

CONSIDERATIONS IN EXOSKELETON HUMAN FACTORS



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University of Michigan Center for Occupational Health and Safety Engineering (COHSE)

June 17, 2020 | 12 - 1 PM Pacific | 3 - 4 PM Eastern

Register: coeh.berkeley.edu/20ew0617

About the Webinar:

Exoskeletons are a class of wearable technology that have potential to provide significant benefits to users, including increased strength or endurance, improved motor performance, and enhanced capability. Exoskeletons may be passive and provide structural support for the wearer, or active and generate motion using powered components. Enabling the benefits of an exoskeleton requires a good “fit” between the user and the system. In this talk, we will consider three characteristics of fit: (1) static, (2) dynamic, and (3) cognitive. Examples will be provided highlighting how these characteristics relate to exoskeletons.

Objectives:

At the completion of this activity, the learner will be able to:

- Describe and give examples of static fit, dynamic fit, and cognitive fit
- Discuss how these fit characteristics interact

Speaker Biography:

Leia Stirling is an Associate Professor in Industrial and Operations Engineering at the University of Michigan, a core faculty in the Center for Ergonomics, and an Affiliate Faculty in the Robotics Institute. She received her B.S. (2003) and M.S. (2005) in Aeronautical and Astronautical Engineering from the University of Illinois at Urbana-Champaign, and her Ph.D. (2008) in Aeronautics and Astronautics from MIT.

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