

Robert James Rabb

The Citadel, School of Engineering, 171 Moultrie Street, Charleston, SC 29409
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EXECUTIVE SUMMARY

- Versatile professional with 25+ years of successful, extensive management and engineering experience in program leadership, budget management, quality improvement, workforce development and academia
- Record of achievement as leader, mentor, self-starter and collaborator known for delivering beyond requirements
- Outstanding record of international and national publications and presentations

EDUCATION

Ph.D.	Mechanical Engineering, University of Texas, Austin, Texas	2007
M.S.E.	Mechanical Engineering, University of Texas, Austin, Texas	1998
B.S.	Mechanical Engineering, USMA, West Point, New York	1988

CERTIFICATION

Professional Engineer, Missouri, 2002, (License PE-2002016717)	2002
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APPOINTMENTS

The Citadel, School of Engineering	
Associate Professor	2014
United States Military Academy, Department of Civil and Mechanical Engineering	
Associate Professor	2010
Assistant Professor	2000-2001, 2007-2009
Instructor	1998-2000

CURRENT POSITION

Associate Professor, The Citadel, Charleston, SC

Mentor, advise, teach, and evaluate college level students in engineering disciplines

- Oversee and direct curriculum, course design, and laboratory support for the undergraduate mechanical engineering program
- Implement assessment systems for the mechanical engineering program in accordance with ABET guidelines.
- Coordinate with other departments and activities concerning course development, prerequisites, corequisites, and resources
- Develop the graduate level mechanical engineering program and advise potential students pursuing graduate degrees and advanced certifications
- Advise all transfer and veteran students in addition to traditional cadet students
- Advocate for outreach activities to include K-12, E-Week, Stem Fest
- Assess mechanical engineering faculty teaching, provide constructive feedback
- Coordinate facilities and resources for mechanical engineering courses, labs, and projects
- Initiate and coordinate student internships
- Host transfer student visits and coordinate with local community college for student advising

I. TEACHING

Course Instruction:

- Mechatronics with Lab
- Modeling and Analysis of Dynamic Systems with Lab
- Computer Applications with Lab
- Measurement and Instrumentation with Lab
- Engineering Computer Applications
- Introduction to Mechanical Engineering
- Fluid Dynamics
- Circuits Lab
- Materials Lab
- Applications of Quality Management (graduate course)
- Dynamic Modeling and Control
- Critical Scientific Reasoning
- Mechanical System Design,
- Mechanical Engineering Design
- Advanced Independent Study

Course Development

- Mechatronics with Lab
- Modeling and Analysis of Dynamic Systems with Lab
- Measurement and Instrumentation with Lab
- Engineering Computer Applications
- Introduction to Mechanical Engineering

Program Development

Mechanical Engineering, MS, 2016 - present
Mechanical Engineering, undergraduate, 2014 - present
Mechatronics Sequence, 2008-2010
Mechanical Engineering Program Committee, 2008-2009
Mechanical Engineering Core Course Committee, 2001

Administration

Program Director, Mechanical Engineering (2014 – present):

- Coordinate with 5 faculty members and 19 courses
- Develop assessment and reviews. Analyze course and program data, prepare written products for a variety of audiences, and engage in outreach activities and scholarly publications
- Coordinate with other faculty to adapt and apply methods and techniques of related engineering disciplines various classroom and research projects, foster inter-department collaboration
- Resource and provide research and professional growth opportunities with external organizations (industry, academia, and government)
- Lead the selection and hiring of new faculty members

Head of Mechanical Engineering Design Section (2008): oversaw and directed curriculum and courses

- Supervised 10 faculty members and 13 courses as the Mechanical Engineering Design Group Director; directed separate courses and taught four different courses while assessing and developing the curriculum with no deficiencies during ABET accreditation

- Developed plans for education research, assessment, and reviews. Analyzed course and program data, prepared written products for a variety of audiences, and engaged in outreach activities and scholarly publications
- Mentored subordinates to adapt and apply methods and techniques of related engineering disciplines (mechanical, electrical, and chemical) for various classroom and research projects, fostering inter-department collaboration
- Resourced and provided research and professional growth opportunities resulting in 50+ students working on 35 projects each summer with external organizations (industry, academia, and government)
- Coordinated and collaborated routinely with other departments and campus administration to share resources and facilities

Department Executive Officer: facilitated classroom, instructor, and testing requirements for 40 instructors and their courses annually

Professional Development

- Master Teacher Program Graduate, United States Military Academy, West Point, NY, 2009
- Teaching Engineering to Teams – Improving Team Performance Workshop, Dallas, TX, 1999
- Instructor Summer Workshop, United States Military Academy, West Point, NY, 1998

Professional Presentations

- Project Management Fundamentals, Ministry of Energy and Water, Kabul, Afghanistan, 2011
- Hydroelectric Power and Transmission, Ministry of Energy and Water, Kabul, Afghanistan, 2011
- Summer Leadership Seminar, for high school students, United States Military Academy, West Point, New York, 2008 and 2009
- New Instructor Training, various presentations, United States Military Academy, West Point, New York, 2008-2009
- “Mesomechanical Modeling of Impact Dynamics in Kevlar Fabrics,” Professional Development Series, United States Military Academy, West Point, New York 2007
- Teaching Teachers to Teach Engineering (T4E) Workshop, United States Military Academy, West Point, New York, 1998

II. PROFESSIONAL EXPERIENCE

U.S. Army Corps of Engineers, various locations

Military Officer and Department of the Army Civilian, May 1988 – December 2013

Strategic leader with strong general management, program leadership and operational experience gained during 12 assignments in diverse settings, including the international policy arena, academia and operational environments

- Managed all strategic planning, operational, administrative, logistics, information management, fiduciary, workforce and reporting requirements in large and diverse organizations. Responsible for design, technical services and project management. Directed training and operations activities for more than 500 personnel and supervised 15 mid-level managers
- Resourced 250 instructors and coordinated facilities, engineering, and construction skills training for nearly 14,000 Soldiers, Sailors, Airmen, and Marines in three states
- Supervised, planned and assigned work for direct reports, evaluated their accomplishments and performance, developed performance standards, counseled on work and administrative matters, made selections for promotion and non-supervisory duty positions

- Maintained awareness of both internal and external customer requirements in order to deliver professional technical services and to ensure compliance with Host Nation and International Standards in mechanical and fire protection engineering

Additional Experience

Strategic Partner and Staff Engineer, January 2011 – December 2011

Advised Afghan Ministry of Energy and Water staff on International Security and Assistance Forces (ISAF) mission priorities, operational concepts and on engineer and development specific issues, with correspondence and recommendations elevated to Afghan presidential level. Directly assisted in capacity development within the Ministry

- Prepared the Afghan National Energy Supply Program for the Ministry of Energy and Water with their planning staff, resulting in \$9 billion of energy projects, tripling the domestic electricity capacity in Afghanistan (to 3000 MW) over the next decade
- Mentored Afghan engineers at the Ministry of Energy and Water to investigate and apply engineering analysis principles and practices regarding gas, hydroelectric, solar, and other alternative energy development
- Provided expert instruction and used the Project Management Institute (PMI) Standards and the Project Management Body of Knowledge (PMBOK) during Capacity Development and Project Management Courses at the Ministry, resulting in standard techniques and procedures for the staff responsible for constructing five dams valued at over \$290M
- Briefed and defended the US government interests, policies, and programs to other US development organizations, Afghan officials, and international organizations. Represented organization at technical meetings and briefings
- Coordinated with US and international agencies to plan and budget energy projects worth \$450M
- Integrated facilities master planning valued at more than \$225 million, civil humanitarian construction projects valued at \$43 million, and military engineer operations with Coalition Forces, Afghan Government Agencies, and humanitarian organizations

III. RESEARCH

Interests

- Power regeneration, specifically in powering biomimetic prosthetic devices
- Modeling dynamic systems
- Engineering education

Publications

Refereed Journal Articles

- **Rabb, R.** and Fahrenthold, E. (2012), “Reply by the Authors to E.D. Wetzel and N.J. Wagner,” *Journal of Aircraft*, Vol. 49, No 2, 673-675.
- **Rabb, R.** and Fahrenthold, E. (2011), “Simulation of Large Fragment Impacts on Shear-Thickening Fluid Kevlar Fabric Barriers,” *Journal of Aircraft*, Vol. 48, No 6, 2059-2067.
- **Rabb, R.** and Fahrenthold, E. (2011), “Evaluation of Shear Thickening Fluid Kevlar for Large Fragment Containment Applications,” *Journal of Aircraft*, Vol. 48, No 1, 230-234.
- **Rabb, R.** and Fahrenthold, E. (2010), “Impact Dynamics Simulation for Multilayer Fabrics,” *International Journal for Numerical Methods in Engineering*, Vol. 83 Issue 5, 537-557.
- Fahrenthold, E., **Rabb, R.**, Bohannon A. (2007), “Numerical Simulation of Impact Effects on Multilayer Fabrics,” *Shock Compression of Condensed Matter – 2007, American Institute of Physics*, Vol. 955 Issue 1, 1285-1288.

- **Rabb, R.J.** and Fahrenthold, E.P. (1999), “Numerical Simulation of Oblique Impact on Orbital Debris Shielding,” *International Journal of Impact Engineering*, Vol. 23, 735-744.

Refereed Conference Proceedings

- **Rabb, R.**, Martin, A., Book, E., Bower, K. (2017), “Math Problem Solving Sessions for Freshman Engineering Success,” *Proceedings of the Ninth Annual First Year Engineering Experience (FYEE) Conference*, Daytona Beach, FL, Aug 6-8.
- **Rabb, R.**, Bower, K., Barsanti, R., Welch, R. (2017), “Veteran Students in Engineering Leadership Roles,” *Proceedings of the 2017 ASEE Annual Conference on Engineering Education*, Columbus, OH, June 25-28.
- **Rabb, R.**, Bass, P., Bubacz, M., Skenes, K. (2017), “A CAD Course Revision: Active Learning In and Out of the Classroom,” *Proceedings of the 2017 ASEE Annual Conference on Engineering Education*, Columbus, OH, June 25-28.
- Michalaka, D., **Rabb, R.**, Engelhardt, S. (2017), “Tour of Engineering Summer Camp for Rising 8th and 9th Graders,” *Proceedings of the 2017 ASEE Annual Conference on Engineering Education*, Columbus, OH, June 25-28.
- Welch, R., **Rabb, R.**, Martin, A., Bower, K. (2017), “Growing and Training Effective Faculty,” *Proceedings of the 2017 ASEE Annual Conference on Engineering Education*, Columbus, OH, June 25-28.
- Welch, R., **Rabb, R.**, Bower, K. (2017), “Non-Tenure Track Faculty Professional Development Opportunities,” *Proceedings of the 2017 ASEE Annual Conference on Engineering Education*, Columbus, OH, June 25-28.
- Welch, R., Bower, K., **Rabb, R.**, Martin, A., Barsanti, R. (2017), “STEM Scholarships to Engage Exceptional Students,” *Proceedings of the 2017 ASEE Annual Conference on Engineering Education*, Columbus, OH, June 25-28.
- Bubacz, B., **Rabb, R.**, Howison, J., Skenes, K., Bass, P., Geathers, J., Book, E. (2017), “ABET Program Assessment (A.P.A.) for a New Engineering Program,” *Proceedings of the 2017 ASEE Zone 2 Annual Conference*, San Juan, Puerto Rico, Mar 2-5.
- Floyd, C., Johnson, K., **Rabb, R.** (2017) “Engineering Internships – Individual and Program Assessment,” *Proceedings of the 2017 ASEE Zone 2 Annual Conference*, San Juan, Puerto Rico, Mar 2-5.
- **Rabb, R.**, Martin, A., Bower, K., Barsanti, R. (2016), “A Math Review’s Impact on Freshman Engineering Retention and Success,” *Proceedings of the Eighth Annual First Year Engineering Experience (FYEE) Conference*, Columbus, OH, Jul 31-Aug 2.
- **Rabb, R.**, Bubacz, M., Howison, J., Skenes, K. (2016), “Effects of Readiness Initiatives on Mechanical Engineering Retention and Success,” *Proceedings of the 2016 ASEE Annual Conference on Engineering Education*, New Orleans, LA, June 26-29.
- Welch, R., Martin, A., Bower, K., **Rabb, R.** (2016), “Promoting Engagement through Innovative and Pragmatic Programs,” *Proceedings of the 2016 ASEE Annual Conference on Engineering Education*, New Orleans, LA, June 26-29.
- **Rabb, R.**, Bubacz, M., Howison, J., Skenes, K. (2016), “Integrating 2+2 Transfer Students in a New Mechanical Engineering Program,” *Proceedings of the Second Annual Mid Year Engineering Experience (MYEE) Conference*, College Station, TX, Mar 30- Apr 01.
- Maier, C. Martin, A., **Rabb, R.** (2016), “Student and Instructor Perceptions of a Supplemental Instruction Program,” *Proceedings of the 2016 ASEE Southeast Section Annual Conference*, Tuscaloosa, AL, Mar 13-15.
- Mills, A. and **Rabb, R.** (2016), “New Intern, How are we Going to Use You?” *Proceedings of the 2016 ASEE Southeast Section Annual Conference*, Tuscaloosa, AL, Mar 13-15.

- Bubacz, M. and **Rabb, R.**, Howison, J., Skenes, K., (2016), “Introducing a Tool for ABET Course Assessment (ACA) for a new Engineering Program,” *Proceedings of the 2016 ASEE Southeast Section Annual Conference*, Tuscaloosa, AL, Mar 13-15.
- **Rabb, R.**, Bubacz, M., Howison, J., Skenes, K. (2015), “Design and Assessment of a New First Year Freshman Mechanical Engineering Sequence,” *Proceedings of the Seventh Annual First Year Engineering Experience (FYEE) Conference*, Roanoke, VA, Aug 2-4.
- Martin, A., Welch, R., **Rabb, R.** (2015), “Extended Abstract – Freshmen Outreach Program to Retain Engineering Majors,” *Proceedings of the Seventh Annual First Year Engineering Experience (FYEE) Conference*, Roanoke, VA, Aug 2-4.
- **Rabb, R.**, Bubacz, M., Howison, J., Skenes, K. (2015), “Assessing Course Outcomes for a Freshman Engineering Computer Programming Course,” *Proceedings of the Seventh Annual First Year Engineering Experience (FYEE) Conference*, Roanoke, VA, Aug 2-4.
- **Rabb, R.**, Howison, J., and Skenes, K. (2015), “Assessing and Developing a First Year Introduction to Mechanical Engineering Course,” *Proceedings of the 2015 ASEE Annual Conference on Engineering Education*, Seattle, WA, June 14-17.
- Bubacz, M. and **Rabb, R.** (2015), “Introducing a Tool for Evaluating Course Objectives (TECO) for a new Engineering Program,” *Proceedings of the 2015 ASEE Southeast Section Annual Conference*, Gainesville, FL, April 12-14.
- Holt, H., Mills, A, **Rabb, R.**, and Michalaka, D. (2015), “An Effective Student Implemented STEM Outreach Program for Title 1 Schools” *Proceedings of the 2015 ASEE Southeast Section Annual Conference*, Gainesville, FL, April 12-14.
- Wade, B., **Rabb, R.**, McVay, R., and Hanlon, P. (2012), “Adjusting Student Test Preparation Through Their Own Self-assessment,” *Proceedings of the 2012 ASEE Annual Conference on Engineering Education*, San Antonio, TX. June 10-13. **Best Paper Award in the New Engineering Educators Division.**
- **Rabb, R.**, and Fahrenthold, E. (2011), “Simulation of Large Fragment Impacts on Neat and STF Kevlar Fabric Barriers,” *Proceedings of the 52nd AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference*, Denver, CO, April 4-7.
- Rogers, J. and **Rabb, R.** (2010), “Control Theory in Practice: Magnetic Levitation,” *Proceedings of the 10th ASME Conference on Engineering Systems and Design Analysis*, Istanbul, Turkey, July 12-14.
- **Rabb, R.** and Hitt, J. (2010), “Designing a Complex Undergraduate Multidisciplinary Capstone Project: Get Your Kicks With a Bionic Foot,” *Proceedings of the 2010 ASEE Annual Conference on Engineering Education*, Louisville, KY, June 20-23.
- Rogers, J. and **Rabb, R.** (2010), “Enhancing Outreach Through a Summer Hands-on Engineering Workshop,” *Proceedings of the 2010 ASEE Annual Conference on Engineering Education*, Louisville, KY, June 20-23.
- **Rabb, R.**, and Fahrenthold, E. (2010), “Evaluation of Shear Thickening Fluid Kevlar for Large Fragment Containment Applications,” *Proceedings of the 51st AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference*, Orlando, FL, April 12-15.
- **Rabb, R.**, Biaglow, D., Chang, D. (2009), “Redesign of a Dynamic Modeling and Control Course for Multidisciplinary Engineering,” *Proceedings of the 2009 ASEE Annual Conference on Engineering Education*, Austin, TX, June 14-17.
- **Rabb, R.**, Nowicki, M., Bristow, E. (2009), “Impacts of an Early Research Experience on Recruiting and Retention in Engineering,” *Proceedings of the 2009 ASEE Annual Conference on Engineering Education*, Austin, TX, June 14-17.
- Rogers, J., **Rabb, R.**, Korpela, C., Ebel, R. (2009), “Learning Mechatronics Through Graduated Experimentation,” *Proceedings of the 2009 ASEE Annual Conference on Engineering Education*, Austin, TX, June 14-17. **Best Paper Award in the Division of Experimentation and Laboratory Oriented Studies.**

- Chang, D., Hanlon, P., Ingold, K., **Rabb, R.** (2009), “Educating Generation ‘Y’ in Robotics,” *Proceedings of the 2009 ASEE Annual Conference on Engineering Education*, Austin, TX, June 14-17.
- **Rabb, R.**, Chang, D., Rogers, J. (2008), “Dynamic Modeling and Control: Interdisciplinary Faculty Teamwork and Techniques” *Proceedings of the 9th ASME Conference on Engineering Systems and Design Analysis*, Haifa, Israel, July 7-9.
- **Rabb, R.**, and Chang, D. (2008), “Interdisciplinary Teaching Techniques and Learning in Dynamic Modeling and Control,” *Proceedings of the 2008 ASEE Annual Conference on Engineering Education*, Pittsburgh, PA, June 22-26.
- **Rabb, R.**, Chang, D., and Rogers, J. (2008), “Course Development and Team Teaching Challenges in Interdisciplinary Dynamic Modeling and Control,” *Proceedings of the 38th Annual Frontiers in Education Conference*, Saratoga Springs, NY, October 22-25.
- **Rabb, R.J.**, and Klegka, J.S. (2002), “An Effective Engineer Design and Teambuilding Experience for Non-Engineers,” *Proceedings of the 2002 ASEE Annual Conference on Engineering Education*, Montreal, Quebec, June 16-19.
- **Rabb, R.J.**, and Welch, R.W. (2002), “Projects Day: Completion of the Engineering Capstone Design,” *Proceedings of the 2002 ASEE Annual Conference on Engineering Education*, Montreal, Quebec, June 16-19.
- **Rabb, R.J.**, and Klegka, J.S. (2001), “A Modern Mechanical Engineering Sequence for the United States Military Academy,” *Proceedings of the 2001 ASEE Annual Conference on Engineering Education*, Albuquerque, NM, June 24-27.
- **Rabb, R.J.**, and Klegka, J.S. (2001), “Designing an Engineering Experience for Non-Engineers,” *Proceedings of the 2001 ASEE Annual Conference on Engineering Education*, Albuquerque, NM, June 24-27.
- **Rabb, R.J.**, and Klegka, J.S. (2000), “Engineering Design Opportunities at the United States Military Academy,” *Proceedings of the 2000 ASEE Annual Conference on Engineering Education*, St. Louis MO, June 18-21.

Other Peer Reviewed Publications

- Contributing Author (2015), “United States Army Corps of Engineers Overseas Contingency Operations Playbook,” *Special Study No. 16-01*, Center for Army Lessons Learned, Fort Leavenworth, KS, October.

Thesis Publications

- **Rabb, R.J.**, (2007), “A Mesomechanical Particle-Element Model of Impact Dynamics on Neat and Shear Thickening Fluid Kevlar,” PhD Dissertation, Department of Mechanical Engineering, The University of Texas, Austin, TX.
- **Rabb, R.J.**, (1998), “Numerical Simulation of Ballistic Limit Curves for Orbital Debris Shielding,” M.S.E. Thesis, Department of Mechanical Engineering, The University of Texas, Austin, TX.

IV. SERVICE

Institutional Service

- Member, Faculty Senate, The Citadel
- Member, Undergraduate Curriculum Committee, The Citadel
- Member, STEM Scholar Committee, The Citadel
- President, USMA Phi Kappa Phi Chapter and department representative
- Treasurer, USMA Phi Kappa Phi Chapter and department representative
- Director, Mechanical Engineering Design Group, Mechanical Engineering Division
- Coordinator, Mechanical Engineering Academic Individual Advance Development (AIADs)

(Student Summer Internships)

- Member, New Faculty Search Committees
- Summer Leadership Seminar Instructor
- Member, USMA Admissions Committee

Editorial Activities

- Reviewer, American Society of Engineering Education, Mechanical Engineering Division, PIC II Best Paper 2017
- Reviewer, American Society of Engineering Education, Mechanical Engineering Division 2016
- Reviewer, First Year Engineering Experience (FYEE) 2016
- Reviewer, First Year Engineering Experience (FYEE) 2015
- Reviewer, American Society of Engineering Education, New Engineering Educators Division 2010
- Reviewer, American Society of Engineering Education, Multidisciplinary Education Division, 2009
- Reviewer, American Society of Engineering Education, Multidisciplinary Education Division 2008
- Reviewer, ASME Engineering Systems Design and Analysis (ESDA) 2008
- Reviewer, American Society of Engineering Education Zone 1 Conference 2008
- Reviewer, American Society of Engineering Education, Design in Engineering Education Division, 2000

Professional Society Service

- ASEE Military Veterans Division, Program Chair Elect 2017
- ASEE Military Veterans Constituent Committee, Secretary / Treasurer 2016

Conference Leadership

- Session Moderator, Military Veterans Constituent Committee Technical Session, ASEE Annual Conference 2017, Columbus, OH
- Session Moderator, Multidisciplinary Course Innovation, ASEE Annual Conference 2009, Austin, TX
- Technical Session and Poster Session Coordinator, ASEE Zone 1 Conference 2008, United States Military Academy, West Point, NY
- Junior Mentor, Teaching Teachers to Teach Engineering (T4E) Workshop 1998, West Point, NY

V. STUDENT DEVELOPMENT

Research

- Co-author on four conference papers with students, internal and external to the mechanical engineering program; papers are listed under Scholarship

Experiential Learning

- Coordinated student internships (John Hopkins – 4, IFA Rotorion – 1, Daimler – 2, CMS – 2) as part of MECH 498, Mechanical Engineering Internship, 2017
- Coordinate 5 student internships (Daimler – 3, Boeing – 1, IFA Rotorion – 1) as part of MECH 498, Mechanical Engineering Internship, 2016
- Coordinated 7 student internships at John Hopkins University Applied Physics Lab (APL), Summer 2016
- Coordinated 4 student internships at John Hopkins University Applied Physics Lab (APL), Summer 2015, one internship resulted in employment after graduation

Academic Mentor

- Critical Scientific Reasoning, 11 students mentored towards Hertz, National Science Foundation, and Churchill Scholarships, 2009-2010
 - Two students awarded National Science Foundation Scholarships
 - One student was a Hertz finalist
- Critical Scientific Reasoning, 3 students mentored towards Hertz and National Science Foundation Scholarships, 2008-2009
- Judge, U.S. Army's eCybermission Outreach Program, 2009-2010

Honor Mentor

- Mentor to former student seeking readmission. Student was serving in the Army on USMA's Army Honor Mentorship Program and readmitted to the class of 2010
- Mentor to student in the Honor Mentorship Program, student graduated in the winter 2000

Officer Representative / Assistant Coach

- Student / Cadet Rifle Team, 1998-2001

Academic Counselor

- 65 veteran, transfer, cadet, and graduate students, The Citadel, 2017
- 42 veteran, transfer, and cadet students, The Citadel, 2016
- 37 veteran, transfer, and cadet students, The Citadel, 2015
- 33 Sophomores, West Point, NY, 2009-2010
- 35 Freshmen, West Point, NY, 2008-2009

Student Summer / Military Training

- Student / Cadre Trainer, Cadet Field Training, 2008
- Student / Cadre Trainer, Cadet Field Training, 1999

VI. FACULTY DEVELOPMENT

Workshops and Presentations

- Instructor and senior mentor, Instructor Summer Workshop, C&ME, USMA, 2009
- Senior Mentor, Instructor Fall Workshop, C&ME, USMA, 2008
- Afghanistan 1386, Phi Kappa Phi, The Citadel, 2017

Professional Development

- Mini-ExCEED Teaching Workshop, The Citadel, 2017
- Mini-ExCEED Teaching Workshop, The Citadel, 2015
- Master Teacher Program Senior Mentor to two junior faculty members outside of the Department of Civil and Mechanical Engineering, 2009-2010
- Director, Mechanical Engineering Design Group, supervising 10 faculty members and their courses, 2008-2009
- Professional Engineer (P.E.) coordinator for the Mechanical Engineering Division faculty: coached five faculty members throughout two years with all passing the exam, 2008-2010

Research

- Co-author on several conference papers with junior faculty internal and external to the department; papers are listed under Scholarship

- Two papers with junior faculty received Best Paper in Division Award at annual ASEE Conferences

VII. AWARDS AND HONORS

- Engineer of the Year, Charleston Engineers Joint Council, 2016
- Best Paper Award in the New Engineering Educators Division, "Adjusting Student Test Preparation Through Their Own Self-assessment," *2012 ASEE Annual Conference on Engineering Education*, San Antonio, Texas
- Best Paper Award in the Division of Experimentation and Laboratory Oriented Studies, "Learning Mechatronics Through Graduated Experimentation," *2009 ASEE Annual Conference on Engineering Education*, Austin, Texas
- George J. Heuer, Jr. Ph.D. Endowed Graduate Fellowship Award, 2006, College of Engineering, The University of Texas at Austin (one selected annually)
- Alex Charters Student Scholar Award, 2005, by the International Hypervelocity Impact Symposium (one of 15 selected every two years)

VIII. PROFESSIONAL MEMBERSHIP

- Member, American Society for Engineering Education (ASEE)
- Member, Society of American Society of Mechanical Engineers (ASME)
- Member, Society of American Military Engineers (SAME)
- Member, Phi Kappa Phi (PKP) Honor Society
- Member, Tau Beta Pi (TBP) Honor Society

IX. LANGUAGES

- Persian-Afghan: Basic speaking, writing, reading
- German: Basic speaking, writing, reading
- Latin: Basic writing, reading