

## KEMPER LEWIS

Dean, School of Engineering and Applied Sciences

Moog Endowed Professor of Innovation

University at Buffalo, The State University of New York

[kelewis@buffalo.edu](mailto:kelewis@buffalo.edu) | 716.645.2682

[www.mae.buffalo.edu/people/faculty/lewis](http://www.mae.buffalo.edu/people/faculty/lewis) | <http://www.buffalo.edu/smart>

## EDUCATION

### Georgia Institute of Technology

- Ph.D., Mechanical Engineering 1996
- M.S., Mechanical Engineering 1994

### Duke University

- B.S., Mechanical Engineering 1992
- B.A., Mathematics 1992

### University at Buffalo

- M.B.A. 2003, Focus on Strategy & Decision Sciences

## EXPERIENCE

### University at Buffalo, The State University of New York

*Dean, School of Engineering and Applied Sciences (2020 – present)*

- Overseeing academic unit with nine departments, 250 faculty, 110 staff, 5000 undergraduate students and 2200 graduate students, with budget of \$70M.
- Collaborating across discipline units to advance the university's goals and SUNY's goals.

*Moog Endowed Professor of Innovation (2019 – present)*

*Co-Director, Sustainable Manufacturing and Advanced Robotic Technology (SMART) Community of Excellence (2015 – present)*

- Directing \$4M institute involving forty faculty from five schools (Engineering, Architecture, Management, Arts & Sciences, Medicine).
- Awarded after an internal institutional competition to establish three Communities of Excellence.

*Chair, Department of Mechanical and Aerospace Engineering (2014 – 2020)*

- Led the third largest department on campus with 42 full time faculty, 8 staff, and over 1500 students.

*Professor, School of Management (2013 – present, courtesy)*

*Professor, Department of Mechanical and Aerospace Engineering (2006 – present)*

*Executive Director, New York State Center for Engineering Design and Industrial Innovation (NYSCEDI) (2005-2014)*

- Led institutional level research center with an approximate \$1M annual budget.
- Interacted with elected state officials on regional and state-wide research and outreach impact.
- Built research collaborations with a network of universities, leading to a successful Industry/University Cooperative Research Center funded by the National Science Foundation.

*Associate Professor, Department of Mechanical and Aerospace Engineering (2001 – 2006)*

*Assistant Professor, Department of Mechanical and Aerospace Engineering (1996 – 2001)*

## TECHNICAL INTERESTS

Large-scale systems design, decision networks, design analytics, decentralized design, decision theory, additive manufacturing, multiobjective optimization, machine learning for design and manufacturing

## SCHOLARLY OUTPUT

- More than 215 peer-reviewed manuscripts
- More than 5,800 Google Scholar citations, h-index = 38
- Over \$18M in funding, with over \$9.0M allocated to K. Lewis

## AWARDS (RECENT)

- ASME Donald N. Zwiep Innovation in Education Award, 2019
- Sustained Achievement Award, Exceptional Scholar, University at Buffalo, 2017
- Design Automation Award, ASME, 2017

## PROFESSIONAL SOCIETIES (RECENT)

- Elected as member of the ASME Mechanical Engineering Department Head Executive Committee, 2015
- Elected as Secretary of ASME Mechanical Engineering Department Head Executive Committee, 2017-2018, as Vice-Chair 2018-2019, and as Chair 2019-2020
- ASME Fellow, 2011-present

## DIVERSITY INITIATIVES (RECENT)

- Created the SEAS Committee for Justice, Equity, Diversity, and Inclusion (JEDI)
- Launched mentoring and leadership programs focused on the development of underrepresented students.
- Brought in over \$1M in funds dedicated to initiatives in diversity and inclusion within SEAS.
- Designated as a National Science Foundation Panel Fellow in the Increasing Reviewer Risk Tolerance Through Awareness (IRRTTA) Program, 2020.

## SELECTED PUBLICATIONS

- Ghiasian, S.E. and Lewis, K., 2021, "Automated Geometric Correction System for Additive Manufacturing Considering Build Orientation," *ASME Journal of Mechanical Design*, <https://doi.org/10.1115/1.4051353>.
- Ghiasian, S.E. and Lewis, K., 2021, "A Recommender System for the Additive Manufacturing of Component Inventories Using Machine Learning," *ASME Journal of Computing and Information Science in Engineering*, <https://doi.org/10.1115/1.4051342>.
- Esmailian, B., Sarkis, J., Lewis, K., and Behdad, S., "Blockchain for the Future Sustainable Supply Chain Management in Industry 4.0," *Resources, Conservation, & Recycling*, Vol. 163, doi:10.1016/j.resconrec.2020.105064.
- Ball, Z. and Lewis, K., 2020, "Predicting Design Performance Utilizing Automated Topic Discovery," *Journal of Mechanical Design*, Vol. 142, doi:10.1115/1.4048455.
- Ghiasian, S.E., Jaiswal, P., Rai, R., and Lewis, K., 2020, "A Preference-based Approach to Assess a Component's Design Readiness for Additive Manufacturing," *Journal of Mechanical Design*, Vol. 142, No. 8, doi:10.1115/1.4045604.
- Odonkor, P. and Lewis, K., 2019, "Data-Driven Design of Control Strategies for Distributed Energy Systems," *Journal of Mechanical Design*, Special Issue on Machine Learning in Design, Vol. 141, doi:10.1115/1.4044077.