

## **IISE Transactions on Occupational Ergonomics and Human Factors**

Contribute to our Special Issue on *Emerging hardware and software technologies for assessing and improving occupational safety and health*

### **Description:**

New technologies are emerging rapidly within occupational ergonomics and safety – including sensing, computer vision, and computational techniques. These technologies are beginning to be used occupationally, such as wearable sensors for detecting worker fatigue, markerless technologies for assessing injury risk, and AI and machine learning to predict injuries. While there are clear potential benefits of these technologies, more evidence is needed regarding their usability and validity, as well as their translation to practice.

This special issue will include contributions that address the potential or actual advantages and challenges associated with emerging hardware and software technologies in diverse work settings and applications, with a focus on occupational ergonomics and safety.

Topics of interest include but are not limited to:

- Wearables for occupational exposure assessment
- Validation of video, wearables, and other emerging techniques
- New analysis methods, such as using machine learning and AI
- Interpretation of large, sensor-generated datasets
- Guidelines and best practices for applications of emerging techniques
- Demonstrations and case reports of using emerging technologies for occupational health and safety
- Cognitive, physical, and environmental aspects, along with issues related to safety, trust, usability, and fairness, that are or may be associated with emerging hardware and software techniques and technologies

What can I contribute?

- Submissions across the theoretical-to-applied spectrum are welcomed, as well as domain-specific works
- Submissions are welcomed using any of the journal's manuscript types (i.e., Original Research, Methods/Models/Theories, Reviews, Brief Reports, Position Papers, Viewpoints, Historical Perspectives, Emerging Issues, Applications, and Case Reports)
- Methodological diversity is encouraged; we welcome submissions using qualitative approaches, action research methodologies, surveys, computer modeling, technical measurements, simulations, data analytics methods, observational approaches, etc.

Why contribute to the IISE Transactions on Occupational Ergonomics and Human Factors?

- Accepted papers will be published in a widely read and cited journal, enabling you to effectively contribute to the development of the research area
- Your research will be validated by a robust, double-blind, peer review process
- You can share your research using our open access options
- You can follow the impact of your research using My Authored Works

How can I contribute?

Letters of intent (LOIs) are optional but are strongly encouraged. Please provide a tentative manuscript title, brief abstract, and any questions you have about the special issue or

submission process. Prompt feedback will be provided to authors regarding compatibility with the special issue. LOIs should be addressed to Dr. Denny Yu at [dennyyu\[at\]purdue.edu](mailto:dennyyu[at]purdue.edu).

All papers must be submitted through the journal's ScholarOne online submission website (<https://bit.ly/UEHF>). Complete information about the journal, including author instructions, review criteria and procedures, and submission templates, are available at <https://www.tandfonline.com/journals/uehf21>. All submissions must abide by the journal's requirements, and the journal's regular processes will be followed for review of submissions.

During the online submission process, please indicate that your submission is for this special issue, entitled "*Emerging hardware and software technologies for assessing and improving occupational safety and health*", when prompted for this at the submission website.

**Dates to remember:**

|                                       |  |
|---------------------------------------|--|
| Optional Letter of Intent             | November 30, 2023                        |
| Submission of Manuscripts Due         | February 29, 2024                        |
| Notification of First Review Decision | approximately 4-5 weeks after submission |
| Expected Publication                  | 2 <sup>nd</sup> half of 2024             |

For any questions about this special issue, including questions about the relevance/suitability of a planned submission, please contact the Special Issue Editors below.

**Special Issue Editors:**

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