## Table of Contents - Part I

## Driving and Aviation Safety

Human Centered Design of a Pre-collision System	ა
Causal Attribution and Control: Between Consciousness and Psychical Half-Shadow Application to Flight Operations	11
Attentional Biases during Steering Behavior	21
A Validation Approach for Complex NextGen Air Traffic Control Human Performance Models  Brian F. Gore and Paul Milgram	28
Personality and Attitudes as Predictors of Risky Driving Behavior:  Evidence from Beijing Drivers	38
Effects of Sleep Deprivation on Pilot's Cognitive Behavior in Flight Simulation	45
Towards Early Status Warning for Driver's Fatigue Based on Cognitive Behavior Models	55
Simulating the Impact of Mental Models on Human Automation Interaction in Aviation	61
Ergonomics Study of Direct and Indirect Visibility Evaluation at Uncontrolled Intersections Based on Three-Dimensional Computer Simulation	70
Prediction of Drowsy Driving Using Behavioral Measures of Drivers – Change of Neck Bending Angle and Sitting Pressure Distribution	78

Sensory Modalities
Atsuo Murata, Michihiro Kanbayashi, and Takehito Hayami
Proposal of Automotive 8-directional Warning System That Makes Use of Tactile Apparent Movement
$Takehito\ Hayami$
Evaluation of Drivers Interaction with Assistant Systems Using Criticality Driven Guided Simulation
Effects of Spaceflight Operation Complexity and Training on Operation
Error
Predicating the Safety of Airport Approaches Using a Cognitive Pilot Model
Changpeng Yang, Tangwen Yin, and Shan Fu
Pilot Performance Models
Human Factors and Digital Human Modeling in Healthcare
Supporting Conversation for People with Dementia by Introducing a Computer-Based Third Element to the Interaction
"Using Digital Interactive Television to Promote Healthcare and Wellness Inclusive Services"
Homecare Risk Management: Nursing Issues Related to Technology Juliana J. Brixey and James P. Turley
Facilitators' Intervention Variance and Outcome Influence When Using Video Games with Fibromyalgia Patients
The Causal Analysis of Requested Alterations for Pressure Garments Chia-Fen Chi Chih-Hsiana Lin and Huna-Wei Chena

Table of Contents – Part I	VIV
Towards Enhancing the Acoustic Models for Dysarthric Speech  Kuruvachan K. George and C. Santhosh Kumar	183
Supporting a Participant-Centric Management of Obesity via a Self-improving Health Game	189
Feedback-Based Self-training System of Patient Transfer Zhifeng Huang, Ayanori Nagata, Masako Kanai-Pak, Jukai Maeda, Yasuko Kitajima, Mitsuhiro Nakamura, Kyoko Aida, Noriaki Kuwahara, Taiki Ogata, and Jun Ota	197
A Comparative Analysis of the Educational Effectiveness of Leaflet and Website for Low-Literate Patients – A Case Study of Immigrant Mothers in Taipei	204
Effect Evaluation of Recreational Coloring Carried Out at Pay Nursing Home	214
A Study for Conducting Waves by Using the Multi-channel Surface EMG	223
Implementing Scenarios as an Evaluation Method of the Patient-Physician Interaction in Decision Aids	232
Plantar Pressure Gradient Angles to Evaluate Risk of Diabetic Foot Ulcer	240
Explicit Tracking in the Diagnostic Process for Hand Dermatological Practices	248
Ideal Mode Selection of a Cardiac Pacing System  Dominique Méry and Neeraj Kumar Singh	258

Development of a Measurement and Evaluation System for Bed-Making	
Activity for Self-training	268
Usability Problems in Patient- and Clinician-Oriented Health Information Systems: What Are They and How Do They Differ?	<b>2</b> 76
Safety of the Human Environment	
AmI-Technology at Work – A Sociological Perspective Covering Aspects of Occupational Safety and Health (OSH)	<b>2</b> 89
Bayesian Affordance-Based Agent Model for Wayfinding Behaviors in Evacuation Problems	297
A Sustainable Human Centered Design Framework Based on Human Factors	307
Putting in Perspective Human-Machine System Theory and Modeling: From Theoretical Biology to Artifacts Integrative Design and Organization Didier Fass	316
Friction Measurements in a Hand Tool Factory	326
Development of Human Balance Assessment System with Continuous Center of Gravity Tracking	332
Constructing Ergonomic Safety Modelling for Evaluating New Designs of Child Car Seats	338
How Could This Have Happened? Unintentional Injuries of Young Children at Home	348

Table of Contents – Part I	XXI
Usability of Portable Fire Extinguisher: Perspectives of Ergonomics and Intuitive Use	355
Adaptive User-Centered Design for Safety and Comfort of Physical Human Nursing – Care Robot Interaction	365
Investigation of an Agent-Based Modeling on Crowd Evacuation and Its Application to Real Buildings	373
Author Index	383