

A hands-on experience with easy-to-use wearable methods to measure physical work demands

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Faculty:

Nidhi Gupta

Utilising wearables in the workplace has transformed the approach to measuring and comprehending physical work demands in modern times. Traditionally, self-reports and interviews have been the conventional method for measuring physical work demands, but these practices are known to be imprecise and biased. Thus, such measurements are often very distant from reality, making it difficult for individuals, stakeholders, and society to comprehend and respond effectively. Wearables offer the possibility of measuring physical work demands more accurately and specifically, making the measurements easy to understand. While the accuracy of most wearables researchers use is undisputed, their use is often laborious and requires expertise. Conversely, commercial wearables are simpler to use but not developed for measuring physical work demands and have been criticised for data privacy issues. To address these limitations, developing a new generation of wearables is in progress, which are user-friendly, require little expertise, and abide by data privacy regulations.

The aims of this workshop are to

- (a) introduce these wearable-based solutions used to measure physical work demands,
- (b) provide practical experience in using them, and
- (c) offer examples of studies which have employed these wearable-based solutions to measure physical work demands.

Ultimately, the workshop's objective is to ensure that participants acquire the necessary skills to use these wearable-based solutions, critically evaluate their advantages and disadvantages, and select the most suitable method for use in their studies and projects.

About Our Speaker:

Nidhi Gupta, PhD, currently holds the position of Senior Researcher at the National Research Centre for the Working Environment (NFA) in Denmark. She subsequently served as a post-doctoral fellow at NFA after completing her doctoral degree in Sports Science at the Nanyang Technology University (Singapore). Dr Gupta has contributed to various national and international research initiatives dedicated to promoting accurate assessments of physical work demands and improving the prevention of musculoskeletal disorders (MSD). Her research interests lie in developing user-friendly, precise methods for measuring physical work demands in large-scale cohorts and surveillance and utilising innovative analytical techniques to uncover risk factors that contribute to MSD.