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The Journal of the Human Factors and Ergonomics Society

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*Human Factors*, the journal of the Human Factors and Ergonomics Society (HFES), publishes original articles about people in relation to systems, including hardware, software, and environmental factors. Evaluative reviews of the literature, definitive articles on methodology and procedures (including prescriptive methods for task simulation and evaluation, quantitative and qualitative approaches to theory (including models of human performance and safety), and empirical articles reporting original research are considered for publication.

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The following types of papers may be submitted.

**Research Article.** Research articles represent the most common type of contribution to *Human Factors*. These articles report previously unpublished original research that is experimental (field or laboratory based), methodological, or theoretical in nature. These articles report a single experiment or concept that is fully developed and includes a statistical analysis (when appropriate). This mechanism is not appropriate for the reporting of preliminary or pilot data. Research articles submissions are limited to 4,500 words, excluding the abstract, key points, and references. Figures and tables are encouraged to enhance information transfer and effective communication.

**Extended Multi-Phase Study.** Multi-phase studies report on a sequence or series of closely related original studies that are best discussed collectively instead of through multiple original articles. Research approaches encompassed in such a series of studies could include more than one experiment or a mixture of experiments, observational studies, modeling, surveys, ethnographic studies, and so on. The series must have a theoretical underpinning that makes its inclusion in the same report a logical progression. This mechanism is not appropriate for single-experiment or single-model reporting, nor is it an appropriate mechanism for reporting pilot study results along with a single experiment. Each component (experiment) of the sequence of studies must be able to be statistically evaluated independently. Multi-experiment series are limited to 4,500 words plus 3,000 words for each experiment (or model) beyond the first experiment, excluding the abstract, key points, and references. (Thus, a two-experiment series should not exceed 7,500 words, a three-experiment series should not exceed 10,500 words, etc.) Figures and tables are encouraged when they can enhance information transfer and effective communication.

**Invited Review Article.** Review articles present a synthesis of previously published work on a specific topic of interest to the HF/E community. These articles are intended to scientifically analyze a body of literature and synthesize the information in an original manner. Invited Review Articles must provide an original perspective on the literature, not merely a summary but an extension of knowledge on a topic. Please contact the Associate Editor for Reviews if you would like to propose a topic for an Invited Review Article.

**Replications Article.** Authors who wish to reproduce prior research studies are invited to submit a proposal to submit a replication study. This is a two-stage process. If the initial proposal is accepted, authors will be invited to submit a more lengthy and detailed proposal including details of the methodology and statistical analysis to be used. Further details on what will be required will be provided on acceptance of the outline proposal.

### Requirements

*Human Factors* is a refereed journal. Authors may request double-blind review by removing all references to author/coauthors from the manuscript. Allow approximately 10 weeks for first review.

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**Language.** Only articles written in English will be considered.

**Typing the paper.** Using either 8.5 x 11-inch or A4 paper, type the text double-spaced on one side of the page, with margins of 1 inch (2.54 cm). Be sure to number each page at the top or bottom of the page. (If requesting double-blind review, omit author name(s) from your page headers/footers.) Text headings should appear as on this page.

The following information should be included when you upload your paper:

- Article title/subtitle (caps/lowercase)
- Name of each author and the author's primary institution, city, state, and country (caps/lowercase)
- Precise word counts for (a) text (excluding title page, abstract, bios) and (b) references
- 250-word structured abstract (see below)
- Contact information for the author to whom requests for reprints should be sent (give complete address)
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- Several keywords for indexing purposes (exclude words that already appear in the title/subtitle)
- A list of key points in bullet form, inserted prior to the References list
- Précis: a 50-word description (in 1-3 sentences) of the manuscript, which will appear in the Table of Contents below the title and authorship information.

**Units of measure.** Magnitudes of all measured quantities must be given in the International System of Units (SI).

**Structured abstract.** Prepare an abstract of no more than 250 words, with information arranged under the following subheadings (include the subheadings in your abstract): (a) objective, (b) background, (c) methods, (d) results, (e) conclusion, and (f) application (a statement that reflects the practical impact of this work).

**Tables and figures.** Prepare a separate sheet listing the figure legends. Each figure should be labeled in the extreme upper or lower portion of the page for identification. Tables will be typeset from your text file.

**Biographies.** For each author, indicate the current affiliation and highest degree obtained (field, year obtained, institution). Include the biographies immediately after the references.

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Review the Instructions for Authors located at <https://www.hfes.org/Security/ContentPages?id=454> for the most up-to-date requirements. Log in to <http://mc.manuscriptcentral.com/humanfactors> and upload your manuscript at Manuscript Central, our Web-based manuscript submission and review system. If you don't already have a log-in account, simply create one by clicking "Create Account" at the top of the page.

Proofread your manuscript to ensure that it was converted to PDF format correctly. If you encounter difficulties, please contact Manish Mainwal at [Manish.Nainwal@sagepub.in](mailto:Manish.Nainwal@sagepub.in).

## HUMAN FACTORS AND ERGONOMICS SOCIETY

HFES was founded in 1957 and is the largest nonprofit association for human factors/ergonomics professionals in the world, with more than 4,500 members internationally. HFES focuses on the role of humans in complex systems, the design of equipment and facilities for human use, and the development of environments for comfort and safety. The Society holds an annual business and technical meeting each fall. Local and student chapters are active in many areas within and outside the United States. Technical interest groups sponsor newsletters, symposia, and annual meeting technical sessions. HFES also publishes *Ergonomics in Design*, an applications magazine; the *HFES Bulletin*, a monthly newsletter; annual meeting proceedings; and books and monographs.

For more information, contact HFES at 2025 M Street NW, Suite 800, Washington, DC 20036 USA or at 202/367-1114, fax 202/367-2114, or <http://hfes.org>.

# Major Topics Covered in HUMAN FACTORS

*This is a partial list of topics addressed in papers published in **Human Factors**. However, it is far from exhaustive and is subject to periodic revision (latest revision: January 2014). Each paper listed in the table of contents includes a descriptive topic.*

*A fuller list of topics with subtopics may be viewed in the **Human Factors** manuscript submission site, <http://mc.manuscriptcentral.com/humanfactors>.*

ACCIDENTS, HUMAN ERROR

AGING

AUTOMATION, EXPERT SYSTEMS

AVIATION AND AEROSPACE

BIOMECHANICS, ANTHROPOMETRY,  
WORK PHYSIOLOGY

COGNITION

COMMUNICATION

CONSUMER PRODUCTS, TOOLS

DISPLAYS AND CONTROLS

ENVIRONMENTAL DESIGN

HEALTH CARE/HEALTH SYSTEMS

HUMAN-COMPUTER INTERACTION,  
COMPUTER SYSTEMS

HUMAN-ROBOT INTERACTION

HUMAN-SYSTEMS INTEGRATION

INDIVIDUAL DIFFERENCES

MACROERGONOMICS AND  
THE ENVIRONMENT

MANUFACTURING, PROCESS  
CONTROL SYSTEMS

METHODS AND SKILLS

MOTOR BEHAVIOR

NEUROERGONOMICS

PHYSICAL/AMBIENT ENVIRONMENT

PHYSIOLOGICAL AND PSYCHOLOGICAL  
CONDITIONS ("INTERNAL  
ENVIRONMENT")

SENSORY AND PERCEPTUAL  
PROCESSES

SIMULATION AND VIRTUAL REALITY

SOCIAL PROCESSES

SPECIAL POPULATIONS

SURFACE TRANSPORTATION

SYSTEM DESIGN AND ANALYSIS  
(GENERAL)

TEAMS AND GROUPS

TRAINING, EDUCATION,  
INSTRUCTIONAL SYSTEMS

**Human Factors: The Journal of the Human Factors and Ergonomics Society** is a peer-reviewed journal presenting original works of scientific merit that contribute to the understanding and advancement of the systematic consideration of people in relation to machines, systems, tools, and environments. It highlights fundamental human capabilities, limitations, and tendencies, as well as the basics of human performance, with the goal of promoting improvements in the human-system interface that lead to safer and more effective use.

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