

HANDBOOK OF HUMAN FACTORS AND ERGONOMICS

5TH EDITION

Edited by:

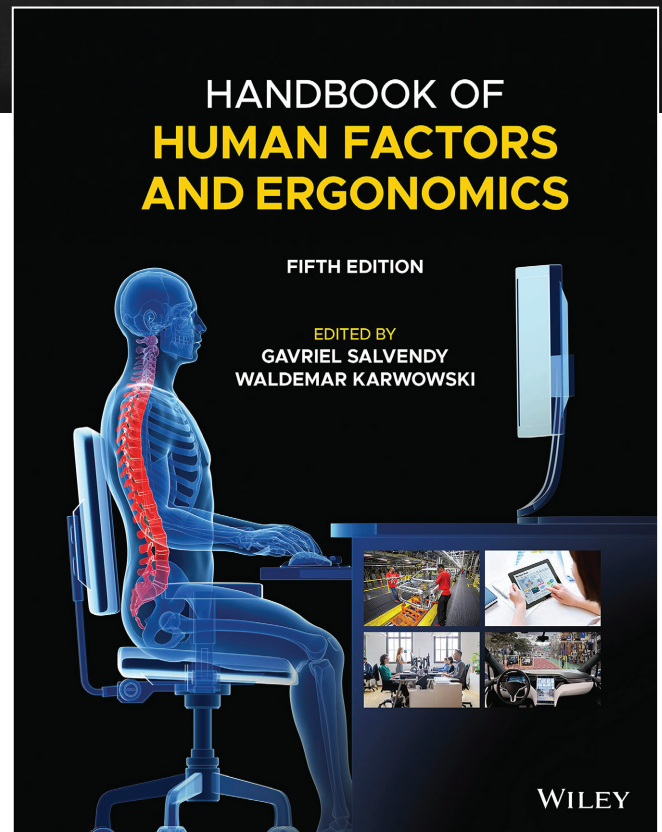
Gavriel Salvendy & Waldemar Karwowski

Industrial Engineering | Human Factors Engineering

Discover the latest developments in ergonomics and human factors with the newest edition of this market leading reference.

In the newly revised Fifth Edition of *Handbook of Human Factors and Ergonomics*, Drs. Gavriel Salvendy and Waldemar Karwowski, with contributions from an international team of leading experts in ergonomics and human factors, deliver a comprehensive exploration of workplace environment design, human-machine interfaces, and cutting-edge research on the reduction of health and safety risks. The Handbook includes information culled from over 7500 sources and features brand new coverage in areas like artificial intelligence, social media, information technology and cybersecurity, and data analytics. Numerous case studies demonstrate the real-world application of the concepts and methods discussed within and showcase the extraordinary developments in the field since the publication of the Fourth Edition in 2012.

- A thorough introduction to the human factors function, including the discipline of human factors and ergonomics and human systems design and integration
- An exploration of the fundamentals of human factors, including sensation and perception, selection and action control, information processing, and mental workload
- Discussions of the design of equipment, tasks, jobs, and environments, including workplace design, task analysis and design, and training systems
- An in-depth treatment of design for health, safety, and comfort, including low-back and upper extremity musculoskeletal disorders and the use of personal protective equipment



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Perfect for ergonomics and human factors engineers at any level of their careers, *Handbook of Human Factors and Ergonomics* will also earn a place in the libraries of design engineers, applied psychologists, human-computer interaction specialists, engineering and technology managers, and safety professionals and industrial hygienists.

THE EDITORS

Gavriel Salvendy, Ph.D., is a University Distinguished Professor at the University of Central Florida, and Founding President of the Academy of Science, Engineering, and Medicine of Florida. He is also Professor Emeritus of Industrial Engineering at Purdue University, and Founding Head of the Department of Industrial Engineering at Tsinghua University, Beijing, China. He is the author of nearly 600 research publications, including 320 journal papers. He is the founding editor of two journals: *International Journal on Human-Computer Interaction* and *Human Factors and Ergonomics in Manufacturing and Service Industries*.

Waldemar Karwowski, Ph.D., is Pegasus Professor and Chairman of the Department of Industrial Engineering and Management Systems at the University of Central Florida. He has over 550 research publications, including over 200 journal papers focused on ergonomics and safety, human performance, neuro-fuzzy systems, nonlinear dynamics, human-centered AI, and neuroergonomics. Dr. Karwowski currently is Co-Editor-in-Chief of *Theoretical Issues in Ergonomics Science* journal, Editor-in-Chief of *Human-Intelligent Systems Integration* journal, and Field Chief Editor of the *Frontiers in Neuroergonomics* journal.



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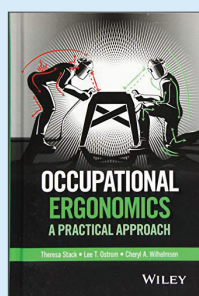
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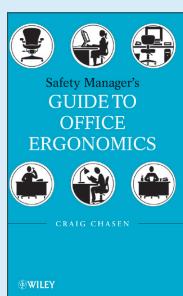
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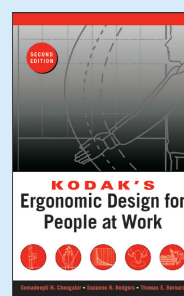
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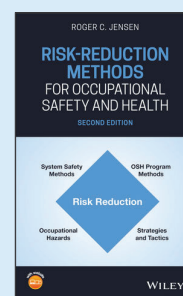
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