

## Thomas I. Mulcahey

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- EDUCATION**
- Doctor of Philosophy in Mechanical Engineering* May 2014 (expected)  
Georgia Tech, Atlanta, GA  
Dissertation: Tactical 4K Cryocooler with Novel Adsorbed Helium Regenerator Design  
Concentration: Thermoacoustics, Heat Transfer, Fluid Dynamics, CFD Modeling  
Advisor: Dr. S. Mostafa Ghiaasiaan  
Sponsors: Iris Technology, U.S. NAVY
- Graduate Certificate: Management of Technology* August 2011 (expected)  
*Graduate Certificate: Engineering Entrepreneurship* August 2011 (expected)
- Master of Science in Mechanical Engineering* May 2010  
Georgia Tech, Atlanta, GA  
Thesis Topic: Low Frequency Sound Detection and Localization  
Concentration Area: Acoustics & Dynamics  
Minor Area: Management of Technology  
Advisor: Dr. David L. Hu
- Bachelor of Science in Mechanical Engineering, Cum Laude* May 2007  
Western New England College, Springfield, MA  
Senior Design Topic: Development of Vibrations Demonstrations Using an ED Shaker  
Advisor: Dr. Bart Lipkens
- EXPERIENCE**
- Mechanical Engineer* June 2007-August 2008  
Alstom Power, Inc., Milling Systems Windsor, CT
- Sizing and selection of mechanical components: bearings, fans, motors, gearing, belt drives, etc. for coal pulverizing systems
  - Field performance measurement and reporting: air/coal flow, temperature, noise, oil sealing, and new equipment run-in
  - Proposal development and writing, customer interaction
  - Developed new marketing materials for HP mill”
- Manufacturing Engineering Intern* June 2006-June 2007  
Barnes Aerospace, Windsor Airmotive Division East Granby, CT
- Learned principles of aerospace component manufacture
  - Participated in 6 $\sigma$  process improvement events
  - Designed and implemented machine tooling fixtures
- Graduate Teaching Assistant* Fall 2009-Spring 2011  
ME 3057: Mechanical Systems Laboratory, Georgia Tech Atlanta, GA
- Proctored lab sections
  - Graded technical reports and writing tasks
- COMPUTER SKILLS**
- Matlab, Mathcad, NI LabVIEW, Codewarrior IDE, Fluent CFD Modeling, Gambit Meshing Software, Ansys, Solidworks, AutoCAD, MS Office, Mastercam (CNC Coding), Adobe Creative Suite, IDEAS Master Series 12 (Finite Element Analysis), Aspen Plus, Aspen Hysys, EES, LaTeX

**AWARDS &  
ACTIVITIES**

Volunteer Habitat for Humanity - Developed home plumbing demonstration  
Member American Society of Mechanical Engineers  
Student Member Acoustical Society of America  
Member Sigma Beta Tau Engineering Honor Society  
Member Order of the Engineer  
April 2007 - Passed Fundamentals of Engineering (FE/EIT) Exam  
2nd Place ASME Old Guard Technical Poster Presentation 2007  
1st Place Freshman Design Competition 2003 - Autonomous Search & Rescue Robot  
Avid guitarist for 14 years