

# Joi Mondisa

2785 IOE  
1205 Beal Avenue  
Ann Arbor, MI 48109  
jmondisa@umich.edu  
734-647-8720

## Abilities

- **Researcher:** Interviewing, data collection, analysis, and writing skills in qualitative and quantitative research
- **Educator:** In-classroom teaching, online teaching, curriculum development and educational workshop and seminar instruction
- **Advocate:** Public engagement through workshops and community outreach programs

## Education

**Ph.D., Engineering Education** August 2015  
Purdue University, West Lafayette, IN  
Thesis: *In the Mentor's Mind: Examining the Experiences of African-American STEM Mentors in Higher Education*  
Advisor: Dr. Robin S. Adams

**Master of Science in Industrial Engineering** December 2014  
Purdue University, West Lafayette, IN  
Thesis: *Designing Sustainable Mentoring Programs: Examining the Role of Social Community in the STEM College Student Experience*  
Advisor: Dr. Sara A. McComb

**Master of Business Administration** August 2010  
Governors State University, University Park, IL

**Bachelor of Science in General Engineering** May 2001  
University of Illinois at Urbana-Champaign

## Research Interests

- Mentoring underrepresented populations in STEM
- Mentoring experiences and intervention programs in higher education
- Mentoring in global contexts
- Designing and assessing learning experiences
- Resilience, grit, and persistence in engineering education
- Engineering Management

## Research Experience

**Assistant Professor, Industrial and Operations Engineering** 09/16 – Present  
University of Michigan, Ann Arbor, MI

- Conducts research focused on mentoring; STEM mentoring experiences of underrepresented populations in higher education; how mentoring intervention programs promote the persistence and success of undergraduates in STEM majors; and designing learning experiences.
- Teaches undergraduate and graduate courses in industrial engineering and engineering education.

**Postdoctoral Research Fellow, Industrial and Operations Engineering** 09/15 – 08/16  
University of Michigan, Ann Arbor, MI

- Conducted research using effective project management skills and actively seeks out collaborations with faculty and administrators on projects focused on teamwork, mentoring, diversity, and inclusion.

**Graduate Research Assistant, Engineering Education** 08/12 – 08/14  
Purdue University, West Lafayette, IN

- Researched and compiled information on multidisciplinary engineering education topics and wrote research papers that communicated research details, results and analysis.
- Actively sought collaborators as evidenced by publication of multiple conference proceedings and journal articles.

**STEM Education Research Intern** 06/14 – 08/14  
Cyber Innovation Center, Louisiana Tech University, Bossier City, LA

- Wrote and developed engineering problem-based curricula for 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> grade students.
- Exhibited diverse communication skills as an assistant facilitator of professional development workshops for middle and high school teachers.

**Summer Scholar Intern, ADVANCE Program** 05/13 – 08/13  
National Science Foundation, Arlington, VA

- Conducted a portfolio analysis of the NSF ADVANCE program and succinctly synthesized information for program officers' use in budgetary planning and projection meetings.
- Presented portfolio results and insights to program officers and managers in team meetings and prepared detailed evaluation and assessment reports after program site visits.

## **Teaching Experience**

**Adjunct Faculty, Engineering Technology** 08/08 – 08/15  
Triton College, River Grove, IL

- Demonstrated strong communication and teaching skills as evidenced by the ability to effectively teach diverse populations at varying levels of understanding in lean manufacturing (ENT 103 Introduction to Lean Manufacturing and Automation) and physics (ENT 123 Technical Physics) courses.

**Adjunct Faculty, Business Administration** 05/15 – 06/15  
Governors State University, University Park, IL

- Instructed STAT 2700 Statistics for Management summer course featuring applications of statistics to business problems.
- Wrote and developed curriculum and syllabus and implemented group work activities and discussions to engage students in active learning (i.e. problem- and project-based learning activities).

**Adjunct Faculty, Business Administration** 08/11 – 05/12  
Ivy Tech Community College, Lafayette, IN

- Instructed BUSN 101 Introduction to Business Administration course and facilitated class discussions via Blackboard's online learning management system.
- Engaged students in long-distance team projects to help them develop management and teamwork skills.

## **Professional Experience**

**Associate Technical Editor** 05/06 – 08/11  
Goodheart-Willcox Publisher, Inc., Tinley Park, IL

- Exhibited excellent project management skills as evidenced by initiating, planning, and developing editing projects of secondary, post-secondary, and vocational manuscripts, text, and artwork in the areas of technology, programmable logic controllers, and automotive systems.

**Senior Engineer of Operations**

02/04 - 05/06

La Petite Academy Corporate Headquarters, Chicago, IL

- Effectively managed and assessed profit & loss and market information for special projects for the company which was comprised of over 600 business units with total revenues of \$120 million.
- Trained 200 field personnel on new programs, cost savings opportunities, and company information and directed assessment teams regarding field improvement programs.

**Corporate Engineer – Sales & Applications**

07/02 - 02/04

THK America, Inc. - Linear Motion Systems Manufacturer, Schaumburg, IL

- Organized and provided sales and technical support information to customers in addition to application engineering duties (i.e. sizing linear systems for engineering clients).
- Managed and trained 30 staff personnel about linear system products.

**Mechanical Engineer - Mechanical Applications**

06/01 - 07/02

THK America, Inc. - Linear Motion Systems Manufacturer, Schaumburg, IL

- Applied analytical skills and conducted applications and projects for over 75 diverse companies and trained 10 sales administrators on product, engineering, and sales topics.

**Publications, Seminars, Panels, and Posters****Peer-Reviewed Journal Articles**

1. **Mondisa, J.L.**, in review. Understanding the Undergraduate, Graduate, and Professional Experiences of Minority African-American STEM Mentors.
2. **Mondisa, J.L.**, in review. Mentoring Approaches: Examining the Perspectives of African-American STEM Mentors.
3. **Mondisa, J.L.** & McComb, S. A., in review. Examining the Differences in the Experiences of STEM Minority Mentoring Program (MMP) Participants Using a Social Community Model.
4. **Mondisa, J.L.** & McComb, S. A. (2015). Social Community: A Mechanism to Explain the Success of STEM Minority Mentoring Programs. *Mentoring & Tutoring: Partnership in Learning*, 23(2), 149-163. doi:10.1080/13611267.2015.1049018

**Peer-Reviewed Conference Proceedings**

1. **Mondisa, J.L.**, Millunchick, J., Davis, C., Koch, D. (2016). The University of Michigan's M-STEM Academies Program: Examining the Social Community of Future Engineers, in *2016 Frontiers in Education Conference Proceedings*, October 12-15, 2016, Erie, PA.
2. **Mondisa, J.L.** (2016). Capturing Our Stories in Our Voices: Constructing a Narrative Analysis Study of American-American STEM Mentors, in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 26-29, 2016, New Orleans, LA.
3. London, J.S., **Mondisa, J.L.**, Fayyaz, F., & Jones, T. (2016). Making Learning Whole: Toward the Development of An Instrument Operationalizing Perkins's Model, in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 26-29, 2016, New Orleans, LA.
4. **Mondisa, J.L.**, London, J.S., & Pilotte, M. (2016). Work in Progress-The Relationship between Resilience, Grit, and Persistence in Engineering Education in *Proceedings of the Industrial and Systems Engineering Research Conference (ISERC)*, May 21-May 24, 2016, Anaheim, CA.

5. **Mondisa, J.L.** (2015). Increasing Diversity in Higher Education by Examining African-American STEM Mentors' Mentoring Approaches, in *Proceedings of the World Engineering Education Forum*, September 20-24, 2015, Florence, Italy.
6. **Mondisa, J.L.** Adams, R.S. & Brown, C. (2015). Mentoring African-American Science, Technology, Engineering, and Mathematics (STEM) Undergraduates: An African-American STEM Mentor's Perspective, in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 14-17, 2015, Seattle, WA.
7. **Mondisa, J.L.** & Corbett, K. (2015). Global Earthquake Engineering: A STEM EDA Lesson and Activity (Curriculum Exchange), in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 14-17, 2015, Seattle, WA.
8. **Mondisa, J.L.** (2014). Mentoring Minorities: Examining Mentoring from a Race and Gender Lens, in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 15-18, 2014, Indianapolis, IN.
9. **Mondisa, J.L.** & McComb, S. A. (2014). Social Community: Understanding Students' Connectedness to Promote Student Success in *Proceedings of the Industrial and Systems Engineering Research Conference (ISERC)*, May 31 – June 3, 2014, Montreal, Canada.
10. **Mondisa, J.L.**, Siddiqui, J., Chua, M., Adams, R. S., Vanasupa, L., & Herter, R. (2013). Lessons Learned from Others' Stories: How Changemakers' Stories Changed Us in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 23 – 26, 2013, Atlanta, GA.
11. **Mondisa, J.L.** & Cox, M. F. (2012). The Meyerhoff Scholars Program and STEM Policy: How a Mentoring Intervention Program Relates to STEM Policy in *Proceedings of the University of New Mexico at Albuquerque Mentoring Institute Conference*, October 24 – 26, 2012, Albuquerque, NM.
12. Adams, R.S., **Mondisa, J.L.**, Sambamurthy, N., Chua, M., Denick, D., & Siddiqui, J. (2012, October). Work in progress: In their own words—how “changemakers” talk about change. In *2012 Frontiers in Education Conference Proceedings* (pp. 1-2). IEEE.
13. **Mondisa, J.L.**, Zephirin, T., Purzer, S., Fila, N. D., & Dringenberg, E. (2012, October). Work in progress: A case study of the types and frequencies of conflict in engineering design dyads. In *2012 Frontiers in Education Conference Proceedings* (pp. 1-2). IEEE.

#### **Invited Seminars and Panels**

1. **Mondisa, J.L.**, “Our Experiences in Our Voices: The Undergraduate, Graduate, and Professional Experiences of African-American STEM PhD Mentors” accepted for panel presentation at the Keeping Our Faculty of Color Symposium, University of Minnesota, April 17 –April 19, 2016.
2. **Mondisa, J.L.**, “Navigating After the Maize: The Postdoctoral Experience,” panelist at the Navigating the Maize: A Conference on Strategic Alliances and Partnerships for Institutional Transformation in Graduate Education, University of Michigan, March 18, 2016.
3. **Mondisa, J.L.** “Examining the Experiences of African-American STEM Mentors in Higher Education.” The Illinois Foundry for Innovation in Engineering Education at the University of Illinois at Urbana-Champaign, Urbana, IL. 20 November 2015.
4. **Mondisa, J.L.** “STEM Explore Curriculum: Earthquakes.” The Education Discovery Forum at the Shreveport Convention Center, Shreveport, LA. 14-18 July 2014.
5. **Mondisa, J.L.** “Reflections on the Merit Scholars Workshop Program: The Role of Social Community in Increasing the Retention of African-American STEM Undergraduates.” The Urban Education Institute at North Carolina A&T University, Greensboro, NC. 8 March 2013.

## Posters

1. **Mondisa, J.L.** & Mitchneck, B., “Examining the Award Composition of an NSF Program: A Portfolio Analysis of the ADVANCE Program” accepted for presentation at the American Association for the Advancement of Science (AAAS) Annual Meeting, Chicago, IL, February 13-February 17, 2014.
2. **Mondisa, J.L.** & McComb, S. A. “Differences in the Perceptions of Social Community by Engineering Undergraduate and Graduate Students” accepted for presentation at The American Association for the Advancement of Science (AAAS) Emerging Researchers National Conference, February 28 - March 2, 2013. (**Awarded 1<sup>st</sup> place for graduate poster presentation in the social and behavioral sciences category**).

## Grant Proposals

1. **PENDING - National Science Foundation, NSF 15-585 DUE Improving Undergraduate STEM Education (IUSE), University of Michigan, Ann Arbor, MI, 09/01/16-08/31/19.** *Examining Social Community Within and Across Institutions’ Mentoring Programs*, co-PI, Funding: \$458,307.
2. **Open Meadows Foundation, the No Longer Forgotten Network, Homewood, IL, 11/01/16-11/01/17.** *Empowering Young Girls’ Self-Perceptions through Storytelling: A Publication and Pilot of a Graphic Book*, PI, Funding: \$650.

## Video Appearance

- **Coordinator in “GADgET Girls: STEM Futures”**, a 2015 documentary about the GADgET girls 2012 summer camp at Triton College, River Grove, IL: <http://www.bivouacfilms.com/>.

## Fellowships

- **Bilsland Dissertation Fellowship, Purdue University:** a Graduate School fellowship which provides support to an outstanding College of Engineering Ph.D. candidate in the final year of doctoral degree completion. (*Academic year 2014 - 2015*)
- **Ross Graduate Fellowship, Purdue University:** a Graduate School fellowship which provides support to an outstanding first year Ph.D. student. (*Academic year 2011 - 2012*)

## Service and Outreach Roles

- **Reviewer**, *Journal of Engineering Education*, March 2016 – Present
- **Reviewer**, *IEEE Transactions on Education*, January 2016 – Present
- **President and co-founder**, No Longer Forgotten Network, 501c3 non-profit organization, 08/06–Present
- **Reviewer**, *Frontiers in Education (FIE) Conference, Engineering Education Division*, October 12-15, 2016, Erie, PA.
- **Reviewer**, *Annual Industrial and Systems Engineering Research (ISERC) Conference*, Engineering Education Research Track, May 21-24, 2016, Anaheim, CA.
- **Reviewer**, Minorities in Engineering Division, *Annual American Society of Engineering Education (ASEE) Conference, Minorities in Engineering Division*, June 26-29, 2016, New Orleans, LA.
- **Presenter**, Martin Luther King Jr. Sr. High School, the University of Michigan’s Center for Educational Outreach Wolverine Express Program, Detroit, MI, October 29, 2015.
- **Volunteer**, American Association of University Women (AAUW) Tech Savvy STEM Conference for Girls, Triton College, River Grove, IL, March 21, 2015.
- **Reviewer**, Minorities in Engineering Division, *Annual American Society of Engineering Education (ASEE) Conference, Minorities in Engineering Division*, June 14 – 17, 2015, Seattle, WA.

- **Reviewer and Moderator**, *Annual American Society of Engineering Education (ASEE) Conference, Minorities in Engineering Division*, June 15-18, 2014, Indianapolis, IN.

## **References**

Robin Adams, PhD  
Major Professor  
Associate Professor, Engineering Education  
Purdue University  
rsadams@purdue.edu

Sara McComb, PhD  
Master's Thesis Advisor  
Associate Professor, Nursing & Industrial  
Engineering  
Purdue University  
sara@purdue.edu

Ruth Streveler, PhD  
Professor  
Associate Professor, Engineering Education  
Purdue University  
rastreve@purdue.edu

Antigone Sharris  
Supervisor  
Chair & Faculty, Engineering Technology  
Triton College  
antigonesharris@triton.edu