# Joi-Lynn Mondisa

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# **Education**

Purdue University	Ph.D.	2015	<b>Engineering Education</b>
Purdue University	M.S.	2014	Industrial Engineering
Governors State University	M.B.A.	2010	<b>Business Administration</b>
University of Illinois at Urbana-Champaign	B.S.	2001	General Engineering

#### **Interests**

#### Research

- Mentoring minoritized populations in STEM
- Mentoring experiences, intervention programs
- Design and assessment of learning experiences

# **Teaching and Professional**

- Lean operations and processes
- Lean manufacturing and Toyota Kata
- Engineering management

# **Research and Professional Experience**

2016 -	Assistant Professor, Industrial and Operations Engineering, University of Michigan
2015 - 2016	Postdoctoral Fellow, Industrial and Operations Engineering, University of Michigan
2015 - 2015	Adjunct Faculty, Business Administration, Governors State Univ., University Park, IL
2014 - 2014	STEM Education Research Intern, Louisiana Tech University, Ruston, LA
2014 - 2012	Graduate Research Assistant, Engineering Education, Purdue University, IN
2013 - 2013	Summer Scholar Intern, QEM Network, National Science Foundation
2012 - 2011	Adjunct Faculty, Business Administration, Ivy Tech Community College, Lafayette, IN
2012 - 2008	Adjunct Faculty, Engineering Technology, Triton College, River Grove, IL
2011 - 2006	Associate Technical Editor, Goodheart-Willcox Publisher, Inc., Tinley Park, IL
2006 – 2004	Senior Engineer of Operations, La Petite Academy Corporate Headquarters, Chicago, IL
2004 - 2006	Corporate Engineer, THK America, Inc Systems Manufacturer, Schaumburg, IL
2001 - 2002	Mechanical Engineer, THK America, Inc Systems Manufacturer, Schaumburg, IL

#### Honors, Awards, and Nominations

- Advising Council UM Outstanding Advisor Award Nomination, University of Michigan Ann Arbor. This award recognizes undergraduate and graduate advisors on the University of Michigan Ann Arbor campus who go above and beyond to support students by providing information and advice, supporting their well-being, and fostering their academic and personal success.
- Journal of Engineering Education (JEE) Star Reviewer Award. This award recognizes the top 1% of people who review for JEE annually.
- 2022 **Sister Mary Ambrosia Fitzgerald Mentoring Award**, University of Michigan Ann Arbor. This award recognizes individuals who have served as an exemplar of formal or informal mentorship of STEM students.
- The Institute for Industrial and Systems Engineering (IISE) UPS Minority
  Advancement Award. This award recognizes organizations or individuals that, through innovative means, have developed programs or projects directed to the advancement of women, minorities or individuals with disabilities in the field of industrial engineering.
- 2020 *College of Business Alumni Hall of Achievement*, Governors State University. This award recognizes a record of professional and personal achievements.

- 2020 *MLK Spirit Faculty Award*, University of Michigan Ann Arbor. Awarded for outstanding leadership and service achievements and commitment to social justice, diversity, equity, and inclusion.
- **Creativity, Daring, and Innovation Award**, University of Michigan Ann Arbor for achievements that embody a forward-thinking approach to fostering College values and building its culture.
- 2018 **Dr. Willie Hobbs Moore Aspire, Advance, Achieve Mentoring Award**, University of Michigan Ann Arbor, for an individual who has served as a formal or informal mentor to students.
- 2014 *Bilsland Dissertation Fellowship*, Purdue University, Graduate School fellowship which provides support to an outstanding College of Engineering Ph.D. candidate in the final year of doctoral degree completion.
- 2011 **Ross Graduate Fellowship**, Purdue University: A Graduate School fellowship which provides support to an outstanding first year Ph.D. student.

# <u>Professional Memberships</u>

American Society for Engineering Education (ASEE)

Institute of Industrial & Systems Engineers (IISE)

International Mentoring Association (IMA)

The Institute for Operations Research and the Management Sciences (INFORMS)

### Thesis topics

- Ph.D.: In the Mentor's Mind: Examining the Experiences of African-American STEM Mentors in Higher Education (Robin Adams *Chair*; Cordelia Brown, Joyce Main, Alice Pawley)
- M.S.: Designing Sustainable Mentoring Programs: Examining the Role of Social Community in the STEM College Student Experience (Sara McComb *Chair*; Robin Adams, Steven Landry)

# <u>Publications (underlined = graduate student; \* = undergraduate student)</u> Peer-Reviewed Articles:

- 1. <u>Jackson, J.L., Pearson, M.</u>, Huang-Saad, A., & **Mondisa, J.-L.** (Accepted, in press). Innovating Innovation: Advancing Racial Equity in STEM Entrepreneurship Programming. *Journal of Women and Minorities in Science and Engineering*.
- 2. <u>Bork, S. J.</u> & **Mondisa**, **J.-L.** Engineering Graduate Students' Mental Health: A Scoping Literature Review. *Journal of Engineering Education*, *111*(3), 665-702. https://doi.org/10.1002/jee.20465
- 3. Diggs, A. B. & **Mondisa**, **J.-L.** (2022). STEM Future Faculty Development Programs for Minoritized Populations: Understanding Characteristics and Opportunities. *The Journal of Faculty Development*, 36(1), 15-22.
- 4. **Mondisa**, **J.-L.** & Adams, R.S. (2022). A Learning Partnerships Perspective of How Mentors Help Protégés Develop Self-Authorship. *Journal of Diversity in Higher Education*, *15*(3), 337-353. https://doi.org/10.1037/dhe0000291
- 5. <u>Washington, V.</u> & **Mondisa, J.-L.** (2021). The Social Community Experiences of Engineering Undergraduates in a Mentoring Program. *Journal of Engineering Education*, 110(4), 1-23. https://doi.org/10.1002/jee.20422
- 6. **Mondisa**, **J.-L. &** Main, J. (2021). Mentors' Perceptions of their African-American Undergraduate Protégés' Needs and Challenges. *Journal of Negro Education*, 90(2), 195-210. https://www.jstor.org/stable/10.7709/jnegroeducation.90.2.fm

- 7. Tuladhar, A.\*, Queener, C.\*, **Mondisa, J.-L.** & Okwudire, C. (2021). Informal community spaces, mentoring and representation: unpacking factors that influence African American engineering undergraduates. *International Journal of Mentoring and Coaching in Education*, *10*(3), 317-338. https://doi.org/10.1108/IJMCE-06-2020-0032
- 8. **Mondisa**, **J.-L.** (2021). Examining the Academic and Professional Experiences of African-American STEM PhD Mentors. *Journal of Negro Education*, 90(1), 108-122. https://www.jstor.org/stable/10.7709/jnegroeducation.90.1.0108.
- 9. Moreno-Hernandez, A. & Mondisa, J.-L., (2021). Differences in the Self-Perceptions of Resilience, Grit, and Persistence among First-Year Engineering Undergraduates. *International Journal of Engineering Education*, 37(3), 701-711. https://www.ijee.ie/1atestissues/Vol37-3/12\_ijee4061.pdf
- 10. **Mondisa**, **J.-L.**, Packard, B.W.-L., & Montgomery, B. L. (2021). Understanding what STEM mentoring ecosystems need to thrive: A STEM-ME framework. *Mentoring & Tutoring: Partnership in Learning*, 29(1), 110-135, https://doi.org/10.1080/13611267.2021.1899588
- 11. **Mondisa**, **J.-L.** (2020). The Role of Social Capital in African-American STEM Mentoring Relationships. *Journal of Women and Minorities in Science & Engineering*, 26(2), 125-153. http://dx.doi.org/10.1615/JWomenMinorScienEng.2020022267
- 12. Liker, J., Lander, E., & **Mondisa**, **J.-L.**, (2019). Liker, J., Lander, E., & Mondisa, J.L., (2019). Unpacking The Possibilities. *Lean & Six Sigma Review*, 19(1), 10–17.
- 13. **Mondisa**, **J.-L.** (2018). Examining the Mentoring Approaches of African-American Mentors. *Journal of African American Studies*, 22(4), 293-308. doi:10.1007/s12111-018-9411-y
- 14. **Mondisa**, **J.-L.** & McComb, S. A. (2018). The Role of Social Community and Individual Differences in Minority Mentoring Programs. *Mentoring & Tutoring: Partnership in Learning*, 26(1), 91-113, doi: 10.1080/13611267.2018.1445432
- 15. **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 and Presentations:**

- 1. <u>Jackson, J.L.</u>, Gilbert-Sovern, J.\*, Huang-Saad, A., & **Mondisa, J.-L**. (2022). Work in Progress: Examining Diversity, Equity, and Inclusion in Entrepreneurship Programming. *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, July 26-29, 2022. Minneapolis, MN.
- 2. <u>Bork, S.J.</u>, Young, N., & **Mondisa, J.-L**. (2022). Exploring the Relationship Between Culture and Science, Engineering, and Mathematics Graduate Students' Mental Health (Full Paper). *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, July 26-29, 2022. Minneapolis, MN. (Awarded ASEE Best Student Paper Award in the Graduate Student Division).
- 3. Davuluri, V.\*, <u>Vempala, V.</u>, & **Mondisa, J.-L.** (2022). Best Practices in Building Relationships and Partnerships Between Community Colleges, Universities, and Organizations (Work In Progress). *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, July 26-29, 2022.
- 4. <u>Bork, S.J., Clarke, N.</u>, & **Mondisa, J.-L**. (2022). Mentoring Approaches that Support Minoritized STEM Undergraduates: A Pilot Study (EBR). *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, July 26-29, 2022.

- 5. Ericson, B., Garcia, P., & **Mondisa**, **J.-L.** (2022). Lessons Learned from Scaling Sisters Rise Up in *Proceedings of the 53rd ACM Technical Symposium on Computer Science Education 2022*, March 3-5, 2022. Providence, RI, USA. ACM, New York, NY, USA. https://doi.org/10.1145/3478431.3499351
- 6. Tuladhar, A.\*, Queener, C.\*, **Mondisa, J.-L.**, & Gosha, K. (2022). Broadening Participation through Information: A Synthesis of Resources for Research and Practice in Computing in *Proceedings of the Collaborative Network for Engineering and Computing Diversity (CONECD)*, February 20-23, 2022, New Orleans, LA.
- 7. <u>Bowen, C.</u>, Valle, J., **Mondisa, J.-L.**, Johnson, A., Sakamoto, J., & Powell, K. (2021). "The Undergraduate Engineering Collaborative Growth Series": A Diversity, Equity, and Inclusion Program Supporting the Empowerment of Marginalized Students in *2021 Frontiers in Education Conference Proceedings*, October 13-16, 2021, Lincoln, NE.
- 8. <u>Clarke, N., Mondisa, J.-L.</u>, & Gosha, K. (2021). The Role of E-Mentoring in the African American Higher Education Experience (Work in Progress) in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, July 26-29, 2021, Virtual Due to COVID-19.
- 9. <u>Jackson, J.L.</u>, Huang-Saad, A., & **Mondisa, J.-L**. (2021). The Urgency of Intersectionality: A Review of Racialized Experiences in STEM Entrepreneurship in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, July 26-29, 2021, Virtual Due to COVID-19.
- 10. <u>Bork, S.</u> & **Mondisa, J.-L**. (2021). Using Photovoice to Examine the Mental Health Experiences of Engineering Graduate Students during COVID-19 (Work in Progress) in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, July 26-29, 2021, Virtual Due to COVID-19.
- 11. Garcia, P., Perez, M., <u>Bork, S.J.</u>, Farrell, D., Ericson, B., & **Mondisa**, **J.-L.** (2021). Supporting Mutually Beneficial Near-Peer Mentoring Relationships Within Computing Education Programs in *Proceedings of the RESPECT 2021: IEEE STCBP Conference for Research on Equity and Sustained Participation in Engineering, Computing, and Technology*, May 23-27, 2021, Virtual Due to COVID-19.
- 12. <u>Kwak, S.</u> & **Mondisa**, **J.-L**. (2021). A Mixed Methods Study of Engineering Undergraduates' Adaptive Learning Experiences in *Proceedings of the 8<sup>th</sup> International Conference on Educational Technologies (ICEduTech 2021*), March 3-5, 2021, Virtual Due to COVID-19.
- 13. <u>Kwak, S.</u> & **Mondisa**, **J.-L**. (2020). Artificial Intelligence and Its Applications in Higher Education: A Synthesis in *Proceedings of the 2020 Institute of Industrial and Systems Engineers (IISE) Annual Conference*, Nov 1-3, 2020, Virtual Due to COVID-19.
- 14. <u>Jackson, J.L.</u>, London, J.S., **Mondisa, J.-L**., & Adams, S.G. (2020). Mentoring Among African American Women in the Engineering Academy in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 22-26, 2020, Virtual Due to COVID-19.
- 15. <u>Bork, S.</u> & **Mondisa, J.-L**. (2020). Validation of an Instrument to Measure Science, Engineering, and Mathematics Graduate Students' Mental Health (Work in Progress) in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 22-26, 2020, Virtual Due to COVID-19.
- 16. Queener, C.\*, **Mondisa**, **J.-L**., Davis, D., & Blocker, R.C. (2020). The Role of Connectedness for Minoritized Students at a Mentoring Conference in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 22-26, 2020, Virtual Due to COVID-19.

- 17. <u>Washington, V.</u> & **Mondisa**, **J.-L.**, INFORMS 2019. Enhancing Engineering Undergraduates Social Community. INFORMS Annual Conference 2019, October 23, 2019, Seattle, WA.
- 18. <u>Kwak, S.J.</u> & **Mondisa**, **J.-L.** "Artificial Intelligence and Its Applications in Higher Education: A Synthesis". INFORMS Annual Conference 2019, October 23, 2019, Seattle, WA.
- 19. Finelli, C. & **Mondisa**, **J.-L.** (2019). An innovative graduate course in engineering education research: How well does it meet course goals?, in *2019 Frontiers in Education Conference Proceedings*, October 12-15, 2019, Cincinnati, OH.
- 20. <u>Bork, S.</u>, Tuladhar, A.\*, & **Mondisa, J.-L**. (2019). Methods for Conducting a Scoping Literature Review on Engineering Graduate Student Mental Health (Work in Progress) in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 15-19, 2019, Tampa, FL.
- 21. <u>Bork, S.</u> & **Mondisa, J.-L**. (2019). Science, Engineering, and Mathematics Graduate Student Mental Health: Insights from the Healthy Minds Network Dataset in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 15-19, 2019, Tampa, FL. (Awarded ASEE Best Student Paper Award in the Graduate Student Division).
- 22. Tarnowski, M.\*, Monroe, C.\*, & **Mondisa**, **J.-L.**, Huang-Saad, A. (2018). "Seeking to Unpack the Biomedical Engineering Identity". Biomedical Engineering Society 2018, October, 19 2018, Atlanta, GA.
- 23. Whipple, J.\*, Prater, S.\*, & **Mondisa**, **J.-L.** (2018). Examining Engineering Experiences and Attitudes of URM Summer Camp Participants, in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 23-27, 2018, Salt Lake City, UT.
- 24. Diggs, A. & **Mondisa**, **J.-L.** (2017). Toward A Systematic Review of the Preparing Future Faculty Program Initiatives, in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 25-28, 2017, Columbus, OH.
- 25. **Mondisa**, **J.-L.** & Chelst, K. (2017). Developing an Integrated Mathematics and Human Factors Engineering Curriculum for Middle School Students, in *Proceedings of the American Society of Engineering Education (ASEE) Zone II Conference*, *March 2-5*, 2017, San Juan, PR.
- 26. **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.
- 27. 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.
- 28. **Mondisa**, **J.-L.** (2016). Capturing Our Stories in Our Voices: Constructing a Narrative Analysis Study of African-American STEM Mentors, in *Proceedings of the Annual American Society of Engineering Education (ASEE) Conference*, June 26-29, 2016, New Orleans, LA.
- 29. **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.

- 30. **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.
- 31. **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.
- 32. **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.
- 33. **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.
- 34. **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.
- 35. **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.
- 36. **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.
- 37. 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. October 3 6, 2012, Seattle, WA.
- 38. **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. October 3 6, 2012, Seattle, WA.

# **Conference Posters:**

- 1. Whipple, J.\*, Prater, S.\*, & **Mondisa**, **J.-L.** (2018). "Examining the Engineering Attitudes and Experiences of Wolverines Pathways Participants" presented at the Emerging Researchers National Conference, Washington, D.C. 27 Feb 2018.
- 2. Whipple, J. \*, Prater, S.\*, & **Mondisa**, **J.-L.** (2017). "Examining the Engineering Attitudes and Experiences of Wolverines Pathways Participants" presented at the Summer Research Opportunities Program (SROP) at the University of Michigan. 27 July 2017.
- 3. Moreno-Hernandez, A., Washington, V., & Mondisa, J.-L. (2017). "Exploring the Resilience, Grit, and Persistence of First-Year Engineering Undergraduates" presented at the Summer Research Opportunities Program (SROP) at the University of Michigan. 27 July 2017.
- 4. Diggs, A., **Mondisa**, **J.-L.**, & Scott, R. (2016). "Assessing Intervention Commonalties of the Preparing Future Faculty Program Initiatives" presented at the Center for Research on Teaching and Learning (CRLT) Engineering Education Poster Fair at the University of Michigan. 3 March 2017.

- 5. **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.
- 6. **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 1st place for graduate poster presentation in the social and behavioral sciences category).

Teaching Experience				
University of Michigan, Ann Arbor, MI				
<ul> <li>Continuous Improvement and Operations Management</li> </ul>	(ENGR 100)	2017, 2017, 2020, 2021		
<ul> <li>Lean Thinking in Manufacturing and Systems</li> </ul>	(IOE 591)	2018, 2019		
<ul> <li>Foundations in Engineering Education Research (EER)</li> </ul>	(EER 601)	2018		
<ul> <li>Theoretical and Conceptual Frameworks in EER</li> </ul>	(EER 602)	2019, 2021		
<ul> <li>Lean Principles and Scientific Thinking in Organizations</li> </ul>	(IOE 525)	2020		
<ul> <li>Engineering Economic Decision Making</li> </ul>	(IOE 201)	2020, 2021, 2022		
Governors State University, University Park, IL • Statistics for Management	(STAT 2700)	2015		
Ivy Tech Community College, Lafayette, IN				
• Introduction to Business	(BUSN 101)	2011, 2012		
Triton Community College, River Grove, IL				
<ul> <li>Introduction to Lean Manufacturing and Automation</li> </ul>	(ENT 103)	2008-2012		
Technical Physics Fall 2010	(ENT 123)	2008, 2009		