kotnour, January, 2000, January, 2000, \$15,000 (+ \$5,344 UCF match=\$20,344).
13. *Strategic Alignment and Transformation: Strategic Management*, NASA/KSC, PI: Kotnour, July, 1999, May, 2000, \$37,500.
14. *Critical Success Factors for Project Management in a Development Environment*, NASA/KSC, PI: Kotnour, July, 1999, May, 2000, \$16,670.
15. *Best Practices on Process Reengineering*, Lockheed Martin, PI: Kolunda, Co-PIs: Kotnour, Thompson, February, 1999, May, 1999, \$25,000.
16. *Aerospace Research & Educational Needs and Activities in the State of Florida*, NASA/KSC, PI: Kotnour, September 15, 1997, May 15, 1998, \$67,000.
17. *Customer Satisfaction in a Project, Technical Environment*, Graduate Student Researchers Program, NASA/KSC, PI: Kotnour (with J. Matkovich), August, 1998, September, 2001, \$66,000.
18. *Project Management Framework for Organizational Transitions*, NASA/KSC, PI: Kotnour, June 1, 1998, December 15, 1998, \$127,000.
19. *Project Management Framework for Organizational Transitions*, NASA/KSC, PI: Kotnour, September 1, 1997, May 15, 1998, \$56,000.
20. *Project Management Approach to KSC's Transition*, NASA/KSC, PI: Kotnour, June 1, 1997, August 31, 1997, \$20,129.
21. *Project Management Approach to KSC's Transition*, NASA/KSC, PI: Kotnour, October 1, 1996, May 31, 1997, \$22,995.
22. *Orlando Regional Healthcare System/UCF Partnership: Process Improvement/Innovation*, Orlando Regional Healthcare System, PI: Thompson, Co-PIs: Kotnour & Sepulveda, May 1, 1997, May 1, 1998, \$200,000.
23. *Understanding Organizational Change and the Potential Applications of Change Models at KSC*, NASA-ASEE Summer Faculty Fellowships in Aeronautics and Space Research, PI: Kotnour, May 1, 1996, August 1, 1996, \$10,000 (plus an additional \$1,800 for student support).

## Research Grants Under Review

### Proposals Written and Declined

1. *Strategic Project Management*, National Science Foundation/Innovation and Organizational Change Program, PI: Kotnour, \$225,000.
2. *Strategic Alignment and Transformation*, National Science Foundation/Innovation and Organizational Change Program, PI: Kotnour, \$143,800.
3. *Design and Implementation of a Leadership Excellence Achievement Program*, Kotnour, NASA/KSC, PI: Kotnour, October, 1999, \$500,000.
4. *Knowledge Management*, NASA/KSC, PI: Pam McCauley-Bell, Co-PI: Kotnour, \$50,000.
5. *Florida Center for Digital Media*, University of Central Florida, PI: Moshell, et al., January, 1997. Part of team working on the proposal for a multi-disciplinary center for the study of digital media. (The initial planning grant was funded for \$50,000 and the final proposal was declined).
6. *UCF Partnership Models for the Next Century*, Academic Affairs (UCF), PI: Kotnour, \$30,711, January, 1996.
7. *Understanding Process Performance for Convention Center Operations*, Orange County, McCauley-Bell and Kotnour, 1995.
8. *County and Group Processes for the Development of a Fire and Rescue Re-Creation Plan*, McCauley-Bell and Kotnour, Orange County, 1995.
9. *Project Management Process Development*, Lockheed Martin, 1995.

### TRAINING/EDUCATION PARTNERSHIPS

1. *Strategic Project Management: Translating Strategy to IT Projects*, Kotnour, Conducted workshop to over 50 senior managers of high-tech corporations as part of the UCF ORBIT program.
2. *Strategic Project Management*, Kotnour, Conducted seminar to over 70 senior managers of high-tech corporations as part of the UCF ORBIT program.
3. *Transformation Success*, Kotnour, Spaceport Florida Authority, \$25,500.
4. *Integrating Strategic Thinking throughout the Strategic Management Process*, Kotnour, NASA/KSC, \$43,000. Over 350 KSC employees participated in hands on workshop which included defining a strategic direction, developing objectives, and understanding the enablers to strategic alignment.
5. *Strategic Project Management*, Training provided to representatives of King Abdulaziz City for Science and Technology. Completed for Dr. Hosni of the Industrial Engineering and Management Systems Department of UCF.

## **PUBLICATIONS AND OTHER SCHOLARLY ACTIVITY**

### **Refereed Journal Publications**

1. Hacker, M., Kotnour, T. G. and Mallak, L. (2001). "Turning Strategic Plans into Reality through Formalizing Deployment Processes: Three U.S. Federal Government Case Studies," *International Journal of Public Sector Management*.
2. Kotnour, T. G. (2001) "Building Knowledge for and about Large-Scale Organizational Transformations," *International of Operations and Production Management*.
3. Kotnour, T. G. and Kurstedt, H. A. (2000) "Design Parameters of Lessons-Learned Decision Support Systems," *International Journal of Cognitive Ergonomics*.
4. Kotnour, T. G., (2000) "Organizational Learning Practices in the Project Management Environment," *International Journal of Quality and Reliability Management*, vol. 17, no. 4/5, pp. 393-406.
5. Kotnour, T. G., Matkovich, J., Ellison, R. (1999). "Establishing a Change Infrastructure through Teams," *Engineering Management Journal*, vol. 11, no. 3, pp. 25-30.
6. Kotnour, T. G. (1999) "Developing and Evaluating an Organizational Learning Process to Continuously Improve Teaching," *IEEE Transactions on Engineering Education*, vol. 42, no. 4, CD Supplement, paper #15.
7. Kotnour, T. G., (1999) "Improving Projects, Project Management, and Learning Capabilities through Organizational Learning," *Project Management Journal*, vol. 30, no. 2, pp. 32-38.
8. Kotnour, T. G., Barton, S., Jennings, J., & Bridges, R. (1998). "Understanding and Leading Large-Scale Change at the Kennedy Space Center," *Engineering Management Journal*, vol. 10, no. 2, pp. 17-21.

### **Editorial Board/Refereed Review**

1. Kotnour, T. G. and Buckingham (2000) "Initiating University-Industry-Government Partnerships at the NASA/Kennedy Space Center," *Research-Technology Management*.

### **Books Under Development**

1. Strategic Management in Technology Organizations: Observations, Reflections, and Lessons Learned from KSC's Strategic Management Evolution
2. Strategic Project Management
3. Building Knowledge For and About Organizational Change
4. Program Management Approach to Organizational Transformation Management

### **Books and Book Chapters**

1. Kotnour, T. G. "Knowledge Management," *The Technology Management Handbook*, CRC Press and IEEE Press, 1998.

### **Other Refereed Publications**

1. Kotnour, T. G. and Landaeta, R. "Identifying Steps and Approaches for Managing Knowledge in Projects", Industrial Engineering and Management Systems Conference, 2003.
2. Kotnour, T. G. and Camci, A. "Complexity Paradigm and Project Management", Industrial Engineering and Management Systems Conference, 2003.
3. Kotnour, T. G. and Vergopia, C. "Project Management Maturity Models", Industrial Engineering and Management Systems Conference, 2003.
4. Kotnour, T. G. and Landaeta, R. "Developing a Theory of Knowledge Management Across Projects", Industrial Engineering Research Conference 2002.
5. Kotnour, T., Camci, A., "Processes and Tools for Successful Strategic Project Management" Annual IIE Research Conference and Exhibition, Orlando, Florida, May 19-22 2002.
6. Kotnour, T.G. and Lyons, J. L. "Strategic Management Challenges and Lessons Learned from KSC's Transformation", Institute of Industrial Engineers, Orlando, Florida, 2002.
7. Kotnour, T. G. "Achieving Visions through Strategic Project Management", Institute of Industrial Engineers, Orlando, Florida, 2002.
8. Kotnour, T. G. and Hjelm, M. "Learning in Projects," Third European Conference on Organizational Knowledge, Learning, and Capabilities." Greece, March, 2002.

9. Kotnour, T. G., McIlrath, B., and Hjelm, M. "Project Management of Industry-University Partnerships," American Society of Engineering Management, Huntsville, October 2001.
10. Kotnour, T. G. and Starr, S. "Demonstrating and Evaluating an Action Learning Approach to Improving Project Management Competence," American Society of Engineering Management, Huntsville, October 2001.
11. Lueders, K. and Kotnour, T. G. "Integrating Project Manager's Development with the Delivery of Projects," American Society of Engineering Management, Huntsville, October 2001.
12. Kotnour, T. G. "Understanding an Organization's Knowledge Management, Learning, and Project Management Competence," American Society of Engineering Management, Washington D.C., October 2000.
13. Kotnour, T. G. and Britton, K. "The Project Manager as a Knowledge Broker," American Society of Engineering Management, Washington D.C., October 2000.
14. Kotnour, T. G. "Measuring Organizational Learning Practices in the Project Management Environment," American Society of Engineering Management, Virginia Beach, VA, October 1999.
15. Kotnour, T. G. "Understanding Industry-Government-University Technology Development Partnership Needs in the Aviation/Aerospace Industry," Portland International Conference of Management of Engineering and Technology, July, 1999.
16. Kotnour, T. G., "Building Knowledge for and About Large Scale Organizational Transformations," American Society of Engineering Management, Virginia Beach, VA, October 1998.
17. Sturek, F. and Kotnour, T. "Successfully Applying Strategic Management," American Society of Engineering Management, Virginia Beach, VA, October 1998.
18. Kotnour, T. G. "Organizational Learning in a Project Environment," American Society of Engineering Management, Virginia Beach, VA, October 1997.
19. Kotnour, T. G., Orr, C., Spaulding, J., and Guidi, J., "Determining the Benefit of Knowledge Management Activities", (Invited Session) 1997 IEEE International Conference on Systems, Man, Cybernetics (October 12-15, 1997), Orlando, Florida.
20. Kotnour, T. G. and Barton, S. "The Development of an Organizational Transition Framework: The Application of Change Models to the Kennedy Space Center," Portland International Conference of Management of Engineering and Technology, July, 1997.
21. Barton, S. and Kotnour, T. G. "Engaging Researchers to Help Organizational Planning: Lessons Learned from KSC's Ongoing Transition Management Project," Portland International Conference of Management of Engineering and Technology, July, 1997.
22. Kotnour, T. G. "Determining the Benefits of Knowledge Management Activities," IEEE International Conference on Systems, Man, & Cybernetics, Orlando, FL, Oct., 1997.
23. Kotnour, T. G., "Supporting Organizational Learning in a Manufacturing Environment," Industrial Engineering Research Conference, Minneapolis, MN, May 1996.
24. Taylor, L., Kotnour, T. G., Smibert, A., Wight, E., Earle, S., and Daub, J., "Determining Organizational Learning Performance: Evaluating the U. S. Department of Energy's (DOE) National Technology Information Exchange Workshops," Waste Management '95 Symposium, March, 1995.
25. Kotnour, T. G., Coleman, J. A., Batrouny, G. B., Shaw, M., and Kurstedt, H. A., "Analysis of Stakeholder Concerns for the Environmental Restoration and Waste Management Program," Waste Management '94 Symposium, February, 1994.

#### **Conference Chairs and Invited Participation**

1. Invited Presenter, "Publishing in EMJ", ASEM, October 2002.
2. Invite Presenter, "Professional Roadmaps for Professors", ASEM, October, 2002.
3. Session Chair, American Society of Engineering Management Conference, October, 2000.
4. Panel Chair, NASA – Kennedy Space Center Partners in Education and Research Conference, October, 1999.
5. Session Chair, American Society of Engineering Management Conference, October, 1999.
6. Conference Co-Chair, NASA – Kennedy Space Center Partners in Education and Research Conference, October, 1999.
7. Session Chair, Portland International Conference of Management of Engineering and Technology, July, 1999.
8. Session Organizer, 36<sup>th</sup> Annual Space Congress, Cocoa Beach, FL, April 1999.

9. Conference Organizer, NASA – Kennedy Space Center Partners in Education and Research Conference, October, 1998.
10. Panel Member, “Building Industry/University Partnerships”, Kennedy Space Center Partners in Education and Research Conference, October, 1998.
11. Session Chair, NASA – Kennedy Space Center Partners in Education and Research Conference, October, 1998.
12. Session Organizer, 35<sup>th</sup> Annual Space Congress, Cocoa Beach, FL, April 1998.
13. Session Chair, American Society of Engineering Management Conference, October, 1997.
14. Session Chair, Portland International Conference of Management of Engineering and Technology, July, 1997.
15. Invited presentation, Kotnour, T. G. “A Project Management Approach to Organizational Transitions,” Industrial Engineering Research Conference, Miami, FL, May 1997.
16. Session Chair, Industrial Engineering Research Conference, Minneapolis, MN, May 1996.

### **Papers Presented at Scholarly Meetings and Published in Proceedings**

1. Kotnour, T. G. and Landaeta, R. “Identifying Steps and Approaches for Managing Knowledge in Projects”, Industrial Engineering and Management Systems Conference, 2003.
2. Kotnour, T. G. and Camci, A. “Complexity Paradigm and Project Management”, Industrial Engineering and Management Systems Conference, 2003.
3. Kotnour, T. G. and Vergopia, C. “Project Management Maturity Models”, Industrial Engineering and Management Systems Conference, 2003.
4. Kotnour, T. G. and Landaeta, R. “Developing a Theory of Knowledge Management Across Projects”, Industrial Engineering Research Conference 2002.
5. Kotnour, T., Camci, A., “Processes and Tools for Successful Strategic Project Management” Annual IIE Research Conference and Exhibition, Orlando, Florida, May 19-22 2002.
6. Kotnour, T.G. and Lyons, J. L. “Strategic Management Challenges and Lessons Learned from KSC’s Transformation”, Institute of Industrial Engineers, Orlando, Florida, 2002.
7. Kotnour, T. G. “Achieving Visions through Strategic Project Management”, Institute of Industrial Engineers, Orlando, Florida, 2002.
8. Nunez, J. and Kotnour, T. G. “Knowledge Management in the Internal Space Station,” Space Congress, April 2002.
9. Kotnour, T.G. and Hjelm, M. “Understanding Leadership Support for Learning Within Project Teams”, The International Conference on Computers and Industrial Engineering and The International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, Florida, March 2001.
10. Kotnour, T.G. and McIlrath, B. “Process Alignment to Meet Strategic Goals”, The International Conference on Computers and Industrial Engineering and The International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, Florida, March 2001.
11. Kotnour, T.G. and Lenzini, J. “Understanding Supply Chain Management of a Spaceport”, The International Conference on Computers and Industrial Engineering and The International Conference on Industry, Engineering, and Management Systems, Cocoa Beach, Florida, March 2001.
12. Kotnour, T. G., and Lyons, J. “Strategic Management Thinking For Driving Large-Scale Transformation: Processes and Lessons Learned From The Kennedy Space Center”, Industrial Engineering Research Conference, Phoenix, Arizona, May 1999.
13. Kotnour, T. G. “Measuring Organizational Alignment in a Project Environment”, Industrial Engineering Research Conference, Phoenix, Arizona, May 1999.
14. Kotnour, T. G., Matkovich, J., Barton, S., and Jennings, J. “The Engineering of Strategic Management Systems,” Industrial Engineering Research Conference, Canada, May 1998.
15. Kotnour, T. G and Cheema, L. “Measuring Organizational Learning in a Project Environment”, Industrial Engineering Research Conference, Canada, May 1998.
16. Kotnour, T. G., and Cheema, L. “Defining Partnership Needs for Florida’s Aviation/Aerospace Industry and the State Educational System”, 35<sup>th</sup> Annual Space Congress, Cocoa Beach, FL, April 1998.
17. Baesler, F. F. , Sepúlveda, J. A., Thompson, W. , and Kotnour, T. G., “Working with healthcare practitioners to improve hospital operations with simulation,” Arena Sphere '98 Conference.

18. Kotnour, T. G. "A Project Management Approach to Organizational Transitions," Industrial Engineering Research Conference, Miami, FL, May 1997.
19. Kotnour, T. G. and Proctor, M. "Processes and Tools to Support Knowledge Management in a Virtual Organization," Proceedings of IEEE Engineering Management Society Conference, October, 1996.
20. Kotnour, T. G. and Kurstedt, H. A., "A Data-to-Information Chain of Management Tools for Organizational Learning," Southeastern Chapter of The Institute of Management Sciences, October, 1994.
21. Kotnour, T. G., Koball, B., Batrouny, G. B., Shaw, M., and Harvey, A., "Gleaning Information from Open-Ended Data," Southeastern Chapter of The Institute of Management Sciences, October, 1993.
22. Williams, K. E., and Kotnour, T. G., "An Electronic Performance Support System for Organizational Learning," Computers and Industrial Engineering, 25(1-4), pp. 93-97, 1993.
23. Williams, K. E., and Kotnour, T. G., "A Knowledge Center for Group Problem Solving and Formulating Planned Strategy," Southeastern Chapter of The Institute of Management Sciences, October, 1992.
24. Williams, K. E., Deighan, J., and Kotnour, T. G., "Knowledge Acquisition for Group Problem Solving Systems," Computers and Industrial Engineering, 23(1-4), pp. 459-462, 1992.
25. Kotnour, T. G., and Williams, K. E., "Automated Knowledge Acquisition for Second Generation Knowledge Base Systems: A Conceptual Analysis and Taxonomy," Southeastern Chapter of The Institute of Management Sciences, October, 1991.

#### **Technical Reports Submitted to Research Sponsors**

1. Kotnour, T. G. "Integrating Strategic Thinking Throughout the KSC Strategic Management Process: Participant Data and Observations," August, 1999.
2. Kotnour, T. G. "Integrating Strategic Thinking Throughout the KSC Strategic Management Process: Interpretations and Recommendations," August, 1999.
3. Kotnour, T. G. "A Strategic Framework for Evaluating KSC University Programs," July, 1999.
4. Kotnour, T. G., Wanielista, M., Cheema, L., and Buckingham, G. "Partnership Issues for Florida's Aviation/Aerospace Industry and Education System," April, 1998.
5. Kotnour, T. G., Thompson, W., Sepulveda, J. "Implementing Lessons Learned in the Orlando Regional Healthcare System," 1998.
6. Kotnour, T. G. "Engineering Strategic Management at the Kennedy Space Center," NASA/ASEE Technical Report, 1997.
7. Kotnour, T. G. "Project Management Framework to Organizational Transitions," NASA/ASEE Technical Report, 1996.
8. Management Systems Laboratories, "Why Do People Perform Unsafe Behaviors? A Review of the Scientific Literature Concerning Underlying Factors Affecting the Performance of Unsafe Acts in the Workplace," project report for research grant (Westinghouse Hanford Corporation, MSJ-SRV-287290), March, 1994.
9. Management Systems Laboratories, "Strategic Planning Comparison Study," project report for research grant (U. S. Department of Energy's Office of Environmental Restoration and Waste Management, Grant No. DE-FG02-88DP48058), October, 1993.
10. Management Systems Laboratories, "EM-30 Stakeholder Analysis," project report for research grant (U. S. Department of Energy's Office of Environmental Restoration and Waste Management, Grant No. DE-FG02-88DP48058), June, 1993.
11. Williams, K. E., and Kotnour, T. G., "A Review of Knowledge-Acquisition Methods," Office of Naval Research Technical Report (Contract No. N00014-91-J-1500), 1993.
12. Kotnour, T. G., "Intelligent Management Tool to Aid Problem Solving, Decision Making, and Planning," unpublished working paper for research grant (U. S. Department of Energy's Office of New Production Reactors, Special Research Grant No. DE-FG02-91NP00119), January, 1992.

### **Professional Presentations**

1. "Strategic Program and Management", presented to IEMS Advisory Board, Spring 2003.
2. "Transformation Management", presented to Boeing/NMA, Spring 2001.
3. "Leadership and Visioning," presented to UCF College of Engineering's Dean's Leadership Team, Fall, 1999.
4. "Visioning for UCF Excellence in Engineering Education 2000," presented to UCF College of Engineering's Dean's Leadership Society, Fall, 1998.
5. "Management Systems Analysis to Understand Logistics Management Tools," presented to KSC Logistics, Fall, 1998.
6. "Assessing Qualitative Assignments and Exams to Ensure Objectivity" for the College of Engineering, 1998.
7. "Partnership Issues between Florida's Aviation/Aerospace Industry and Educational System", presented to the NASA/KSC BOR working group, April 27, 1998.
8. "Understanding the Relationship between Florida's Aviation/Aerospace Industry and Educational System", presented to the Florida Aviation/Aerospace Alliance Task Force, April 21, 1998.
9. "The (Mis)Use of Lessons Learned in Project Management: An Organizational Learning Framework for Project Environments" to the local chapter of the Project Management Institute on April 11, 1997.
10. "A Project Management Framework to Kennedy Space Center's Transition" to Brevard Community College/TQM Information Exchange working group on January 23, 1997.
11. "The Industrial Engineering of Strategic Management Systems," UCF/IEMS, Research Exchange Workshops, March, 20, 1998/
12. "Understanding Organizational Learning in a Project Environment," UCF/IEMS Research Exchange Workshops, April 11, 1997.
13. "Integrating Research and Organizational Problem Solving: The Development of a Project Management Approach to KSC's Change", UCF/IEMS, Research Exchange Workshops, September, 20, 1996.
14. "Research Issues in Organizational Learning," UCF/IEMS, Research Exchange Workshop, Fall, 1995.

### **Other Publications**

1. Kotnour, T. G. "Understanding and Leading Large-Scale Organizational Change," NASA-KSC Partners in Education and Research, October, 1998.
2. Kotnour, T. G. "Aerospace Research and Educational Needs and Activities in the State of Florida," NASA-KSC Partners in Education and Research, October, 1998.
3. Matkovich, J. and Kotnour, T. G. "Effective Organizational Performance Tools Used in the Aviation and Aerospace Industries," NASA-KSC Partners in Education and Research, October, 1998.
4. Kotnour, T. G. and Lyons, S. "Strategic Management to Drive Change", NASA Technical Briefs, 1998.
5. Kotnour, T. G. and Matkovich, J. "Customer Satisfaction in a Project, Technical Organization," NASA Technical Briefs, 1998.
6. Kotnour, T. G. and Orr, C. "Organizational Learning Process to Support the NASA Test Director," NASA Technical Briefs, 1997.
7. Kotnour, T. G. and Barton, S. "Organizational Change Models", NASA Technical Briefs, 1997.

### **Work In Progress**

A complete publication plan is available upon request.

## **Dissertations Completed**

### **Supervised**

Rafael Landeata, Winter 2003, "Knowledge Management Across Projects."

### **Committee Member**

Gregg Buckingham, Spring 2002, "Effects of Mentoring on Science Education."

Labiche Ferra

Linda Welsh, Summer, 1998, "Features of Total Quality Management Training and Their Relationships to Effective TQM Implementation in K-12 Educational Organizations."

Hani Aburas, "Design, Simulation, and Optimization of a Fully Dynamic Process Control Procedure."

## **Theses Completed**

### **Supervised**

Bonnie McIlrath, Summer 2002, "Processes and Tools for Organizational Alignment."

Mirja Hjelm, Summer 2002, "Knowledge Management in the Project Management Environment."

Jennifer Off, Summer 2000, "Deploying an Integrated Management System."

Josh Lenzini, Summer 2000, "Supply Chain Management of Spaceports."

Frank D. Sturek, August, 1998, "How Does a Traditionally Managed Organization Successfully Apply Strategic Management?"

Robert Gaucher, August, 1998, "The Effect of Lessons Learned on Organizational Learning and Performance."

### **Committee Member**

Scott Sandback

Bill Harris

Raymond K. Compton, Spring, 2000, "A Conceptual Model of PC-Based Simulation in Support of Military Training."

Lesley Cheema, April, 1999, "A Methodology for Sampling Reduction in High-Volume Manufacturing."

Wayne Stilwell, Summer, 1998, "Organizational Learning in a Novel Environment."

Michael James Lipinski, Spring, 1998, "Virtual Simulation Effectiveness for the Training of Teamwork."

## **Dissertations in Process**

### **Supervising**

Alper Camci, "Strategic Project Formulation Methodologies."

Jose Nunez, "Knowledge Management in International Projects: The Case of the International Space Station."

Rey Diaz, "Integrated Management System Evolutions."

Catherine Vergopia, "Project Management Maturity Models"

Howard Mikytuck, "An Outsourcing Framework"

### **Committee Member**

## **Theses in Process**

### **Supervising**

Kent Kimmons, "Learning in Change Efforts."

### **Committee Member**

## **Undergraduate Honors Theses**

## **Other Activities to Support Graduate Students**

Conducted and conducting independent study courses with graduate students.

Member of departmental M.S. oral comprehensive exam defenses.

## TEACHING VISION AND PHILOSOPHY

**My Teaching Vision:** To be recognized by my students as having made a difference in their lives through my teaching and thereby being recognized by my peers as a premier teacher.

In recognition of the teaching results, the University awarded me with the university-wide Teaching Incentive Program (TIP) award.

**My Teaching Philosophy:** Teaching in the College of Engineering's Industrial Engineering and Management System Department (IEMS), I aim to teach students to be professional practicing engineers who apply the fundamental engineering process to all endeavors. My teaching philosophy is for the professor to proactively model behavior consistent with an ethical, practicing engineer; and for the students to be actively engaged in learning, applying, and creating knowledge. I demonstrate this philosophy by continuously improving the course with feedback from students, peers, and industry and including real-world examples. I use a plan-do-study-act (PDSA) teaching process. The description and evaluation of this teaching approach was published in *IEEE Transactions on Engineering Education*. Each course has at least 12 hours of lecture directly attributable to recent research work completed with industry. I engage students in group knowledge creation using the cooperative learning concepts. To develop conceptual, qualitative, synthesis, and communication skills, I have the students complete take-home essay exams, research papers, and group projects. To provide meaningful evaluation and feedback, I personally grade all of these projects and examinations.

Consistent with my teaching philosophy, I have attended short courses and seminars to build my skills, for example, 1) Assessing Student Outcomes, Center for Education Development, 1997; 2) 1997 NASA Educator's Retreat, 1997; 3) Cooperative Learning, Southeastern Center for Cooperative Learning, 1996-97; 4) Series of interactive instruction classes, UCF's ITV, 1997; and 5) Distance Education in the Engineering Core at the University of Illinois, UCF, 1996.

I support the special course requirements for the teaching assignments to support the graduate programs within the Industrial Engineering and Management Systems Department. The graduate program focuses on practicing engineers who are working full time and returning to school to upgrade their skills. The implications for teaching the adult learners include students: needing to develop the ability to apply the engineering process to the engineering management process; needing to develop qualitative, conceptual, synthesis skills in addition to the quantitative analytic; taking classes for the first time in some years; taking classes at night after they complete their work day; and missing lectures due to work and travel requirements. My special teaching requirements based on these implications include: 1) teaching classes at night after the students complete their work day; 2) conducting classes at off-campus sites (e.g., the Kennedy Space Center, STRICOM, Lockheed Martin, Fed-Ex, Cirent Semiconductor) or via FEEDS; and 3) developing Powerpoint handouts for each lecture to focus the in class period on discussions of how to apply the concepts to the workplace and to facilitate FEEDS and student travel requirements.

## **TEACHING ACTIVITIES**

### **Courses Taught**

University of Central Florida

#### **Graduate**

Project Engineering  
Management Information Systems  
Engineering Management

These courses were taught on-campus in the FEEDS system (live and videotaped sessions) and off-campus at the Kennedy Space Center, U.S. Army STRICOM, Lockheed Martin Astronautics, Cilent Semi-Conductor, and Fed-Ex as part of the Engineering Management program. Both an organizational learning and cooperative learning approach were used in these courses. The use of the organizational learning approach was featured in the Florida Center for Teaching and Learning's newsletter. An internet home page was developed for the Engineering Management course conducted on the FEEDS system.

#### **Undergraduate**

Conducted 4 sessions for EGN 1006, the introductory engineering course.

Virginia Tech

Prepared and conducted class lectures at the undergraduate and graduate levels in Management Systems Engineering and Research Methods.

## **SERVICE VISION AND PHILOSOPHY**

**My Service Vision:** To be recognized as a consummate professional who enhances the profession and supports the growth and achievement in the profession of others.

**My Service Philosophy:** My philosophy in the service component of the academic profession is to be an active and contributing member of the University and the broader profession. Part of the responsibility of a professional is to contribute to making the profession a better profession.

## **SERVICE ACTIVITIES**

### **National Service**

1. Editor of the *Engineering Management Journal*, 2001-Present.
2. Committee Chair, American Society of Engineering Management, Corporate Affiliate Program.

### **University and Departmental Committee Assignments**

1. IEMS Faculty Search Committee, 2003.
2. IEMS Chair Search, 2001.
3. IEMS Research Committee, 2001.
4. University Faculty Center for Teaching and Learning Director Search, 2001.
5. Departmental ABET/Assessment Coordinator, responsible for developing/implementing documentation and assessment for ABET/SACS reviews, 2000--2002.
6. Departmental Assessment Coordinator, responsible for developing/implementing assessment for ABET/SACS reviews, 1999-2000.
7. Engineering Management Working Group, Chair of committee to address strategic issues in the UCF Engineering Management Program, 1999-Present.
8. University Library Committee, 1998-1999.
9. University representative and lead member for the Interagency Agreement with NASA as a result of an agreement between NASA/KSC and the Florida Board of Regents, State University System, 1997-1998.
10. Departmental Graduate Curriculum Committee, 1998-1999.
11. Departmental Faculty Search Committee, 1998.
12. Departmental Research Committee, 1997-98.
13. Departmental Student Advisory Board Committee, 1997-98.
14. Departmental Awards Committee, 1995-1996.
15. Departmental Scribe, 1995-1997.
16. Florida Center for Teaching and Learning, worked to bring in an outside speaker on quality in the classroom.
17. Minority Student Mentor.
18. Founding faculty advisor the student chapter of the Project Management Institute. This chapter was developed in partnership with the senior local chapter and AT&T.
19. University library representative for the IEMS Department, 1996-1999.

### **Professional Association Memberships and Offices Held**

1. American Society of Engineering Management, member, 1997 - Present.
  - Editor of the *Engineering Management Journal*, 2001-Present.
  - Chair, Corporate Affiliates Working Group, 2001-Present.
  - Session chair for conference, October 1997, 1999, 2000.
2. Institute of Industrial Engineers, member, 1987 - Present.
  - Session chair for Industrial Engineering Research Conference, May 1996.
  - Reviewed three papers for the Industrial Engineering Research Conference, May 1996.
  - Reviewed one paper for the “Computers and Industrial Engineering Journal”, 1996.
  - Chairman, 1990 IIE Midwest Regional Student Conference, 1989-90, Directed and organized conference hosted at Bradley University involving 13 universities and over 170 participants, industry sponsored 70%.
  - President, Institute of Industrial Engineers, Bradley University Chapter, 1988.
3. Project Management Institute, member, 1995 - Present.
  - Vice-President of Membership for local chapter.
  - Founding faculty advisor for the student chapter at UCF.
  - Co-sponsor of teleconference “Achieving Behavioral Excellence in Project Management” teleconference on March 21, 1996 with the Central Florida Chapter of the Project Management Institute (PMI). My role included coordinating activities with the Division of Continuing Education and the PMI chapter, conducting marketing of the program, and facilitating group discussions before and after the teleconference with participants.
4. Institute of Electrical and Electronics Engineers-Engineering Management Society, member, 1994-Present.
  - Organizing committee of the IEEE International Conference on Systems, Man, and Cybernetics.
  - Wrote a research article (“Improving Project Performance through Organizational Learning”) for the Canaveral Section’s newsletter.
5. Institute for Operations Research and the Management Sciences, member, 1992-Present.
6. American Society of Engineering Education, member, 1995-Present.
7. Served on the local committee for the 1998 International Association for Management of Technology conference.

### **Community Service Activities**

1. Community Service Group. Participated in week-long community service project conducting construction and interaction with youth, 1994.
2. Floyd County School District. Designed and developed transition services with Floyd County Special Education Coordinator, 1992.
3. Peoria Police Department. Analyzed and recommended scheduling process and manpower requirements, annual savings of \$100,000, 1989.

## PROFESSIONAL EXPERIENCES

- **NASA/KSC**, Led process development and facilitation for national consortium for technology planning of ASTWG/ARTWG.
- **Dynacs Engineering, Company, Inc.**, Led and conducted improvement of the organization's project management competence, Summer, 2000.
- **U.S. Air Force's and Kennedy Space Center's Joint Performance Management Office**, Conducted strategic "search conference," November, 1999.
- **Lawrence Erlbaum Associates**, Reviewed textbook on "Scenario-Based Design of Software Systems: The State of the Art," 2000.
- **U.S. Air Force**, Conducted applied training in the development of measurement systems and processes, September, 1999.
- **Kennedy Space Center**, Working with senior management at the Kennedy Space Center to develop a project management approach to organizational transformations. The work includes conducting applied research, designing and leading senior management retreats, developing educational packages, designing a strategic management process, and developing a strategic plan, May, 1996-present.
- **Kodak**, Conducted interactive workshop on team building, February, 1998.
- **Poulsen Lighting, Inc.**, Conducted workshop on strategic management, April 1998.
- **Qualex Company**, Conducted interactive workshop on team building, August, 1996.
- **Division of Continuing Education at Virginia Tech**, Led process reengineering efforts and procured an electronic group facilitation tool, 1995
- **Automotive Industries**, Prepared and conducted first-line supervisor training in the "Management Process" at Automotive Industries, 1994-1995
- **Division of Continuing Education at Virginia Tech**, Constructed a strategic business plan (including financial and resource allocation models of operations and market analysis), 1994.
- **Management Systems Laboratories**, Prepared a workshop on TQM for the Department of Energy and supported strategic planning and measurement efforts, 1994.
- **Management Systems Laboratories**, Developed a survey to evaluate the Technology Information Exchange workshop for the Department of Energy, 1994
- **Management Systems Laboratories**, Developed and presented a workshop on "Risk Perceptions and Unsafe Behavior" for Westinghouse Hanford Corp., 1994.
- **Management Systems Laboratories**, Directed research (using qualitative research methods) on strategic and environmental planning for government offices for the Office of Environmental Restoration and Waste Management in the Department of Energy. Worked with senior managers from Fortune 100 organizations, 1993.
- **Management Systems Laboratories**, Directed research and systems analysis of government office stakeholders for the Office of Environmental Restoration and Waste Management in the Department of Energy using qualitative research methods, 1993.
- **Radford Community Hospital**, Provided support to Chief Operating Officer on strategic project planning of complete organizational process reengineering in the context of the "patient-focused care" method, 1992-1993.
- **Management Systems Laboratories**, Conducted research on management and automated knowledge-acquisition tools to facilitate group problem solving, strategic planning, and decision support for the Office of New Production Reactors in the Department of Energy and the Office of Naval Research, 1990-1992.
- **Eli Lilly & Co.**, Analyzed, standardized, and improved departmental processes, determined data needs, and defined requirements for an international environmental affairs management information system, 1989.
- **Andrew Corporation**, Quality control inspector responsible for evaluating products and cataloging results of general inspection for government purchases, 1988.
- **Marian Realty, Inc.**, Conducted business process improvement including the analysis and standardization of operations. Designed and implemented a computerized real estate management system, 1987 & 1992.

## **ADDITIONAL TRAINING**

- Scenario Planning, Global Business Network, 2000
- Educational Outcomes Assessment, SUCCEED, 1999
- Assessing Student Outcomes, Center for Education Development, 1997
- 1997 NASA Educator's Retreat, 1997
- Paradigm for Success: Enabling Strategies for Obtaining Federal Research Dollars, 1997
- Cooperative Learning, Southeastern Center for Cooperative Learning, 1996-97
- Distance Education in the Engineering Core at the University of Illinois, UCF, 1996
- Fundamentals of Kaizen, Ford Motor Company, 1994
- Continuous Process Improvement Workshop, Management Systems Laboratories, 1993