

Kari L. Brown

(Né Kari L. Jordan)

kari@karilbrown.com

www.karilbrown.com

EDUCATION

2012 Ph.D. Mechanical Engineering-Engineering Mechanics (**3.43 GPA**)

Michigan Technological University (Houghton, MI)

Advisor: Sheryl Sorby, Ph.D.

2008 M.S. Mechanical Engineering (**3.57 GPA**)

Michigan Technological University (Houghton, MI)

Advisor: John W. Sutherland, Ph.D.

Significant progress towards Graduate Certificate in Sustainability

2006 B.S. Mechanical Engineering (**3.03 GPA**)

Michigan Technological University (Houghton, MI)

2005 International Senior Design Project

Engineering College of Copenhagen (Ballerup, Denmark)

TEACHING EXPERIENCE

Michigan Tech University Wide Courses

Instructor, UN1000 Frameworks for Success

Teaching Assistant, UN1000 Frameworks for Success

Houghton, MI

Aug 2008-Present

Aug 2006-Dec 2007

Michigan Tech Summer Youth Programs

Instructor, *Women/Explorations in Engineering*

Houghton, MI

May 2008-Aug 2008

Michigan Tech Dept. of Mechanical Engineering-Engineering Mechanics

Instructor, *Mechanical Engineering Explorations*

Houghton, MI

Aug 2008-Dec 2009

Michigan Tech Community Programs

Fitness Instructor

Houghton, MI

May 2006-Present

ADMINISTRATIVE EXPERIENCE

Michigan Tech Engineering Fundamentals Department

Academic Advisor

Houghton, MI

Aug 2009-Present

Michigan Tech Center for MultiCultural Affairs

Interim Coordinator of African American Student Support

Houghton, MI

July 2008-July 2009

Michigan Tech Dept. of Mechanical Engineering-Engineering Mechanics

Mechanical Engineering Learning Center Coordinator

Houghton, MI 49931

Jan 2007-July 2008

Michigan Tech ExSEL Program

Tutor/Peer Mentor Leader

Houghton, MI

Oct 2001-April 2006

Michigan Tech Youth Programs

Coordinator/Head Counselor

Houghton, MI

Oct 2001-Aug 2002

INDUSTRIAL EXPERIENCE

Educational Testing Services

GEM Fellow Intern

Princeton, NJ

July 2009-Sep 2009

National Assessment of Education Progress (NAEP) technological literacy assessment project.

High Tide Empowerment, LLC
Director of Marketing Technology
Technological marketing and advancement.

Cherry Hill, NJ
March 2009-Present

Marathon Petroleum Company

Ohio Refining Division Intern

Redesigned “out of spec” pressure vessels. Refinery budget write-ups and allocations, and equipment file updates.

Canton, OH
May 2005-Aug 2005

SC Johnson & Son, Inc.

Home Storage Manufacturing Intern

Designed seal bar cleaning tools; performed perforator roll wheel gear study and resin mass balance.

Saginaw, MI
May 2004-Aug 2004

Marathon Petroleum Company

Marketing & Terminal Engineering Intern

Executed pipeline hydraulic analysis project including Decision Support Package (DSP), cost estimation and bidding, Piping & Instrumentation Diagrams (P&ID's) and scheduling.

Ashland, KY
May 2003-Aug 2003

Michigan Tech Automotive Systems Enterprise

Effective Braking Indicator Project Leader

Developed and tested brake prototype using Unigraphics as well as project proposal and budget.

Houghton, MI
Aug 2002-May 2003

RESEARCH EXPERIENCE

Michigan Tech Dept. of Mechanical Engineering-Engineering Mechanics

Graduate Research Assistant/Scholar (Sustainable Futures Institute)

Engineering Education Research and Innovation Caucus, Sustainable Futures Caucus.

Houghton, MI 49931
May 2006-Present

Women in Engineering ProActive Network (WEPAN)

Digital Knowledge Center Temporary Researcher

Denver, CO
Dec 2008-Feb 2009

PUBLICATIONS

- J.W. Sutherland, J.L. Rivera, K.L. Brown, M. Law, M.J. Hutchins, T.L. Jenkins, K.R. Haapala, “Challenges for the Manufacturing Enterprise to Achieve Sustainable Development,” *Proceedings of the 41st CIRP Conference on Manufacturing Systems*, pp. 15-18 Tokyo, Japan, 2008
- Haapala, K., Brown, K.L., and Sutherland, J.W., “A Life Cycle Environmental and Economic Comparison of Clothes Washing Product-Service Systems,” *Transactions of the NAMRI/SME*, Volume 36, pp. 333-340, 2008
- Miller, M., Jordan, K., “Engineering Design Curricula Review,” *ASEE North Midwest Section Conference*, September 2007
- Sutherland, J.W. “Global Manufacturing and the Sustainability Challenge,” *Technology Century Magazine*, The Engineering Society of Detroit, December 2006-January 2007 (Contributed to manuscript preparation).
- Garcilaso, L., K. L. Jordan., Kumar, V., M. J. Hutchins, and J.W. Sutherland, “A Life-cycle Comparison of Clothes Washing Alternatives,” *Proceedings of CIRP International Conference on Life Cycle Engineering 2007*, Tokyo, Japan, June 2007

PRESENTATIONS

- “Assessing Technological Literacy in 8th and 12th Graders.” National Black Graduate Student Association North Central Regional Conference, Urbana, IL, October 2009
- “Technology Assessment Resources: Assessing Technological Literacy in Grades 8 and 12,” NAEP Intern Presentation, Educational Testing Services, Princeton, NJ, August 2009
- “Presenting Research at KCP Conferences,” 2008, King-Chavez-Parks Future Faculty Fellowship Luncheon, Michigan Technological University-Houghton, MI

- “Be Smarter: Planning for Graduate School at Michigan Tech,” 2008, Michigan Technological University-Houghton, MI
- “An Examination of the Barriers and Benefits of Implementing WEEE Recovery and Recycling”, 2008 King-Chavez Parks Future Faculty Fellowship Conference, Ferris State University, Big Rapids, MI
- “Sustainability Research Projects,” Graduate Student Council Research Colloquium 2007, Michigan Technological University, Houghton, MI
- “Why Study Abroad,” 2006, National Society of Black Engineers Region IV Fall Conference, Cincinnati, OH

KEYNOTE ADDRESSES

2009 Women In Engineering (WIE) Summer Youth Program Role Model Speaker
 2009 B.R.I.D.G.E. High School Commencement Speaker
 2008 Women In Engineering (WIE) Summer Youth Program Role Model Speaker

UNIVERSITY AND PROFESSIONAL SERVICE

National Secretary and Member, National Society of Black Engineers (NSBE)
 Member, Michigan Technological University Corporate Advisory Board
 Member, Michigan Technological University Career Center Student Advisory Board
 Member, American Society for Engineering Education (ASEE)
 Member, American Society of Mechanical Engineers (ASME)
 Advisor, National Society of Black Engineers Michigan Tech Chapter
 Youth Leader, Lighthouse United Pentecostal Church
 Paper Submission Reviewer: American Society for Engineering Education
 Paper Submission Reviewer: North American Manufacturing Research Conference

PROFICIENCIES

Matlab
 Microsoft Word, Excel, PowerPoint, Publisher, Visio, Project, Outlook, Access

AWARDS AND FUNDING

NSBE Scholars Fellow
 Michigan Technological University Proposal Incentive Award
 GEM Fellow
 Byron Fellowship Program
 King-Chavez-Parks Future Faculty Fellow

HONORS

2009 National Society of Black Engineers Academic Pyramid of Excellence
 2008 National Society of Black Engineers Academic Pyramid of Excellence
 2008 Dorothy Height Award for Service
 2003 Black Student Organizations (BSO) Outstanding Student Award

INTERNATIONAL TRAVEL EXPERIENCE

Africa (Ghana)
 Asia (China)
 Europe (Denmark, Sweden, England)
 North America (Canada)
 South America (Chile, Argentina)