Dr. Bradley Wade Foust

111 Weldon Dr.
Madison, MS 39110
Cell: 601-955-7680
Email Address: foustengineering@gmail.com

EDUCATION

Doctor of Philosophy (PhD), 2013, Civil Engineering, University of Florida
Master of Science (MS), 2003, Civil Engineering, Auburn University
Bachelor of Civil Engineering, 2002, Auburn University,

WORK EXPERIENCE

01/03/2018 to Present – Owner/CEO Foust Engineering. Foust Engineering is a structural engineering consulting firm that specializes in structural design of residential and light commercial structures. Bradley serves as CEO and primary structural engineer for Foust Engineering. The Foust Engineering team provides structural engineering services with a profound focus on structural ingenuity, teamwork, efficiency, and attention to details. We have established a strong reputation of design excellence and technical detailing for each of our projects and clients. In addition, we provide foundation assessments for residential houses and commercial buildings.

01/26/2004 to Present – Research Structural Engineer U.S. Army Engineer Research and Development Center (ERDC) Vicksburg, MS 39180
I currently serve in the Structural Mechanics Branch (SMB) of the Geotechnical and Structures Laboratory (GSL) at ERDC. I perform research and development in the areas of blast mitigation technologies to protect our country's critical infrastructure and military assets, as well as the development of high strength concrete materials and their structural application to new and existing facilities. Throughout my career in GSL, I have been the principal investigator and/or program manager for multiple Civil Reimbursable Programs. I have served in this capacity for several of GSL's major customers, The Department of State (DOS), The Department of Homeland Security (DHS), USACEHQ, and the Combatting Terrorism Technical Support Office (CTTSO). I have multiple publications in various journals, international symposiums, technical reports, and conference proceedings. I have given over 10 presentations at technical conferences and international symposiums.

08/01/2002 – 12/31/03 - Graduate Research Assistant/Graduate Teaching Assistant - Auburn University, Auburn, AL, Dr. Ed Ramey
Performed research on the effects of chemical admixtures and mineral supplements on the fresh and hardened properties of cement mortar. Performed several ASTM test to determine the behavior of mortar with different proportions of admixtures incorporated into the mixture. Developed technical conclusions on each mixture and wrote a Master's Thesis on the subject, which was published in December 2003.

Responsible for teaching the Structural Analysis Laboratory for two semesters while enrolled full time in graduate study.

AWARDS/HONORS

Superior Civilian Service Award 2014
ERDC Award for Outstanding Team Effort 2016, 2019
ERDC Research and Development Achievement Award 2013, 2019
ERDC Program Development Achievement Award 2010
5x - Commanders Award for Civilian Service, May 2005, 2009, 2011, 2016, 2018
Phi Kappa Phi Honor Society, August 2002
Magna Cum Lade, Civil Engineering, Auburn University 2002
Gann Fellowship Recipient, January 2003
Contractor License Fee Scholarship
Auburn University Trustee Scholarship

TRAINING

01/2019 Attack Scene Investigation Forensics Course (ASIFC) 40 hrs
05/2014, 2015, 2016 Leadercast Conference
06/2009 Contracting Officer's Representative Course, 40 hrs.
01/2009 Intermediate Design of Experiments, 40 hrs.
10/2008 Introduction to Design of Experiments, 40 hrs., Dr. Tom Curry
05/2008 and 06/2017 Federal Appropriations Law, 40 hrs.
01/2006 Best Practice Marketing Strategies for Sustained Revenue Growth, Asher Training, 16 hrs.
06/2004 Intern Leadership Development Course, 40 hrs., Department of the Army Civilian Leadership Training Division
07/20/04 PDT LITE course, 24 hrs., US Army Corps of Engineers
03/2004 Explosion Effects and Structural Design for Blast, 16 hrs., Dr. Sam Kiger and Dr. Stan Woodson

TECHNICAL COMMITTEE MEMBERSHIP

ACI Committee 421, Design of Reinforced Concrete Slabs--Joint ACI-ASCE – Associate member
ACI Committee 370, Blast and Impact Load Effects – Associate member
ACI Committee 239, Ultra-High-Performance Concrete – Associate member
ACI Committee 239-0C – Structural Design on UHPC – Voting member
AISC member
Former ASCE Blast, Shock and Impact committee member

ASSOCIATIONS

Madison the City Chamber of Commerce, Madison County Chamber of Commerce, Mississippi Association of Structural Engineers, Home Builders Association of Jackson, MS

LICENSES/CERTIFICATES

Registered Professional Engineer (PE) – Mississippi 28746, Louisiana 42821, and Alabama 38209-E

PUBLICATIONS

1. Foust, B.W., Davis, J., Woodson, S., and Oesch, T., "Small Scale Tunnel Vulnerability Experiments", 79th SAVIAC Shock and Vibration Symposium, Orlando, FL 26-30 October 2008.

2. Baylot, J., Foust, B.W., Oesch, T., and Weed, R., "Simulation of Breach Experiments in a Pipe", 79th SAVIAC Shock and Vibration Symposium, Orlando, FL 26-30 October 2008.

3. DeBejar, L., Foust, B.W., and Smith, D.C., "Preventing Blast Induced Perforation of Metal Plates on an Elastic Foundation", 79th SAVIAC Shock and Vibration Symposium, Orlando, FL 26-30 October 2008.

4. Foust, B.W., Oesch, T., Tennant, D., and Hansen, E., "Evaluation of Innovative Materials Subjected to Near Contact Detonations", 13th International Symposium on the Interaction of the Effects of Munitions with Structures (ISIEMS). Bruehl, Germany, 11-15 May 2009

5. Woodson, S., Foust, B.W., Ray, J., and Davis, J., "Blast Mitigation of Critical Infrastructure", 2009 International Workshop on Structural Response, 15-18 November 2009

6. O'Daniel, J., Foust, B.W., Adley, M., Frank, A., and Baylot, J., "Recent Developments in Computational Modeling of Reinforced Concrete for Blast and Impact Events, 2010 Army Science Conference, Orlando, FL 29 Nov – 2 Dec 2010

7. Torres, J., Foust, B.W., and Woodson, S., "Evaluation of Blast Mitigation Techniques on Cast Iron Panels", 83th SAVIAC Shock and Vibration Symposium, Baltimore, MD 30 Oct – 3 Nov 2011

8. Foust, B.W., Baylot, J.T., Weed, R.A. and Oesch, T.S., "Small Scale Tunnel Vulnerability Experiments" ERDC/GSL TR-12-23, June 2012

9. Foust, B.W. and Oesch, T.S., "Parametric Study of Innovative Materials Used for Blast Mitigation" ERDC/GSL TR-12-22, June 2012

10. Trainor, K.J., Foust, B.W., and Landis, E.N., "Measurement of Energy Dissipation Mechanisms in Fracture of Ultrahigh-Strength Cement-Based

Composites," ASCE Journal of Engineering Mechanics, July 2013, Volume 139, Number 7 pp. 771-779

11. Oesch, T., Foust, B.W., Baylot, J.T., and Weed, R. “Analytical and Experimental Evaluation of Tunnel Vulnerability to Internal, Near-Contact Detonations”, Refereed journal article, Published in Critical Technologies in Shock and Vibration Sept 2013 Volume 8, Number 1

12. Foust, B.W., "Investigation of Compressive Membrane Action in Ultra High-Performance Concrete Slab Strips", Dissertation, University of Florida, Dec 2013

13. Foust, B. and Krauthammer, T., "Boundary Condition Effects on Ultra High-Performance Concrete (UHPC) Slab Performance", 5th International Conference on Design and Analysis of Protective Structures (DAPS2015), Singapore, May 2015

14. Foust, B. and Krauthammer, T., "Restrained Ultra High-Performance Concrete (UHPC) Slab Response", 16th International Symposium for the Interaction of the Effects of Munitions with Structures (ISIEMS), Destin, FL, September 2015 (International Conference Proceeding)

15. Foust, B.W., Torres, J. O., and Alves, S., “Experimental and Numerical Evaluation of a Near-Contact Blast Mitigation Strategy for Unreinforced Masonry”, Military Aspects of Blast and Shock (MABS 24), Halifax, NS, September 2016 (International Conference Proceeding)

16. Foust, B.W., and Krauthammer, T., “Boundary Condition Effects on Static Response of Ultra High-Performance Concrete (UHPC) Slabs”, ACI 421 Special Refereed Publication, September 2017

17. Long, Wendy, Foust, Bradley W., Green, Brian, and Moore, Christopher, “Japan and South Korea Trip Report”, ERDC Special Report April 2017

18. Foust, Bradley, W., Torres, Jorge, O., Wingard, Grady, A., Woodson, Bowen, G., and Alves, Steven W., “Experimental and Numerical Validation of a Blast Mitigation Technique for Unreinforced Masonry” Military Aspects of Blast and Shock, The Hague, Netherlands, September 2018

19. Woodson, B.G., Foust, B.W., Torres, J., Wingard, G.A., and Alves, S.A., “A Blast Mitigation Technique for Unreinforced Masonry: An Experimental and Computational Analysis.” American Society of Civil Engineers Structures Congress. Orlando, FL, April 2019

TECHNICAL PRESENTATIONS

1. Small Scale Tunnel Vulnerability Experiments, 79th SAVIAC, Orlando, FL October 2008
2. Evaluation of Innovative Materials Subjected to Near Contact Detonations, 13th International Symposium on the Interaction of the Effects of Munitions with Structures (ISIEMS). Bruehl, Germany, 11-15 May 2009
3. Investigation of Underwater Cast-Iron Tunnel Vulnerability and Potential Blast Mitigation Techniques, 2009 USACE Infrastructure Systems Conference, Cleveland, OH 2009
4. Numerical Evaluation of the Effects of Loading Rate and Meso-Scale Characteristics on Splitting Tensile Strength of Concrete using LDPM, 80th SAVIAC, San Diego, CA October 2009
5. Modeling Meso-Level Characteristics of Fiber-Reinforced High-Performance Concrete using LDPM, 2009 USACE Research and Development Conference, Memphis, TN, Nov 2009
6. Modeling the Effects of Voids on High Strain Rate Response on Concrete, 6th MIT Conference of Computational Fluid and Solid Mechanics, Boston, MA June 2011
7. Innovative Materials Subjected to Near-Contact Detonations, International Physical Security Forum (IPSF), Brussels, Belgium June 2010
8. Boundary Condition Effects of Ultra High-Performance Concrete (UHPC) Slab Performance, 5th International Conference on Design and Analysis of Protective Structures, Singapore May 2015
9. Boundary Condition Effects on Static Response of Ultra High-Performance Concrete (UHPC) Slabs, 2015 ACI Fall Convention, Denver, CO Nov 2015
10. Experimental and Numerical Evaluation of a Near-Contact Blast Mitigation Strategy for Unreinforced Masonry, Military Aspects of Blast and Shock (MABS24), Nova Scotia, Canada Sept 2016
11. Experimental and Numerical Validation of a Blast Mitigation Technique for Unreinforced Masonry, Military Aspects of Blast and Shock (MABS25), The Hague, The Netherlands, Sept 2018