

# Human Systems Integration

The ISE Department has one of the premier research and educational programs in human systems integration. This research focuses on both the mind and the body, with leading research efforts in cognitive systems engineering, biodynamics, physical ergonomics, resilience engineering and safety engineering. This work continues a long tradition of human factors research and industry partnerships at Ohio State, with an emphasis on an interdisciplinary approach to system design.

This research draws upon the extensive experience of faculty, staff, and students from a variety of disciplines, including industrial and systems engineering, biomedical engineering, computer and information science, communication, electrical engineering, industrial design, psychology, statistics, education, physiology, biomedical engineering, public health, public policy and medicine.

**Research in cognitive systems engineering and resilience** focuses on human-centered design of complex systems, including work focusing on air traffic flow management, airline operations control, cybersecurity, healthcare, information retrieval and analysis and military planning.

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**Research in physical ergonomics and biodynamics** is concerned with occupational ergonomics and cumulative trauma, as well as personalized medicine for the prevention and treatment of spine disorders.



## Research Labs

- Center for Occupational Health in Automotive Manufacturing (COHAM)
- Distribution Ergonomics Research Center
- Engineering Laboratory for Human Factors/Ergonomics/Safety
- Institute for Ergonomics
- Spine Research Institute

## Faculty

- Steve Lavender
- Bill Marras
- Alex Morison
- Carolyn Sommerich
- Phil Smith
- David Woods

## Staff

- Gary Allread
- William Darling
- Jonathan Dufour
- Sue Ferguson
- Greg Knapik
- Mageswaran Prasath
- Eric Rathburn
- Peter Schabo
- Gaye Spetka