

Topics Covered in
HUMAN FACTORS: The Journal of the Human Factors and Ergonomics Society

Submissions to *Human Factors* may address any of the following topics.

ACCIDENTS, SAFETY, HUMAN ERROR

Architectural
Consumer products
Context specific (transportation, aviation,
highway/automobile/driver behavior, marine, railway, space)
Education
Forensics
Home
Human error (medicine, aviation, driving, etc.)
Industrial/organizational/workplace
Manufacturing
Medical/health
Military
Risk management
Warning systems

AGING

AEROSPACE SYSTEMS

Air traffic control
Aircrew behavior
System design features

**AMBIENT CONDITIONS AND PROTECTION
FROM/ADAPTATION TO . . .**

G forces
Light and lighting/optic
Noise/acoustic
Temperature
Toxins
Vibration

**BIOMECHANICS, WORK PHYSIOLOGY,
ANTHROPOMETRY**

Job risk assessment
Kinematics
Models and measures
Musculoskeletal system (musculoskeletal disorders, cumulative
trauma disorder)

COGNITION

Attention (basic)
Automatic and controlled processing
Decision making, judgment, risk assessment
Dual-task, "capacity," mental workload
Long-term memory
Memory, "central processing" (basic)
Mental models, shared mental models
Metacognition
Multiple resources
Naturalistic decision making
Physiological measures, models
Problem-solving, reasoning
Situation awareness
Vigilance, monitoring, "supervisory control"
Working memory

COMMUNICATION SYSTEMS

Internet
Teleconferencing

COMPUTER SYSTEMS

Environment
Graphics
Groupware
Hardware
Interface evaluation, usability
Multimedia
Software

CONTROLS

Display-control compatibility
General principles
Graphical user interfaces (GUI)
Keyboards
Manual
Multimodality displays
Speech production and recognition
Speech user interfaces (SUI)
Supervisory (e.g., process control, automated systems)
Tactile displays
Touch screens
Trackballs, mice, joysticks, other output devices

DISABILITY/HANDICAP/FUNCTIONAL IMPAIRMENT

Mental
Physical

DISPLAYS

Auditory displays
Computer interface
General principles (e.g., compatibility, coding, stereotypes)
Tactual/haptic displays
Visual, pictorial, object displays

**HCI APPLICATIONS (FOCUS ON PROCESSING
RATHER THAN DISPLAYS/CONTROLS)**

Ecological validity
Function allocation in system design
Novice/expert
Usability/acceptance measurement and research
Workload

INDIVIDUAL DIFFERENCES

Adaptability
Age
Experience
Gender
Handedness
National culture
Personality

**LEARNING/TRANSFER/SKILL MAINTENANCE
(BASIC)**

Age and aging effects
Controlled processing/automatic processing
Expertise
Skill acquisition

MANUFACTURING, PROCESS CONTROL SYSTEMS

Operations research
Organizational factors
Robotics
Testing and evaluation

METHODOLOGICAL (GENERAL)

Analysis and evaluation techniques
Cognitive task analysis
Design strategies, tools (e.g., rapid prototyping)
Human performance modeling
Knowledge elicitation
Mental measurement (e.g., psychophysics, scaling)
Meta-analysis
Multivariate analysis (e.g., MANOVA, multiple regression)
Physiological measurement
Psychometrics and testing
Research design (experimental, quasiexperimental, field)
Statistics and data analysis
Structural equation modeling/LISREL

PERFORMANCE-ORIENTED TOPICS (OTHER)

Skilled performance/perceptual-motor skill
Team performance

**PHYSIOLOGICAL AND PSYCHOLOGICAL
CONDITIONS AND "INTERNAL ENVIRONMENT"**

Boredom, monotony
Fatigue
Induced states (e.g., drugs)
Sensory deprivation/overload
Sleep, work/rest cycles, circadian rhythms
Stress

PSYCHOMOTOR PROCESSES

Eye movement, tracking

SENSORY/PERCEPTUAL PROCESSES

Audition (basic)
Fuzzy signal detection theory
Kinesthetic, orientation, balance perception
Olfactory and gustatory senses
Signal detection theory
Speech perception

Tactual/haptic perception
Vigilance
Visual perception (molar)
Visual search/scanning

SIMULATION AND VIRTUAL REALITY

Artificial intelligence
Continuous simulation
Discrete simulation
Immersive environments
Motion sickness
Presence
Simulation-based acquisition
Simulator sickness

**SOCIOTECHNICAL SYSTEMS, MACROERGONOMICS,
AND THE ENVIRONMENT**

Job stress
Microergonomics
Participatory ergonomics

SURFACE TRANSPORTATION

Driver behavior
Highway and vehicle design
Maritime issues

SYSTEM DESIGN AND ANALYSIS (GENERAL)

Architectural
Aviation
Consumer products
Education
Forensics
Highway/automobile
Home
Industrial/organizational/workplace
Manufacturing
Medical/health
Military
Railway
Space

TRAINING AND SIMULATION

Distance/distributed learning and training
Embedded training
Games
Intelligent tutors
Team training
Training evaluation
Training technologies (e.g., Web-based)
Transfer of training