

## FACULTY VITA

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Date: 22 April 2024

Name: Michelle Stallard

Department: Industrial and Manufacturing Systems Engineering

Current Rank/Title: Assistant Teaching Professor

- **BACKGROUND, PROFESSIONAL EXPERIENCE AND RECOGNITIONS**

- A. Education

- Master of Science, Iowa State University, Industrial and Manufacturing Systems Engineering 2016
    - Bachelor of Science, Iowa State University, Industrial and Manufacturing Systems Engineering, Technical Sales Minor 2015

- B. Academic Appointments

- Assistant Teaching Professor, Industrial and Manufacturing Systems Engineering, Iowa State University, August 2023 – Present.
    - Technical Editor, Industrial and Manufacturing Systems Engineering, Iowa State University, May 2016 – December 2018
    - Graduate Teaching Assistant, Industrial and Manufacturing Systems Engineering, Iowa State University, January 2016 – June 2016
    - Graduate Research Assistant, Industrial and Manufacturing Systems Engineering, Iowa State University, August 2013 – May 2016

- C. Other Professional Employment

- VP Global Head of Value Stream Integration, Rolls-Royce, December 2021 – Present
    - F405 Maintenance, Repair and Overhaul Site Manager, Rolls-Royce, August 2021 – November 2021
    - Logistics Operations Manager Indianapolis Campus, Rolls-Royce, January 2020 – November 2020
    - Global Defense Manufacturing, Assembly, and Test Project Lead and Training Center Manager, Rolls-Royce, January 2019 – January 2020
    - Turbines Production Leader, Rolls-Royce, January 2018 – January 2019
    - Structures and Transmissions Buyer, Rolls-Royce, July 2017 – January 2018
    - Compressors Manufacturing Engineer, Rolls-Royce, January 2017 – July 2017
    - Rotatives Material Resource Planning Controller, Rolls-Royce, July 2016 – January 2017
    - Defense Purchasing Continuous Improvement Leader, Rolls-Royce, May 2016 – January 2017
    - Manufacturing Services Continuous Improvement Intern, Rolls-Royce, May 2015 – August 2015
    - Product Supply Manufacturing Project Management Intern, Procter and Gamble, May 2014 – August 2014
    - Industrial Engineering Production Intern, Space Exploration Technologies, January 2104 – April 2014
    - Gas and Cooling Systems Strategic Procurement Intern, Whirlpool Corporation, May 2013 – August 2013

- New Model Planning Engineering Intern, Whirlpool Corporation, January 2012 – August 2012

#### D. Honors and Awards

- Don Grant Award for Excellence in Undergraduate Education, Industrial and Manufacturing Systems Engineering, Iowa State University, 2024. For recognition of a faculty member that graduating seniors feel provided them with excellent undergraduate education.
- Lightning Award, Rolls-Royce, 2019. For exceptional commitment to the development of leaders in manufacturing operations through the launch and sustainment of the Operations Leadership Academy for the Americas Region.
- Graduate Research Excellence Award, Iowa State University, 2016. Mentor Dr. Frank Peters. For outstanding research accomplishments as documented in their theses including the development of a well written product.
- Undergraduate Distinction: Magna Cum Laude, 2015. For
- Engineering Honors Program Best Poster Presentation, *Variations in Resume Design*, 2014. Mentor Dr. Charles Kostelnick. For best reviewed presenter as evaluated by the College of Engineering Honors Program Committee.

- **SCHOLARSHIP AND RESEARCH/CREATIVE ACTIVITIES**

#### A. Scholarship

# Denotes any publication derived from the candidate's thesis/dissertation.

+ Denotes student co-author.

- Articles in Peer-Reviewed Journals – In Print or Accepted
  - Stallard (Voelker), M. M., MacKenzie, C. A., & Peters, F. E. (2018). "A probabilistic model to estimate visual inspection error for metalcastings given different training and judgment types, environmental and human factors, and percent of defects." *Elsevier Journal of Manufacturing Systems*, 48, 97-106. <https://doi.org/10.1016/j.jmsy.2018.07.002>
  - Stallard (Voelker), M. M., & Peters, F. E. (2017). "Development of a Digital Standard to Specify Surface Requirements of Cast Metal Surfaces." *ASTM Materials Performance and Characterization*, 6(2). <https://doi.org/10.1520/MPC20160014>
- Articles in Peer-Reviewed Journals – In Review
  - Not applicable
- Peer-Reviewed Conference Proceedings, Bulletins, or Reports – In Print/Accepted
  - Stallard (Voelker), M. (2024). "Pedagogical Approach of Single-Semester Industry Engineering Capstone Course." *Proceedings of the Capstone Design Conference*. Knoxville, TN, USA. June 2024.
  - Stallard (Voelker), M. M., Peters, F. E., & Kemper, P. (2015). "Development of a Digital Standard to Specify Surface Requirements." *Proceedings of the Steel Founders Society of America Technical & Operating Conference*. Chicago, IL, USA. December 2015.
- Books and Book Chapters
  - Not applicable

- Formally Invited Seminars and Presentations
  - Not applicable
- Contributed Presentations
  - Stallard (Voelker), M. M. (2015). Development of a Digital Standard to Specify Surface Requirements. Steel Founders Society of America Technical & Operating Conference. Chicago, IL, USA. December 2015.
- Other Scholarly Contributions
  - Not applicable

B. Patents, Disclosures, and Technology Transfer

- Not applicable

C. Funded Grants and Contracts

- Not applicable

D. Pending Grants and Contracts

- Not applicable

• **TEACHING AND STUDENT MENTORING**

A. Instruction for ISU

Term	Course #	Course Title	Credits	Lab	Qty students F2F (virtual)	GTAs (UTA)	Overall Rating` (out of 5)
Spring 2024	IE441	Industrial Engineering Design	3	Yes	16	2	4.83
Spring 2024	IE305 <sup>+</sup>	Engineering Economics	3	No	86 (127)	3	4.46
Fall 2023	IE441 <sup>*</sup>	Industrial Engineering Design	3	Yes	29	1	4.00
Fall 2023	IE305	Engineering Economics	3	No	110	2 (2)	4.53

\*Co-taught, <sup>+</sup>Asynchronous (both virtual and F2F sessions), `Overall Teaching Effectiveness of instructor average score across all sections

B. Curricular Development Activity for ISU

- IE305 – Engineering Economic Analysis.
  1. Summer 2024. Revised online student Top Hat for in-class participation by Chapter to improve usability.
  2. Spring 2024. Revised content to simplify explanation of difficult concepts from prior semester to include more examples, both written and tied to industry experience. Increased engagement activities through TopHat questions for both online and in person sections. Refreshed project template to improve usability.
- IE441 – Industrial Engineering Design.
  1. Spring 2024. Consolidated rubrics and assignment guidance based on feedback from prior ratings. Refreshed and consolidated lectures on Ethics and Professionalism.

C. Supervision of Students as Major Professor

- Not applicable
- D. Service on Graduate Student Committees
- Not applicable
- E. Supervision of Post-Doctoral Students and Professional Staff
- Not applicable
- F. Supervision of Independent Study and Undergraduate Research
- Not applicable
- G. Non-ISU Instruction (e.g. Short Courses, Workshops, Training)
- *Operations Leadership Academy*. Course designer and primary facilitator for week-long production leader and manufacturing manager focusing on personal development, quality processes, people engagement, improvement, and business acumen. Rolls-Royce, Indianapolis, Indiana. 2019-2022.
- H. Other Teaching and Student Mentoring Contributions
- IISE Resume Roast, 31 January 2024. Resume workshop pre-career fair hosted by IISE with over 50 students in attendance.
  - Industrial Engineering 101 Student Dinner, 5 October 2023. Engagement activity with new Industrial Engineering Students to explore future career paths and interests with faculty members.
  - Industrial Engineering Professors without Powerpoints, 22 September 2023. Activity for new Industrial Engineering students to meet new faculty members and get tips for the new semester.
- **INSTITUTIONAL SERVICE**
- A. University-Level Service
- FIRST Lego League Master of Ceremonies, 29 January 2024. Robotics competition where middle school students use their STEM, communication, and leadership skills to design their own robot to complete various themed challenges.
  - State Science Fair Judge, 4 April 2024. Judging exhibits for high school science fair competitors and sharing with them career opportunities in STEM.
- B. College-Level Service
- Not applicable
- C. Department-Level Service
- Recruitment and Retention Committee, Committee Member, August 2023 – Present
  - Current and Prospective Student Engagement Activities:
    1. Industrial Engineering International Picnic, 20 April 2024. Engagement activity with current faculty and students.
    2. Industrial Engineering Graduate Bowling Night, 20 March 2024. Engagement activity with graduate students.

3. Industrial Engineering Volleyball Tournament, 5 March 2024. Engagement activity for industrial engineering students.
4. Scholar's Day, 24 February 2024. Recruitment activity for incoming Fall 2024 Freshmen.
5. Cyclone Family Weekend Engineering Open House, 14 October 2023. Engagement activity with current students and their families to learn more about engineering resources and meet current staff and faculty from the College of Engineering.
6. Industrial Engineering Tailgate, 23 September 2023, 7 October 2023. Engagement activity with alumni and potential future students to talk about Industrial Engineering as a profession.
7. Industrial Engineering Graduate Boardgame Night, 27 September 2023. Engagement activity with graduate students.
8. Industrial Engineering Fall Barbeque, 23 August 2023. Engagement with current students to kick off a new semester.
9. Industrial Engineering New Student Kick-Off, 17 August 2023. Event focused on welcoming new prospective students and sparking interest in Industrial Engineering as a potential major.

- **PROFESSIONAL SERVICE**

- A. Editorial and Review Service for Manuscripts

- Capstone Design Conference, 2024

- B. Service to Professional Societies

- Not applicable

- C. Grant Review Activities

- Not applicable

- D. Government, Educational, or Corporate Advisory Committees

- Not applicable

- **DIVERSITY, EQUITY AND INCLUSION ACTIVITIES**

- Industrial Engineering Diversity and Inclusion Halloween Event, 27 October 2023. Event focused on diversity of identity and student engagement.

- **OUTREACH, COMMUNITY ENGAGEMENT AND OTHER ACTIVITIES**

- A. Outreach Activities

- State Science and Technology Fair of Iowa, 4 April 2024. Judged middle and high school Technical Seminars, and supported awards ceremony on behalf of IMSE.
    - Women in Science and Engineering (WiSE) Go Further Conference, 9 November 2023. Immersive experience for 8<sup>th</sup>-10<sup>th</sup> graders to learn more about opportunities in and practical skills from Industrial Engineering; led two sessions

- B. Community Engagement Activities

- Not applicable

### C. Other Activities

- Hendricks County Friends of the Shelter, 2018 –2023. Secretary of the Board of Directors, graphic designer for publicity material, *Hogs for Hounds* and adoption event animal handler. Non-profit animal welfare group to support local animals in need in Central Indiana.
- *Scribbles for Kibbles* Founder, 2019 – 2023. Pet portrait fundraising event in support of the local animal shelter.
- The Custody Project, 2013 – 2014. Brochure development and logo design for mother and child welfare organization.
- Delaware County 4-H Elementary Day Camps, 2006 – 2011. Mentor, chaperon, and annual 4-H officer training leader.
- Delaware County Historical Society, 2008-2010. Indexer for historical record retention.