

Ergonomics Engineering for Healthcare Systems

Post-conference Workshop

September 26, 2023

Faculty:

Denny Yu

Pradip Kumar Ray

The workshop is designed to teach both the fundamentals and applications of ergonomics for healthcare at the international level - specifically describing the similarities and differences between the opportunities and barriers for healthcare environments with experts from the United Kingdom, India, and the United States (more regions may be identified closer to the conference date). Healthcare ergonomic topics will cover human physiology and anthropometry, fatigue assessment, human information processing and control, environmental factors assessment, and industrial product design fundamentals, including interface design and their impacts on human users.

About Our Speakers:

1. Denny Yu

Dr Yu is currently an Associate Professor of Industrial Engineering at Purdue University. He is also an Adjunct Associate Professor of Surgery at Indiana University School of Medicine and was a Summer Faculty Fellow at the Air Force Research Laboratory's 711th Human Performance Wing. He is a Certified Professional Ergonomist (CPE) and serves on the Board of Directors for the Board of Certification of Professional Ergonomics (BCPE) and the IISE Work Systems Board.

Research from Dr Yu's group has been recognised by NIOSH Bullard-Sherwood Award (honourable mention), the RSJ/KROS Distinguished Interdisciplinary Research Award (RO-MAN 2021), and the 2021 Human Factors Prize (by the Human Factors and Ergonomics Society).

Dr Yu has published over 55 peer-review journal manuscripts in human factors engineering, focusing on discovering objective features from sensors and health datasets for understanding human behaviour and performance in complex, high-stress environments. His work has been supported by grants and contracts with an individual share of over \$2.7 million (\$2.3 million as PI).

2. Pradip Kumar Ray

Pradip Kumar Ray works at the Department of Industrial and Systems Engineering, IIT Kharagpur, India. He has conducted research in the areas of Process Optimisation, Manufacturing Productivity Measurement and Evaluation, New Product Development, Supply Chain Management Quality Control and Engineering/Management, Total Quality Management, Manufacturing Flexibility, Operations Management, Knowledge Management, Railway Signalling Systems, Ergonomic Design of MMH in Construction, Ergonomic Design of Enclosed Work systems including Work Stress Modelling for EOT crane operators, Optimization of Healthcare Systems, Environmental Performance Measurement and Management for Industries, Service Performance Measurement and Evaluation.