

DR. GEORGE D. FORD P.E.

Professor & Director
Building Construction Science
gdf53@msstate.edu
Office - (662)-325-8310
Mailstop 9635

132 Howell Hall
Mississippi State University
Starkville, MS 39762

EDUCATION

Western Carolina University
Ed.D. in Educational Leadership
Cullowhee, NC
2008

University of South Carolina
M.E. in Environmental Engineering
Columbia, SC
1999

Clemson University
MBA
Clemson, SC
1990

Clemson University
B.S. in Mechanical Engineering
Clemson, SC
1984

HIGHER EDUCATION EXPERIENCE

Mississippi State University
Director, Building Construction Science Program
Professor of Building Construction Science
Starkville, MS
July 2018-Present

- Responsible for managing undergraduate students in a Building Construction Science program.

Western Carolina University
Director, Master of Construction Management Program
Associate Professor of Construction Management
Cullowhee, NC
August 2007-July 2018

- Responsible for teaching undergraduate students in Construction Management
- Courses taught: Statics; Facilities Management; Mechanical and Electrical Systems; and Environmental Health and Safety

Western Carolina University
Visiting Assistant Professor of Engineering Technology
Cullowhee, NC
August 2006-August 2007

- Taught courses in Engineering Materials, Statics, Plant Layout, Introduction to Engineering Technology, Senior Project, & Engineering Economics

Western Carolina University
Senior Faculty Associate, Engineering & Technology Department
Cullowhee, NC
August 2004-August 2006

- Performed administrative duties such as class scheduling, assessment, recruiting and manpower planning as assigned by the Department Head

Spartanburg Community College
Program Director, Mechanical Engineering Technology Program
2004

Spartanburg, SC
August 2000-August

- Performed teaching and administrative duties as required for two-year engineering technology program

PROJECT MANAGEMENT & INDUSTRIAL EXPERIENCE

Sealed Air Corporation
Environmental Manager, Cryovac Division

Simpsonville, SC
1997-2000

- Responsible for supervising 25 personnel performing safety and environmental duties for large printing company
- Oversaw construction projects

Sealed Air Corporation
Environmental Engineer, Cryovac Division

Duncan, SC
1995-1997

- Traveled to ten plants in North America to oversee environmental and safety projects and programs

Sealed Air Corporation
Facilities Engineering Manager, Cryovac Division

Simpsonville, SC
1990-1995

- Responsible for supervising 25 personnel performing HVAC, electrical, mechanical and fire protection related duties for large printing company
- Oversaw all construction projects

Dunlop Slazenger
Plant Engineer

Seneca & Westminster, SC
1988-1990

- Responsible for all plant and production equipment maintenance and all construction projects in a world-class golf ball operation
- Supervised full-time crew of 25 personnel

Wilson Sporting Goods
Assistant Plant Engineer

Fountain Inn, SC
1986-1988

- Responsible for plant improvements and construction projects

Davis Mechanical Contractors
Project Manager

Greenville, SC
1984-1986

- Responsible for piping and mechanical construction projects

TEACHING INTERESTS

- Construction management and facilities engineering
- Environmental health and safety
- Mechanical and refrigeration
- Statics

- Plumbing & piping
- Electrical systems

Scholarship

Steven S., Suk, S., and Ford, G. (2016). Characterizing Electrical Output of Bifacial Photovoltaic Modules by Altering Reflective Materials. *Journal of Building Construction and Planning Research*, 4(1).

Kim, T., Tae, S., Suk, S., Ford, G., and Yang, K. (2016) “Optimization System for Concrete Life Cycle Cost and Related CO2 Emissions.” *Sustainable Engineering and Science*. February, 2016.

Lee, J., Tae, S., Shin, Suk, S., Yang, K., Ford, G., Smith, M., and Shoghli, O. (2015). A study of carbon emissions during building construction. *Proceedings at the International Conference on Engineering and Architecture*. San Francisco, CA

Park, M., Roh, S., Tae, S., Suk, S., Ford, G. and Smith, M. (2015). A study on the sustainable building technologies to performance of greenhouse gas emission reduction. *SCOPUS Journal*.

Gong, Y., Tae, S., Shin, S., Suk, S., Ford, G and Smith, M. (2015). Life Cycle Assessment Applied to Green Building Certification in South Korea. *SCOPUS Journal*.

Roh, S., Tae, S., Shin, S., Che, C., Suk, S., and Ford, G. (2015). Methods to improve BIM based estimations of major building material quantities in life cycle assessment. *SCOPUS Journal*.

Roh, S., Tae, S., Suk, S., Ford, G., and Shin, S. (2015) “Evaluating the embodied environmental impacts of major building tasks and materials of apartment buildings.” *Renewable & Sustainable Energy Reviews*

Roh, S., Tae, S., Suk, S., Ford, G., and Shin, S. (2015). “Development of a Building Life Cycle Carbon Emissions Assessment Program (BEGAS 2.0) for Korea’s Green Building Index Certification System.” *Renewable & Sustainable Energy Reviews*

Ford, G., Ahn, Y., and Choi, D. (2014). Modular building for urban disaster housing: Case study of urban post-disaster housing prototype in New York. *Fire Science Engineering*. 28(6), p82-89.

Mau, R., and Ford, G., (2014). University Education Dilemma: Challenge of Incorporating Alternate Views of Scholarship and Teaching. *Journal of Professional Issues in Engineering Education and Practice*. 10.1061/(ASCE)EI.1943-5541

Steffen, R., Suk, S., Ahn, Y., and Ford, G. (2013). Modeling Energy Generation by Grid Connected Photovoltaic Systems in the United States. *Journal of Building Construction and*

Planning Research.

White, H., Cruz, L., Ellern, J., Ford, G., and Moss, H., (2012). Bound by tradition? Peer review and new scholarship: An institutional case study. *Research in Higher Ed Journal*

Ford, G., Kinard, C., and Sims, B., (2012). Measuring Educational Program Effectiveness Using the Associate Constructor's Exam. *Journal of Industrial Technology* 28(1), p1-6

Cruz, L., Ellern, J., Ford, G., Moss, H., and White, B., (2009). Recognition and Reward: SOTL and the Tenure Process at a Regional Comprehensive University. *Mountain Rise Journal* 5(3). p1-27

Refereed/Peer Reviewed Conference Proceedings

Suk S., and Ford, G. (2017). An Experiment on the Effect of the Use of Augmented Reality on Students' Quantity Take-off Performance. *Proceedings at the International Symposium on Automation and Robotics in Construction. Taipei, Taiwan*

Suk S., Sciara, S., and Ford, G. (2017). A review of the benefits of a residential solar power installation in western North Carolina. *Proceedings at the American Society for Engineering Education National Conference. Columbus, OH.*

Ford, J., and Ford, G. (2017). Articulation of Military Earned College Credit into the University of North Carolina University System. *Proceedings at the American Society for Engineering Education National Conference. Columbus, OH.*

Shoghli, O. and Ford, G. (2017). Students' first employment expectations in technology programs. *Proceedings at the American Society for Engineering Education National Conference. Columbus, OH.*

Ford, G., and Ford, J. (2016). Translating United States military occupational specialties training into college credit. *Proceedings at the American Society for Engineering Education National Conference. New Orleans, LA.*

Park, M., Tae, S., Suk, S., Ford, G., and Smith, M. (2015) "A Study on the Sustainable Building Technologies considering to Performance of Greenhouse Gas Emission Reduction." *International Conference on Sustainable Design, Engineering and Construction, Chicago, USA*

Gong, Y, Tae, S, Suk, S, Ford, G, and Smith, M. (2015) "Life Cycle Assessment Applied to Green Building Certification in South Korea." *International Conference on Sustainable Design, Engineering and Construction, Chicago, USA*

Ford, G., Ball, A., Tae, S., and Smith, M. (2015). Project based capstone course in an undergraduate construction management program. *Proceedings at the American Society for Engineering Education National Conference*. Seattle, WA

Ahn, Y., Kim, H., and Ford, G. (2014). An Integrative Literature Review of Sleep Disturbances on Construction Workers. *Proceedings at the Conference for Industrial and Systems Engineering Research*. Montreal, Quebec, Canada

Ford, G., and Suk, S., (2014). Church Energy Audits in the United States *Proceedings at the Construction Research Congress National Conference*. Atlanta, GA. (Submitted)

Kang, L., Suk, S., Ahn, Y. and Ford, G. (2013). Greenhouse Gas Emissions during Operation and Maintenance of Residential Buildings”. *Proceedings at the International Conference on Sustainable Building*. Seoul, Korea.

Ford, G., Fearington, H., and Williams, J., (2012). Enrollments in graduate engineering programs for the next ten years. *Proceedings at the Conference for Industry and Education Collaboration*. Orlando, FL.

Ford, G., Steffen, R., and Ford, R., (2012). Student retention in the University of North Carolina System. *Proceedings at the American Society for Engineering Education National Conference*. San Antonio, TX.

Ford, G., McDaniel, W., and Ball, A., (2012). University and community college collaboration in North Carolina. *Proceedings at the American Society for Engineering Education Southwest Section Conference*. Starkville, MS.

Ford, G., and Buchanan, W., (2011). Developing an on-line environmental issues course for an American Council for Construction Education accredited program. *Proceedings at the American Society for Engineering Education Southwest Section Conference*. Houston, TX

Ball, A., Ford, G., and Miceli, F., (2011). Integrating project based learning through machine design, fabrication and testing. *Proceedings at the American Society for Engineering Education National Conference*. British Columbia, Canada (also presented paper at conference)

Ford, G., and Ball, A., (2011). The evolution of engineering and engineering technology educational programs in the United States. *Proceedings at the American Society for Engineering Education National Conference*. British Columbia, Canada (also presented paper at conference)

Ford, R., Ford, G., and McBride, J., (2011). The evolution of the Global Positioning System. *Proceedings at the American Society for Engineering Education Southeast Section Conference*. Charleston, SC (also presented paper at conference)

Ford, G., McDaniel, W., and Yanik, P., (2011). Analysis of the air conditioning systems in a blown films manufacturing plant in the southeastern United States. *Proceedings at the*

American Society for Engineering Education Southeast Section Conference. Charleston, SC (also presented paper at conference)

Ferguson, C., Ford, G., and Bumgarner, R., (2011). A discussion of tort liability in engineering technology laboratories. *Proceedings at the American Society for Engineering Education Southeast Section Conference*. Charleston, SC (also presented paper at conference)

Ford, G. and Ferguson, C., (2010). Faculty student advising at Western Carolina University. *Proceedings at the American Society for Engineering Education Southeast Section Conference*. Blacksburg, VA (also presented paper at conference)

Ford, G., Patterson, J., and Sims, B., (2010). Recruiting and retention strategies for construction employers in the United States *Proceedings at the American Society for Engineering Education Southeast Section Conference*. Blacksburg, VA (also presented paper at conference)

Ford, G., Patterson, J., and Bumgarner, R., (2010). Improving Statics instruction in four-year technology programs. *Proceedings at the American Society for Engineering Education Southeast Section Conference*. Blacksburg, VA (also presented paper at conference)

Ford, G. and Ball, A., (2010). A case study: An energy audit for a small municipality in North Carolina. *Proceedings at the American Society for Engineering Education Southeast Section Conference*. Blacksburg, VA (also presented paper at conference)

Ford, G. and Anderson, R., (2010). Developing a modern engineering technology curriculum: A case study at Western Carolina University. *Proceedings at the American Society for Engineering Education Conference*. Louisville, KY

Ford, G. and Miers, R., (2010) Engagement & project based learning. *Proceedings at the American Society for Engineering Education Conference*. Louisville, KY

Patterson, J. and Ford, G., (2010). A Holistic Approach to Hurricane Mitigation for Residential Structures. *Proceedings at the Associated Schools of Construction Conference*. Boston, MA.

Ford, G. and Buchanan, W., (2010). Environmental scanning for industrial advisory committee planning in a construction management educational program. *Proceedings at the American Society for Engineering Education Midwest Section Conference*. Lake Charles, LA.

Patterson, J. & Ford, G. (2009). Basic aspects of hurricanes for technology faculty in the United States. *Proceedings at the American Society for Engineering Education Southeast Section Conference*._ Marietta, GA

Patterson, J. & Ford, G. (2009). The damaging impacts of hurricanes upon coastal structures. *Proceedings at the American Society for Engineering Education Southeast Section Conference.*_ Marietta, GA

Yanik, P., Ford, G. and Howell, B. (2009). An introduction to fuzzy logic applications for robot motion planning. *Proceedings at the American Society for Engineering Education Southeast Section Conference.*_ Marietta, GA

Ford, G., Patterson, J., and Sims, B. (2009). How to determine construction project rain delay times using local rainfall databases in Asheville, North Carolina. *Proceedings at the Construction Institute of the American Society of Civil Engineers.* Portland, OR

Ford, G & Mau, R. (2008). University Freshman Retention in North Carolina. *Proceedings at the American Society for Engineering Education Southeast Section Conference.* Memphis, TN. (also presented paper at conference)

Ford, G & Miers, R (2008). A Brief Introduction to Environmental Scanning for Higher Educational Institutions in North Carolina. *Proceedings at the American Society for Engineering Education Southeast Section Conference.*_ Memphis, TN.

Ford, G. & Yanik, P. (2008). A fuels cost comparison of gasoline and electric powered vehicles. *Proceedings at the American Society of Mechanical Engineering.* Jacksonville, FL

Anderson, R., Ford, G. and Yanik, P. (2008). Service learning in technology programs at Western Carolina University. *Proceedings at the International Conference on Engineering and Computer Education.* Buenos Aires, Argentina

Ford, G. & Patterson, J. (2008). How to teach statics to four-year technology students. *Proceedings at the International Conference on Engineering and Computer Education.* Buenos Aires, Argentina

McDaniel, W., & Ford, G. (2007). An Innovative Student Engagement Project: Lessons Learned from a Log Cabin. *Proceedings at the American Society for Engineering Education Southeast Section Conference.* Louisville, KY.

Ford, G., McDaniel, W., & Ball, A. (2007). Global Warming at Asheville, North Carolina. *Proceedings at the 3rd National Conference on Environmental Science and Technology.* Greensboro, NC

GRANTS & AWARDS

1. North Carolina State Energy Office. Student Internship grant. (2010). \$249,572.40 (Funded)
2. National Science Foundation. Sustainable Design and Construction grant. (2010). \$300,812. (Not funded)
3. National Science Foundation grant. Standardizing ground source heat pumps for use in the southeast United States. (2010). Approximately \$200,000. (Not funded)

4. Chancellor's Travel grant. (2010). \$1000
5. Sediment retention grant. (2009). \$15,000 (Not funded)
6. Appalachian Regional Commission grant. (2009). An Integrated System for Improving Energy Audits. \$79,600 (not funded)
7. QEP Assessment grant. (2009). \$2500
8. Lowe's of Franklin, N. C., equipment grant. (2007). \$250
9. Northern Hydraulics of Asheville, N.C., equipment grant. (2007). \$250
10. Mechanical-Electrical Academic Consortium, Workshop grant. (2007). \$1200

SERVICE TO THE UNIVERSITY & PROFESSIONAL EXPERIENCE

a. Departmental :

Chair, Construction Management Department Tenure Committee (2014-2017)
Chair, Kimmel School of Construction Management Industrial Advisory Committee (2007-2017)
Liaison, Construction Management Department Recruiting/Admissions (2007-2017)
Team Leader, AGC/CRC Commercial Competition Team, Jacksonville, FL (2007-2015)
Faculty Advisor, Society of Automotive Engineers Student Club (2004-2008)
Chair, E&T Dept. Scholarship Committee (2004-2006)

b. College

Member, College of Engineering and Technology Tenure Committee
Chair, Kimmel School Dean's Advisory and Committee (2007-2008)
Member, Construction Management Industrial Advisory Committee (2007-2008)

c. Institutional

Member, College of Engineering and Technology Tenure Committee (2014-2017)
Member, Registrar's Advisory Board (2006-2015)
Member, Facilities Performance Contracting Committee (2008)
Member, Faculty Learning Community Sustainability Committee (2008-2014)
Reviewer, First Year Seminar Assessment Team, QEP program (2008)
Team member, Selection Committee for the University Assessment Director (2005)

PROFESSIONAL MEMBERSHIPS/AWARDS

Professional Engineering License, State of South Carolina, 1992
 Professional Engineering License, State of North Carolina, 2005
 Waste Water Operator's License, State of South Carolina, 1995
 Infantry Braid, Infantry Officer's Basic Course, Fort Benning, Georgia, 1985 (Graduated Infantry course with honors)
 Paratrooper Wings, Airborne School, Fort Bragg, North Carolina, 1982

PROFESSIONAL MEMBERSHIPS

Member, American Society for Engineering Education, 2006-Present
Member, Society of Mechanical Engineers, 2006 - 2008
Member, Society of Automotive Engineers, 2004 - 2006

Member, South Carolina Teachers' Association, 2001-2004
Member, Carolinas' Air Pollution Control Association, 2006-2015

REFERENCES

Dr. Hollye Moss, Professor, College of Business, Western Carolina University, Cullowhee, NC;
(828)-227-7412

Dr. AJ Grube, Professor, College of Business, Western Carolina University, Cullowhee, NC;
(828)-227-7412

Dr. Melissa Wargo, Chief of Staff, Chancellor's Office, Western Carolina University,
Cullowhee, NC; (828)-227-3082

****Additional references available upon request.**