

Pamela McCauley, PhD, CPE

Sr. Consultant

Industrial Engineering and Management Systems

Humatec

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An ergonomics and biomechanics expert, Dr. McCauley has more than 20 years experience as a researcher, practitioner, consultant and professor in human factors, biomechanics, and ergonomic principles, applications and technology. She served as associate professor at Massachusetts Institute of Technology, focusing on human factors in aeronautic applications. Dr. McCauley's ongoing research at the University of Central Florida centers on ergonomics, safety, fuzzy set theory, and artificial intelligence, particularly in human factors. As president of T-STEM Inc., Dr. McCauley spearheads STEM education, leadership, diversity and innovation in coordination with institutions worldwide. Author of more than 80 technical papers, Dr. McCauley has also written multiple books, including *Essentials of Engineering Leadership and Innovation*, and the best-selling textbook *Ergonomics: Foundational Principles, Applications and Technologies*.

Areas of Focus

- Biomechanical Engineering
- Biomechanics of Injury
- Ergonomics Engineering
- Human Factors
- Industrial Accidents
- Industrial Engineering
- Safety Engineering
- Workplace/Occupational Safety
- Technical Product Development
- Product Liability

Education

- PhD, Industrial Engineering, University of Oklahoma, 1993
- MS, Industrial Engineering, University of Oklahoma, 1990
- BS, Industrial Engineering, University of Oklahoma, 1988

Licensing & Certifications

- Certified Professional Ergonomist (CPE)

Honors & Awards

- U.S. State Department, Jefferson Science Fellow, 2015 - 2016
- Black Engineer of the Year Educational Leadership Award, 2015
- U.S. Fulbright Scholar Program, Fulbright Specialist Award, New Zealand, 2012
- Florida Engineering Society, Engineer of the Year, 2007
- Society of Women Engineers, Engineering Educator of the Year, 2006
- University of Oklahoma, Distinguished Alumni Award, 2004
- NASA Research Fellow, 1997

Publications

- *Essentials of Engineering Leadership and Innovation*, McCauley, P., Taylor & Francis, CRC Press, 2016
- *Transforming your STEM Career Through Leadership and Innovation: Inspiration and Strategies for Women*, McCauley Bush, P., Elsevier Publishers, 2012
- *Ergonomics: Foundational Principles, Applications and Technologies*, McCauley Bush, P., Taylor & Francis, CRC Press, 2011

Associations

- Worcester Polytechnic Institute Diversity Advocacy Board, Executive Board Member
- National Executive Advisory Board of the Association of Women In Science, 2015 - 2016
- University of Oklahoma College of Engineering Minority Engineering Advisory Board
- National Center for Simulation, Board Member
- Women of Color Advisory Board
- Journal of Theoretical Issues in Ergonomic and Science, Editorial Board Member
- Florida Research Consortium Community Service, Board Member
- National Society of Black Engineers, UCF Chapter, Faculty Advisor
- Society of Women Engineers, Faculty Co-Advisor
- Institute of Industrial Engineers, Member

Employment

- Humatec, Sr. Consultant – Industrial Engineering and Management Systems, 2016 - Present
- University of Central Florida, Professor and Director of the Ergonomics Laboratory, Industrial Engineering and Management Systems Department, 1993 - Present
- T-STEM Inc., President, CEO, 2013 - Present
- Bush Enterprises/Tech-Solutions, Inc., Chief Technology Officer, 1999 - 2012
- Massachusetts Institute of Technology, Martin Luther King, Jr. Visiting Associate Professor of Aeronautics and Astronautics, 1998 - 1999