



Name:	Kermit G Davis, III
Degrees, certifications, etc.:	B.S., M.S., Ph.D., and CPE
Current status:	Associate Professor
Home page (optional):	http://www.eh.uc.edu/lowbackstresslab

Biography (How you got involved in the field, your major career activities and milestones):

I started in Industrial Engineering at the University of Toledo. During a conversation at a Christmas party, I was talking to my uncle who introduced me to Ergonomics and suggested that I visit Bill Marras at The Ohio State University as my wife was headed to OSU for graduate school. I went to OSU where I began as a graduate teaching assistant for first quarter until the Winter quarter where I was put onto a research project about spray guns. I ended up taking charge of the project and by the Spring quarter, I was a fulltime graduate research assistant..no more teaching. Over the next several years, I worked with Kevin Granata and Bill Marras on developing and applying the EMG-assisted model, which culminated with me proposing a study investigating handles on boxes (future master's thesis). As a result of this project and my other efforts, Bill asked me to stay on for a doctorate on a Friday and gave me until Monday to decide. Research evolved to the impact of how mental stress impacted biomechanics where I was the "Bad Guy" in the stress study. I got to be "nice" for the first half of the study and then turn into an insane research where I stressed out the subjects by intimidating them about how they were messing up. As a result, we were able to document the influence of stress as well as the study provided the foundation of my dissertation that focused on mental demands and their impact on the spine biomechanics during lifting. At this point, it was time to up root the family after 9 years in Columbus and move way south...well to Cincinnati, Ohio (for a Michigan/northern Ohio kid, this was way south). Upon joining the faculty at the University of Cincinnati, I found the funding in the ergonomics world to be treacherous at best. I started to develop an ergonomics program but it focused on ergonomic application in many industries: agriculture, construction, manufacturing, service, and retail. Upon retaining tenure, I was able to start to focus on research I was interested in rather than constantly chasing grant proposals (more than 60 in 6 years). Perseverance prevailed and funding has allowed me to conduct meaningful research now in Healthcare Ergonomics with a focus from point of design to application in the hospital, longterm care facility or home.

Employment History (List top 5 positions):

June, 2001 to Sept, 2007.....Assistant Professor,
Department of Environmental Health
University of Cincinnati, Cincinnati, Ohio

November, 2001 to Sept, 2007.....Secondary Appointment,
Dept. of Mechanical, Industrial, and Nuclear Eng.
University of Cincinnati, Cincinnati, Ohio

October, 2006 to PresentSecondary Appointment,
Dept. of Rehabilitation Science.
University of Cincinnati, Cincinnati, Ohio

Sept, 2007 to Present.....Associate Professor,
Department of Environmental Health
University of Cincinnati, Cincinnati, Ohio

What were your significant contributions to the field?

First to investigate the synergistic impact of mental and physical demands on the biomechanics of the low back.

Graduate students that have made an impact on the world at major corporations, federal institutions such as FEMA, US Census, NIOSH, and State Department.

Healthcare ergonomic research that has helped define actual exposures for healthcare professionals as well as quantitative data for designers of the next generation of medical equipment and beds.

Did you receive any notable awards or recognition during your career?

Alphonse Chapanis Student Paper Award at the Human Factors and Ergonomics Society Conference (1996)
International Society of Biomechanics Dissertation Grant (2000)
Sofamor Danek Best Paper at the International Society for the Study of the Lumbar Spine Conference (2000)
Finalist for the Alphonse Chapanis Student Paper Award at the Human Factors and Ergonomics Society Conference (2001)
Volvo Award for Low Back Pain Research in Biomechanical Studies Awarded by the International Society for the Study of the Lumbar Spine (2002)
Outstanding Poster (best 3 posters) at the North American Spine Society (2002)
Alice Hamilton Award from the National Institute for Occupational Safety and Health in the category of Human Services (2003)
Sofamor Danek Best Poster at the International Society for the Study of the Lumbar Spine Conference (2003)
Liberty Mutual Prize at the International Ergonomics Association (2003)
Promising Young Scientist Award from the International Society of Biomechanics (2005)
Hallman Visiting Professorship from the University of Waterloo (2006)

Which articles in the journal *Human Factors* would you say were the most influential to you and your research or practice?

Marras, W. S., & Sommerich, C. M. (1991). A three-dimensional motion model of loads on the lumbar spine: I. Model structure. *Human Factors: The Journal of the Human Factors and Ergonomics Society*, 33(2), 123-137.

Marras, W. S., & Sommerich, C. M. (1991). A three-dimensional motion model of loads on the lumbar spine: II. Model validation. *Human Factors: The Journal of the Human Factors*

and Ergonomics Society, 33(2), 139-149.

Kotowski, S. E., Davis, K. G., Wiggermann, N., & Williamson, R. (2013). Quantification of Patient Migration in Bed Catalyst to Improve Hospital Bed Design to Reduce Shear and Friction Forces and Nurses' Injuries. *Human Factors: The Journal of the Human Factors and Ergonomics Society, 55(1), 36-47.*

Please provide any links to your online articles, essays, blogs, Wikipedia pages, etc., that pertain to your research, publications or practice.

http://www.eh.uc.edu/dir_individual_details.asp?qcontactid=201

What advice would you give someone considering HF/E as a profession?

Ergonomics and Human Factors touches every aspect of your life from the time you get up until you go to bed, so constantly look at the world and see how you can improve it using the knowledge of HF/E.

Get involved in your society, Human Factor and Ergonomics as the more you give to the society, the more you will get from the profession. Networking and impacting the field are two major outcomes of being involved in HFES.