



# 2016 AHFE International

## 7<sup>th</sup> International Conference on Applied Human Factors and Ergonomics

jointly with

1<sup>st</sup> International Conference on Design for Inclusion

1<sup>st</sup> International Conference on Cognitive Computing

1<sup>st</sup> International Conference on Human Factors in Management and Leadership

2<sup>nd</sup> International Conference on Human Factors in Cybersecurity

2<sup>nd</sup> International Conference on Human Factors and Systems Interaction

2<sup>nd</sup> International Conference on Human Factors in Robots and Unmanned Systems

2<sup>nd</sup> International Conference on Human Factors in Sports and Outdoor Recreation

2<sup>nd</sup> International Conference on Human Factors in Energy:

Oil, Gas, Nuclear and Electric Power Industries

2<sup>nd</sup> International Conference on Human Factors, Business Management and Society

2<sup>nd</sup> International Conference on Human Factors in Training, Education, and Learning Sciences

3<sup>rd</sup> International IBM Conference on Human Factors, Software, and Systems Engineering

3<sup>rd</sup> International Conference on Safety Management and Human Factors

3<sup>rd</sup> International Conference on Human Factors and Sustainable Infrastructure

4<sup>th</sup> International Conference on The Human Side of Service Engineering

4<sup>th</sup> International Conference on Affective and Pleasurable Design

4<sup>th</sup> International Conference on Human Factors in Transportation

4<sup>th</sup> International Conference on Ergonomics In Design

5<sup>th</sup> International Conference on Human Factors and Ergonomics in Healthcare

5<sup>th</sup> International Conference on Cross-Cultural Decision Making

5<sup>th</sup> International Conference on Applied Digital Human Modeling and Simulation

17<sup>th</sup> International Conference on The Human Aspects of Advanced Manufacturing

(HAAMAHA): Managing Enterprise of the Future

# Final Program

## July 27-31, 2016

Walt Disney World®

Swan and Dolphin Hotel

Orlando, Florida, USA

Under the auspices of 25 distinguished  
international boards consisting of 626  
members from 60 countries

[www.ahfe2016.org](http://www.ahfe2016.org)

# Opening Plenary Session and Keynote Address

Date: Thursday, July 28, 2016 • 17:00 - 19:00  
Room: Northern Hall (Fifth Level - Walt Disney World Dolphin®)  
Chair: Dylan Schmorrow

## INTRODUCTORY REMARKS

Waldemar Karwowski - General Conference Chair

## MASTERING HUMAN FACTORS IN MANAGEMENT AND LEADERSHIP: SIMULATION AND OPTIMIZATION OF COMPLEX SYSTEMS - THE VISION OF COMTESSA

### **Professor Stefan Pickl, PhD, D.Sc.**

Chair for Operations Research Faculty of Computer Science  
Universität der Bundeswehr Munich, Germany



### **About the speaker**

Professor Stefan Pickl studied mathematics, electrical engineering, and philosophy at Technical University of Darmstadt, Germany, and at EPFL, Lausanne, Switzerland (1987-1993). He received his Dipl.-Ing. degree in 1993 and a doctorate (with distinction) in 1998. Dr. Pickl is the vice-coordinator of the European Operations Research Society (EURO) for Experimental Economics/Operations Research. He has been associated with Center for the Advanced Study of Algorithms CASA (USA), as well as Center for Network Innovation and Experimentation CENETIX. Since 2008, Professor Pickl has served as Chair of the International Committee for Controlling Theory of the International Federation on Optimal Control (IFAC): Technical Committee on Optimal Control. In 2010 he was elected Chair of the Advisory Board of the German Society for Operations Research. He is also the educational representative for Germany in the European Society for Operations Research. Professor Pickl currently serves as Director of COMTESSA (Core Competence Center C3 for Operations Research, Tenacity-Management-Excellence, and Safety & Security Alliance), a member of MUNICH AEROSPACE, HOLM (House of Logistics and Mobility) and research branch Humanitarian Logistics/Integrative Risk Assessment Future ICT/Industrial Management.

**CONFERENCE RECEPTION/BANQUET: THURSDAY, JULY 28 • 19:00**

**NORTHERN FOYER (FIFTH LEVEL - WALT DISNEY WORLD DOLPHIN®)**

**(TICKET REQUIRED)**

Dress is business casual

# Tutorials

## PRE-CONFERENCE TUTORIALS

All Tutorials will be held on Wednesday, July 27 and Thursday, July 28, 2016 (Lobby Level - Walt Disney World Dolphin®) Tutorial registration is required.

### WEDNESDAY, JULY 27

8:00 - 12:00 • BREAK: 10:30 - ROOM: OCEANIC 4

- **Research Methods for Eye Tracking in Human Factors**  
Presenter: Andrew Schall  
Room: Oceanic 2
- **Principles for Designing Interfaces Compatible with Human Cognition**  
Presenters: Robert Proctor and Kim-Phuong Vu  
Room: Oceanic 7

13:00 - 17:00 • BREAK: 15:30 - ROOM: OCEANIC 4

- **Dead Tired: What You Need to Know to Manage Worker Fatigue**  
Presenter: Mike Harnett  
Room: Oceanic 2
- **Human Systems Integration in Cooperative Guidance and Control for Highly Automated Vehicles**  
Presenter: Marcel Baltzer, Eugen Altendorf and Frank Flemisch  
Room: Oceanic 7
- **Beyond Sketching Features: UI Design as Natural, Intuitive Human Conversations**  
Presenter: Everett McKay  
Room: Oceanic 8

### THURSDAY, JULY 28

8:00 - 12:00 • BREAK: 10:30 - ROOM: OCEANIC 4

- **Overview of Human Information Processing for HFE**  
Presenters: Kim-Phuong Vu and Robert Proctor  
Room: Oceanic 2
- **Human Factors and Cyber-Security**  
Presenter: Abbas Moallem  
Room: Oceanic 7

13:00 - 17:00 • BREAK: 15:30 - ROOM: OCEANIC 4

- **Design, User Experience and Usability (DUXU)**  
Presenter: Javed Sheikh  
Room: Oceanic 2
- **Rasmussen's Risk Management Framework and AcciMap: A Systems Approach to Accident Analysis**  
Presenters: Paul Salmon and Clare Dallat  
Room: Oceanic 7

# Conference at a Glance

**AHFE 2016  
REGISTRATION DESK  
LOCATED AT  
WALT DISNEY WORLD®  
DOLPHIN (LOBBY LEVEL)**

**REGISTRATION DESK OPEN:**

Tuesday, July 26.....13:00 - 18:00  
 Wednesday, July 27.....7:00 - 18:00  
 Thursday, July 28.....7:00 - 18:00  
 Friday, July 29.....7:00 - 18:00  
 Saturday, July 30.....7:30 - 16:00  
 Sunday, July 31.....7:30 - 14:00

ACRONYM	TRACK
ADHMS	Applied Digital Human Modeling and Simulation
APD	Affective and Pleasurable Design
AVI	Human Factors in Transportation - Aviation
CC	Cognitive Computing
CCDM	Cross-Cultural Decision Making
CN	Cognitive and Neuroergonomics
CYBER	Human Factors in Cybersecurity
DI	Design for Inclusion
ED	Ergonomics in Design
EMUSP	Ergonomics Modeling, Usability & Special Populations
ENERGY	Human Factors in Energy: Oil, Gas, Nuclear and Electric Power Industries
HC	Human Factors and Ergonomics in Healthcare
HFBMS	Human Factors, Business Management and Society
HFML	Human Factors in Management and Leadership
HFRUS	Human Factors in Robots and Unmanned Systems
HFSIM	Human Factors and Simulation
HFSSE	Human Factors, Software, and Systems Engineering
HSSE	Human Side of Service Engineering
MAR	Human Factors in Transportation - Maritime
MFG	Human Aspects of Advanced Manufacturing (HAAMAHA)
PEHF	Physical Ergonomics & Human Factors
RR	Human Factors in Transportation - Road & Rail
SINF	Human Factors and Sustainable Infrastructure
SMHF	Safety Management and Human Factors
SOE	Social & Occupational Ergonomics
SOR	Human Factors in Sports and Outdoor Recreation
SYSI	Human Factors and System Interactions
TELS	Human Factors in Training, Education, and Learning Sciences

<b>SCIENTIFIC ADVISORY BOARD (SAB) MEETING SATURDAY, JULY 30, 13:00-13:30 (SIMULTANEOUS)</b>	ROOM	CONFERENCE/TRACK
	Asia 1	Affective and Pleasurable Design
	Asia 2	Digital Human Modeling and Applied Optimization
	Asia 3	Human Aspects of Advanced Manufacturing (HAAMAHA)
	Asia 4	Human Factors and Ergonomics in Healthcare
	Asia 5	Human Factors and Sustainable Infrastructure
	Europe 1	Human Factors and System Interactions
	Europe 2	Human Factors in Management and Leadership
	Europe 3	Human Factors in Transportation: Road & Rail
	Europe 4	Human Factors in Robots and Unmanned Systems
	Europe 5	Human Side of Service Engineering
	Europe 6	Safety Management and Human Factors
	Europe 7	Human Factors and Simulation

# Conference at a Glance

**Friday, July 29, 2016**

#	TITLE	ROOM	TRACK
<b>Session Time: 8:00 - 10:00</b>			
1	Plenary: The Human Side of Service Engineering	Australia 2	HSSE
2	Emotional Engineering I	Asia 1	APD
3	Plenary: Cross Cultural Decision Making	Asia 2	CCDM
4	Usable and Accessible Content for Digital Print and Interface Design	Asia 3	CN
5	Human Factors in Management	Asia 4	ED
6	Human Factors and Ergonomics in Surgery	Asia 5	HC
7	Human Aspects in Composite Manufacturing and Products Evaluation	Oceanic 1	MFG
8	Construction Safety I	Oceanic 3	SMHF
9	Prevention of Work-Related Musculoskeletal Disorders	Oceanic 5	PEHF
10	Muscle Fatigue and Implementation in Occupational Ergonomics	Oceanic 7	PEHF
11	Road and Rail: Ergonomic Analysis and Driving Assistance	Europe 4	RR
12	Safety and Work-Related Accidents	Europe 8	SOE
13	Ergonomics and Applied Design	Europe 2	EMUSP
14	Choosing a Simulation or Interface Design for Safety Focused Research	Europe 5	ENERGY
15	Human Systems Integration Design	Europe 7	YSI
16	Commitment and Motivation in Management and Leadership	Europe 1	HFBMS
17	Competency-Based Education and Personalized Learning	Europe 3	TELS
18	Cybersecurity Training	Oceanic 2	CYBER
19	Designing for Inclusion in the Public Sector and Cultural Heritage	Oceanic 4	DI
20	Essential Management Skills: A Practical Approach	Oceanic 6	HFML
21	Innovative Design I	Oceanic 8	ED
22	Cognitive and Behavioral Modeling for Military Functions	Europe 6	HFSIM
<b>10:00 - 10:30 Refreshments will be provided in Atlantic Hall</b>			
<b>Session Time: 10:30 - 12:30</b>			
23	Smart, People-Centered Service Systems with Cognitive Assistants for All Occupations	Australia 2	HSSE
24	Design That Makes Us Happy	Asia 1	APD
25	Aviation and Strategic Planning	Asia 2	AVI
26	Usability and User Experience in Design	Asia 3	ED
27	Dynamic PMESII Modeling in Complex Environments	Asia 4	CCDM
28	Virtual Reality Challenges for the Future of Design	Asia 5	ED
29	Human Factors and Ergonomics and Healthcare Professionals	Oceanic 1	HC
30	Systems Engineering Applications I	Oceanic 3	HFSSE
31	Construction Safety II	Oceanic 5	SMHF
32	Smarter Ergonomics Design	Oceanic 7	PEHF/ADHMS
33	Rail Operations I	Europe 6	RR
34	Pedestrians	Europe 4	RR
35	Ergonomics and Material Environment Design I	Europe 8	SINF
36	Ergonomics and Design for All	Europe 2	EMUSP
37	Decision Making and Cognition	Europe 5	SOR
38	Innovative Human-Machine Interfaces in the Automotive Domain	Europe 7	YSI
39	Biomechanical Evaluations	Europe 1	PEHF
40	Education Research and Applications I	Europe 3	TELS
41	Design for Inclusion and Product Development	Oceanic 4	DI
42	Performance Management and Organizational Learning	Oceanic 6	HFML
43	Knowledge Creation for the Future	Oceanic 8	HFBMS
44	Contextual Factors and Innovation in Social and Occupational Ergonomics	Oceanic 2	SOE

# Conference at a Glance

**Friday, July 29, 2016**

#	TITLE	ROOM	TRACK
<b>Session Time: 13:30 - 15:30</b>			
45	Advances in Simulation-Based Training in Healthcare	Australia 2	HSSE
46	Emotional Engineering II	Asia 1	APD
47	Cybersecurity Panel: The Risk/Utility Tradeoff in Cybersecurity	Asia 2	CYBER
48	Influencing Design with Cognitive and Neuroergonomics	Asia 3	CN
49	Ergonomic Design for Industry and MSD	Asia 4	ED
50	Human Factors and Ergonomics in Healthcare Professions	Asia 5	HC
51	Human Aspects in Textile Manufacturing and Products Evaluation	Oceanic 1	MFG
52	Safety Management and Human Factors I	Oceanic 3	SMHF
53	Musculoskeletal Disorders	Oceanic 5	PEHF
54	Intersections	Oceanic 7	RR
55	Driver Distraction and Fatigue	Europe 6	RR
56	Macroergonomic Systems	Europe 4	SOE
57	Ergonomics and Environmental Design	Europe 8	EMUSP
58	Ergonomic Design and Accessibility	Europe 2	EMUSP
59	Analysis of Individual and Team Sports I	Europe 5	SOR
60	Human-Machine Interactions and Usability	Europe 7	SYSI
61	Clothing and Personal Protective Equipment	Europe 1	PEHF
62	Human-Centered Learning Design	Europe 3	TELS
63	A Vision for Future Soldier-Robot Teams	Oceanic 2	HFRUS
64	Design for Disability and Social Inclusion	Oceanic 4	DI
65	Designing for Inclusion: Methodology and Future Trends	Oceanic 6	DI
66	Decision-Making in Human Aspects of Operations in the Military Environment	Oceanic 8	CCDM
<b>15:30 - 16:00 Refreshments will be provided in Atlantic Hall</b>			
<b>Session Time: 16:00 - 18:00</b>			
67	Advances in Quality and Safety in Healthcare	Australia 2	HSSE
68	Designing Affective, Pleasurable and Humorous Interactions	Asia 1	APD
69	Applied Digital Human Modeling and Simulation I	Asia 3	ADHMS/ HFSIM
70	Ergonomics in Clothing and Footwear Design	Asia 4	ED
71	Cross-Cultural Comparisons in Business, Education, and Outlook	Asia 5	CCDM
72	Human Factors and Ergonomics in Healthcare Systems	Oceanic 1	HC
73	Ergonomic Design of Future Production Systems	Oceanic 3	MFG
74	Safety Management and Human Factors II	Oceanic 5	SMHF
75	Product Design	Oceanic 7	PEHF
76	Anthropometry	Europe 6	PEHF
77	Rail Operations II	Europe 4	RR
78	Human Aspects of Implementation of Changes	Europe 8	SOE
79	Cognitive Computing I	Europe 5	CC
80	Innovation on Crisis and Emergency Management Applications	Europe 7	SYSI
81	Innovation Management and Leadership	Europe 1	HFBMS
82	Confronting Human Factors Challenges	Europe 3	HFRUS
83	Cybersecurity Interface and Metrics	Oceanic 2	CYBER
84	Inclusive Design is Good Design: Future Strategies and Challenges of Inclusive Design	Oceanic 4	DI
85	Global Perspectives on People-Centered Design	Oceanic 6	DI
86	Leadership Style and Management System	Oceanic 8	HFML
87	Human Factors in Aviation I	Asia 2	AVI
88	Driver Behavior I	Europe 2	RR

#	TITLE	ROOM	TRACK
<b>Session Time: 8:00 - 10:00</b>			
89	Integrating Health Services Engineering: A Multidimensional Approach	Australia 2	HSSE
90	Biofeedback Analysis and Interactive Systems	Asia 1	APD
91	Cultural Factors in Cybersecurity	Asia 2	CCDM/ CYBER
92	Applied Digital Human Modeling and Simulation II	Asia 3	ADHMS/ HFSIM
93	User Research in Design I	Asia 4	ED
94	Human Performance and Safety Assessment in the Maritime Domain	Asia 5	MAR
95	Internet of Things and Systems Engineering Lifecycle	Oceanic 1	HFSSE
96	Industrial Robotics and Intelligent Automation I	Oceanic 3	MFG
97	Safety Management and Human Factors III	Oceanic 5	SMHF
98	Performance and Productivity	Oceanic 7	PEHF
99	Modelling and Systems in Occupational Ergonomics	Europe 6	SOE
101	Ergonomics in Building and Architecture I	Europe 8	SINF
102	Ergonomic and Assistive Technology II	Europe 2	EMUSP
103	Interface Design and Usability Evaluation for Healthcare and Safety	Europe 5	EMUSP
104	Analysis of Individual and Team Sports II	Europe 7	SOR
105	Panel Discussion - Challenges for Rapid Operationalization of New Computing Technologies for Teams Dealing with Complex Dynamic Environments	Europe 1	SYSI
106	Organizational and Team Learning	Europe 3	TELS
107	Human-Agent Teaming	Oceanic 2	HFRUS
108	Cybersecurity Behavior	Oceanic 4	CYBER
109	Multisensory Design and Mobility for Special Needs	Oceanic 6	DI
110	Vehicle Automation I	Oceanic 8	RR
<b>10:00 - 10:30 Refreshments will be provided in Atlantic Hall</b>			
<b>Session Time: 10:30 - 12:30</b>			
111	Linking Cognitive Workload to Performance During Human-Computer Interactions	Australia 2	HSSE
112	Affective Value Creation / Kawaii I	Asia 1	APD
113	Human-Machine Interactions and Tools	Asia 2	CCDM
114	Physiological Monitoring and Interaction	Asia 3	CN
115	User Research in Design II	Asia 4	ED
116	Human Factors and Ergonomics in Healthcare Safety	Asia 5	HC
117	Safety Management and Human Factors IV	Oceanic 3	SMHF
118	Physical Ergonomics: Muscles, Fatigue and Comfort	Oceanic 5	PEHF
119	Road and Rail: Logistics and Passengers	Oceanic 7	RR
120	Accidents and Pedestrian Modeling	Europe 6	RR
121	Ergonomics Modeling for Industry	Europe 4	EMUSP
122	Reducing Human Error Through Situation Awareness, Training, and Simulations	Europe 8	ENERGY
123	Systems Thinking in Sport and Outdoor Recreation	Europe 2	SOR
125	The Future of Human Factors	Europe 7	SYSI
126	Ergonomic and Assistive Technology I	Europe 1	EMUSP
127	Training Applications in Military and Operational Environments	Europe 3	TELS
128	From Theory to Application: UAV and Human-Robot Collaboration	Oceanic 2	HFRUS
129	Inclusive and Universal Design in Clothing, Footwear and Accessories	Oceanic 4	DI
130	Gender and Leadership	Oceanic 6	HFML
131	Training and Learning Applications	Oceanic 8	TELS
132	Panel: Modeling Sociocultural Factors in Conflict and Stability	Oceanic 1	CCDM

#	TITLE	ROOM	TRACK
<b>Session Time: 13:30 - 15:30</b>			
133	Data-Driven Services in Omni-Channel Customer Relations	Australia 2	HSSE
134	Design of Human Interface and Affective Communication I	Asia 1	APD
135	Panel: Loss of Control in Flight (LOC-I)	Asia 2	AVI
136	Human Factors and Simulation	Asia 3	HFSIM
137	User Research in Design III	Asia 5	ED
138	Human Factors and Ergonomics in Medical Devices	Oceanic 1	HC
140	Ergonomics Design of Manufacturing Processes	Oceanic 5	MFG
141	Safety Management and Human Factors V	Oceanic 7	SMHF
142	Physical Ergonomics and Human Factors: Aviation	Europe 6	PEHF
143	Safety Leadership and Organizational Change	Europe 4	HFML
144	Warning Systems/Public Transport	Europe 8	RR
145	Design for Inclusion: The Japanese Perspective Special Session: Plenary Speech by Her Imperial Highness Princess Yohko, Japan	Europe 2	DI
146	Job Satisfaction, Workload, and Stress Burnout	Europe 5	SOE
147	Ergonomics in Building and Architecture II	Europe 7	SINF
148	Ergonomics Modeling and Usability Evaluation I	Europe 1	EMUSP
149	Products and Value Networks in Management and Leadership	Europe 3	HFBMS
150	Game-Based Learning	Oceanic 2	TELS
151	Cybersecurity Situational Awareness for Critical Infrastructure	Oceanic 8	CYBER
152	Designing for Inclusion in Learning Experiences	Oceanic 6	DI
153	Theoretical Advances in Cognitive and Neuroergonomics II	Oceanic 4	CN
<b>15:30 - 16:00 Refreshments will be provided in Atlantic Hall</b>			
<b>Session Time: 16:00 - 18:00</b>			
154	Multi-Sided Measurement of Service System	Australia 2	HSSE
155	Affective Value Creation / Kawaii II	Asia 1	APD
156	Human Factors in Aviation II	Asia 2	AVI
157	Foreign Relations: Tools and Analyses	Asia 3	CCDM
158	Ergonomics Evaluations	Asia 4	PEHF
159	Assessing Cognition and Performance	Asia 5	CN
160	Situational Awareness, Design and Computational Modeling	Oceanic 1	ADHMS/ HFSIM
161	Information Design I	Oceanic 3	ED
162	Human Factors and Ergonomics Testing	Oceanic 5	HC
163	Organization Design and Management	Oceanic 7	MFG
164	Safety Management and Human Factors VI	Europe 6	SMHF
165	Safety and Risk Management I	Europe 4	SMHF
166	Wearables and Innovative Interfaces	Europe 8	PEHF
167	Driver Psychophysiology and Eye Tracking	Europe 5	RR
168	Eco-Driving and Electric Vehicles	Europe 7	RR
169	Accidents and Safety	Europe 1	SOE
170	Ergonomics Modeling and Usability Evaluation II	Europe 3	EMUSP
171	Designing for Inclusion for Ageing Population	Oceanic 4	DI
172	Human Resource Management	Oceanic 6	HFML
173	Cybersecurity Research for Human Effectiveness	Oceanic 8	CYBER



#	TITLE	ROOM	TRACK
<b>Session Time: 8:00 - 10:00</b>			
174	Cross-Cultural Collaboration and Its Challenges	Australia 2	HSSE
175	Design of Human Interface and Affective Communication II	Asia 1	APD
176	Affective/Emotion in Design Education (ADE)	Asia 2	APD
177	Toward Culturally-Aware Systems	Asia 3	CCDM
178	Information Design II	Asia 5	ED
181	Human-Oriented Design of Production Systems	Oceanic 5	MFG
182	Safety and Health	Europe 6	PEHF
183	Ergonomics Applications	Europe 4	PEHF
184	Vehicle Automation II	Europe 8	RR
185	Driver Behavior II	Europe 2	RR
187	Ergonomics Modeling and Usability Evaluation III	Europe 7	EMUSP
188	Human Systems Interaction Applications	Europe 1	SYSI
189	Learning Process and Higher Education	Europe 3	TELS
190	Supporting Sensor and UAV Users	Oceanic 2	HFRUS
191	Cybersecurity Personal Security	Oceanic 4	CYBER
192	Designing for Inclusion in the Information Society I	Oceanic 6	DI
193	Business and Leadership	Oceanic 8	HFML
194	Cognitive Computing II	Asia 4	CC
<b>10:00 - 10:30 Refreshments will be provided in Atlantic Hall</b>			
<b>Session Time: 10:30 - 12:30</b>			
195	Evaluation of Services: Methods, Tools and Approaches to Enhance Quality and Operational Sustainability of Services	Australia 2	HSSE
196	Design for Smart Environments and Well Living	Asia 1	APD
197	Theoretical Advances in Cognitive and Neuroergonomics II	Asia 3	CN
198	Assistive Technology in Design	Asia 5	ED
199	Human Factors and Ergonomics in Environmental Design	Oceanic 1	HC
200	Integrated Design of Flexible Production Systems	Oceanic 3	MFG
201	Safety and Risk Management II	Oceanic 5	SMHF
202	Physical Ergonomics and Human Factors	Oceanic 7	PEHF
203	Behavioral Ergonomics	Europe 6	PEHF
204	Education and Hazard Perception	Europe 4	RR
205	Road and Rail Infrastructure	Europe 8	RR
206	Medical Simulation: Filling the Training Gap	Europe 2	HFSIM
207	Ergonomics Modeling and Usability Evaluation IV	Europe 5	EMUSP
208	Applying Human Factors: Building Better Processes, Procedures and Organizations in Energy	Europe 7	ENERGY
209	Panel: Spin In and Spin Out? How Sport Can Learn From Safety Research and Vice Versa	Europe 1	SOR
210	External Business Factors and Change Issues	Europe 3	HFBMS
211	An Exploration of Real-World Implications for Human-Robot Interaction	Oceanic 2	HFRUS
212	Cybersecurity Tools	Oceanic 4	CYBER
213	Designing for Inclusion in the Information Society II	Oceanic 6	DI
214	Panel/Workshop: The Human Performance Envelope – A Paradigm Shift in Human Factors?	Oceanic 8	AVI
215	Contemporary Defense Applications of Social Science	Asia 2	CCDM

#	TITLE	ROOM	TRACK
<b>Session Time: 13:30 - 15:30</b>			
216	Centrality of Human-Side in Services: The Interface of Disruptive Technological Innovations and Consumer Face	Australia 2	HSSE
217	Emotional Experience	Asia 1	APD
218	Sociocultural, Behavioral Modeling for Defense Applications: Theory and Practice	Asia 2	CCDM
219	Performance Assessment	Asia 3	CN
220	Virtual Reality and Simulation	Asia 4	ADHMS/ HFSIM
221	Innovative Design II	Asia 5	ED
222	Human Factors and Ergonomics in Healthcare Communications and Logistics	Oceanic 1	HC
223	Users, Tasks and Tools in the Maritime Domain	Oceanic 3	MAR
224	Human Aspects of Advanced Manufacturing	Oceanic 5	MFG
225	Human Factors and Safety I	Europe 6	SMHF
226	Ergonomics Strategy	Europe 4	PEHF
227	Biomechanics	Europe 8	PEHF
228	Human Performance	Europe 2	PEHF
229	Driver Behavior III	Europe 5	RR
230	Ergonomics Modeling and Usability Evaluation V	Europe 7	EMUSP
231	Health, Injury and Accidents	Europe 1	SOR
232	Examples of Operationalizing New Computing Technologies for Teams Dealing with Dynamic Environments	Europe 3	SYSI
233	eLearning and Teaching Strategies	Oceanic 2	TELS
234	Dissing the Dis – The Swedish Concept	Oceanic 4	DI
235	Leadership Style	Oceanic 6	HFML
236	Systems Engineering Applications II	Oceanic 8	HFSSE
<b>15:30 - 16:00 Refreshments will be provided in Atlantic Hall</b>			
<b>Session Time: 16:00 - 18:00</b>			
237	Planning Session: The Human Side of Service Engineering	Australia 2	HSSE
238	Empathetic Design	Asia 1	APD
239	Human Factors in Aviation III	Asia 2	AVI
241	Innovative Design III	Asia 5	ED
242	Human Factors and Ergonomics in Disaster Scenarios	Oceanic 1	HC
243	Automation and Human-Machine Systems	Oceanic 3	MFG
244	Human Factors and Safety II	Oceanic 5	SMHF
245	Road and Rail Safety	Europe 6	RR
246	Human, Social and Organizational Factors in Industry	Europe 4	SOE
247	Ergonomics and Material Environment Design II	Europe 8	SINF
248	Ergonomics Modeling and Usability Evaluation VI	Europe 2	EMUSP
249	Human Factors in Energy	Europe 5	ENERGY
250	Human Interaction in Automated and Collaborative Systems	Europe 7	SYSI
251	Organizational Behavior and Development	Europe 1	HFBMS
252	Education Research and Applications II	Europe 3	TELS
253	Optimizing Human-Systems Performance through System Design	Oceanic 2	HFRUS
254	Design for Inclusion in the Living Environment and Ageing Population	Oceanic 4	DI
255	Organizational Learning and Performance Management	Oceanic 6	HFML

# Detailed Technical Program

Friday, July 29, 2016

1	<b>Plenary: The Human Side of Service Engineering</b> Co-Chairs: L. Freund, USA, and W. Cellary, Poland	HSSE
8:00-10:00 AUSTRALIA 2	Human factors and ergonomics at Disney: Helping to develop the Disney experience R. Allen and D. Padilla, USA	
2	<b>Emotional Engineering I</b> Co-Chairs: S. Fukuda and K. Watanuki, Japan	APD
8:00-10:00 - ASIA 1	Trial on systematic terminology approach to aid for delight design F. Rovere, T. Murakami and H. Yanagisawa, Japan <b>Kansei database framework for delight design platform</b> H. Yanagisawa, S. Nakano and T. Murakami, Japan <b>Neural correlates of aesthetic sensibility to product appearance</b> K. Ueda, T. Takahashi, T. Noda, H. Yanagisawa and T. Murakami, Japan <b>A walking promotion method using the tuning of a beat sound based on a two-dimensional emotion map</b> E. Tanaka, K. Muramatsu, Y. Osawa, S. Saegusa, L. Yuge and K. Watanuki, Japan <b>Haptic feedback system using informative resisting torque for lever joystick operation</b> K. Kaede and K. Watanuki, Japan <b>Preliminary study of ontological descriptions of emotions in using motion assistance apparatus</b> K. Muramatsu, E. Tanaka and K. Watanuki, Japan <b>Perceived quality &amp; craftsmanship: An engineering approach to trunk lid cut-line</b> E. Ünlükal İlhan, C. Unal and Y. Evren Altinok, Turkey	
3	<b>Plenary: Cross Cultural Decision Making</b> Co-Chairs: M. Hoffman and S. Schatz, USA	CCDM
8:00-10:00 ASIA 2	<b>A 21st century approach for predicting the impact of world events</b> A. Bagherpour, USA <b>Waiting for the fog to lift</b> B. Hagemann, USA <b>Cross-Cultural Decision Making Best Paper Award</b>	
4	<b>Usable and Accessible Content for Digital Print and Interface Design</b> Co-Chairs: K. Vu and R. Proctor, USA	CN
8:00-10:00 - ASIA 3	<b>Usable interfaces for cyber-enabled buildings</b> N. M. Murchison and R. W. Proctor, USA <b>Accessibility evaluation: Manual development and tool selection for evaluating accessibility of E-textbooks</b> Y. Sun, A. Manabat, M. L. Chan, I. Chong and K. -P. Vu, USA <b>Development of a scoring system for evaluating the accessibility of E-textbooks</b> M. L. Chan, Y. T. Sun, A. Tesoro and K. Vu, USA <b>The description-experience gap in the effect of warning reliability on user trust, reliance, and performance in a phishing context</b> J. Chen, A. Xiong, N. Li and R. Proctor, USA <b>Tracking users' fixations when evaluating the validity of a web site</b> A. Xiong, R. Proctor, W.-L. Zou and N. Li, USA <b>Error message design: Where do we go from here?</b> A. Savoy, E. Burkhart and S. Weber, USA	

5	<b>Human Factors in Management</b> Co-Chairs: M. K. Wyrwicka and B. Mrugalska, Poland	ED
8:00-10:00 - ASIA 4	<p><b>Burnout syndrome and musculoskeletal complaints in Mexican middle school teachers in Ciudad Juarez</b>                  A. Maldonado-Macias, J. García-Alcaraz, C. Corchado-Nevarez, J. Hernández-Arellano and Y. Baez-Lopez, Mexico</p> <p><b>Human-automation manufacturing industry system: Current trends and practice</b>                  B. Mrugalska, M. Wyrwicka and B. Zasada, Poland</p> <p><b>The OHS in a development of small enterprises (for example of welding factory)</b>                  A. Górný, Poland</p> <p><b>Comparative study on user and manufacturer perception of ergonomics requirement on sofa design in Malaysia</b>                  A. H. A. Nasir, A. R. Ismail, K. A. M. Daud, S. Ismail, N. Z. Khidzir and D. Mohamad, Malaysia</p> <p><b>Using temporal representations for understanding complex interrelationships for mission planning</b>                  J. Danczyk, S. Kane, D. Houston, M. Voshell, R. Kilgore and C. Hogan, USA</p> <p><b>Systemic assessment of human-factor-based security impact</b>                  F. Pérès, C. Martin and V. Gonzalez-Prida, France/Spain</p> <p><b>The relationship between vitamin D deficiency predisposition among healthy young individuals: A few considerations for human wellbeing and overall system performance</b>                  R. Bitencourt, E. F. de Souza and C. A. da Rosa, Brazil</p>	
6	<b>Human Factors and Ergonomics in Surgery</b> Co-Chairs: D. Yu, USA, and P. K. Ray, India	HC
8:00-10:00 - ASIA 5	<p><b>Analysis of surgeons' muscle activity during the use of a handheld robotic instrument in laparoendoscopic single-site surgery</b>                  F. M. Sánchez-Margallo and J. A. Sánchez-Margallo, Spain</p> <p><b>Assessing the influence of personal and organizational factors on surgeon's performance: A study on surgeons' perceptions</b>                  R. Onofrio and P. Trucco, Italy</p> <p><b>Human reliability analysis (HRA) for surgery: A modified heart application to robotic surgery</b>                  P. Trucco, R. Onofrio and A. Galfano, Italy</p> <p><b>Identifying latent failures in the cardiovascular operating room</b>                  T. Cohen and S. Shappell, USA</p> <p><b>Flow disruptions in image guided spinal surgery</b>                  K. Catchpole, T. Kim, P. Johnson and D. Drazin, USA</p> <p><b>Safety and efficacy of postoperative continuous intra-peritoneal wash with lactated ringer's for minimizing post-myomectomy pelvic adhesions: A pilot clinical trial</b>                  A. Abuelhasan, Egypt</p> <p><b>Recent advancements of human factors in surgery</b>                  C. Canpolat, Turkey</p>	
7	<b>Human Aspects in Composite Manufacturing and Products Evaluation</b> Co-Chairs: H. Hamada and Y. Takai, Japan	MFG
8:00-10:00 - OCEANIC 1	<p><b>Study on light diffusion of creped silk inserted GFRP</b>                  E. Suzuki, T. Kikuchi, K. Fujiwara, M. Saito, Y. Takai and Y. Yang, Japan</p> <p><b>Research and development of robots with advanced skills in hand lay-up</b>                  T. Kikuchi and E. Suzuki, Japan</p> <p><b>Expert's common factor of painting motion in auto repair painting process</b>                  S. Ikemoto, H. Hamada and Y. Takai, Japan</p> <p><b>Effect of expert and non-expert workers' skill level on the quality of glass fiber reinforced composites by hand lay-up method</b>                  X. Xie, L. Chen, Y. Yang, E. Suzuki, T. Kikuchi and H. Hamada, Japan</p> <p><b>Analysis of blowing in quartz glass fire process</b>                  M. Suda, T. Takahashi, A. Hattori, A. Goto, and H. Hamada, Japan</p> <p><b>Process study of hand lay-up method to clarify implicit knowledge of professionals</b>                  T. Motochika, M. Migaki, E. Suzuki and A. Ohtani, Japan</p>	

<p><b>8</b></p>	<p><b>Construction Safety I</b> Co-Chairs: E. Çakit, Turkey, and H. Chunpir, Brazil</p>	<p>SMHF</p>
<p>8:00-10:00 - OCEANIC 3</p>	<p>The psychological contract of safety: The missing link between safety climate and safety behavior in construction sites M. Newaz, P. Davis, M. Jefferies and M. Pillay, Australia</p> <p>Resilience engineering: A state-of-the-art survey of an emerging paradigm for organizational health and safety management M. Pillay, Australia</p> <p>The integration of workers safety and health into sustainable construction practices: A review I. Mosly, Saudi Arabia</p> <p>Shift work case study on Chilean miners I. Castellucci and I. Altamirano, Chile</p> <p>URBE: the human factor in urban context M. Everling, Brazil</p>	
<p><b>9</b></p>	<p><b>Prevention of Work-Related Musculoskeletal Disorders</b> Co-Chairs: Z. Roja and H. Kalkis, Latvia</p>	<p>PEHF</p>
<p>8:00-10:00 - OCEANIC 5</p>	<p>An electromyographic analysis of ‘bend the tool not the wrist’ concept on power tools M. Reinvee and S. Aia, Estonia</p> <p>Physical load among auxiliary construction workers and its analysis with objective ergonomics research method Z. Roja, H. Kalkis, I. Reinholds and I. Roja, Latvia</p> <p>Human factors impact on effective business management H. Kalkis, Z. Roja and I. Reinholds, Latvia</p> <p>Gram – modeling of integrated processes principles H. Pacaiova, Slovakia</p> <p>An ergonomics research and developing on senior citizens’ mobile devices gesture display S. Liu, M. Wang, M. Lin and T. Huang, Taiwan</p> <p>Ergonomic analysis of train driver workplace and passenger seats S. Gupta and A. Gupta, India</p>	
<p><b>10</b></p>	<p><b>Muscle Fatigue and Implementation in Occupational Ergonomics</b> Chair: L. Ma, China</p>	<p>PEHF</p>
<p>8:00-10:00 - OCEANIC 7</p>	<p>Application of hidden Markov model in human motion recognition by using motion capture data J. Z. BolaBola, Y. Wang, S. Wu, H. Qin and J. Niu, China</p> <p>Effect of fatigue and load carrying task on individuals’ gait characteristics L. Li and L. Ma, China</p> <p>Estimating the EMG response exclusively to fatigue during sustained static maximum voluntary contraction J. Chang, D. Chablat, F. Bennis and L. Ma, France/China</p> <p>The metabolic rate of male adults in different garments under different upper limb workloads W. Zhang, H. Du, T. Wang, J. Li and L. Ding, China</p> <p>Study on quantitative evaluation method of cooperative task operation process on the ship Y. Zhang, W. Zhang, J. Xie, S. Guo and L. Ding, China</p> <p>Cycle time influences the development of muscle fatigue at low to moderate levels of intermittent muscle contraction E. Rashedi and M. Nussbaum, USA</p> <p>Identifying ergonomic issues in violin/viola playing Y. Li and Y. Dabiran, USA</p>	

<b>11</b>	<b>Road and Rail: Ergonomic Analysis and Driving Assistance</b> Chair: J. de Winter, The Netherlands	<b>RR</b>
8:00-10:00 - EUROPE 4	<p><b>Modelling human factors for advanced driving assistance system design</b> A. Khan, Canada</p> <p><b>Using adaptive interfaces to encourage smart driving and their effect on driver workload</b> S. Birrell, M. Young, N. Stanton and P. Jennings, UK</p> <p><b>Analyzing placebo effects of real-time travel information for information infrastructure investment decisions</b> D. Y. Song and S. Peeta, USA</p> <p><b>Motorcycle conspicuity and the potential for warning of impending collision</b> P. Hancock, USA</p>	
<b>12</b>	<b>Safety and Work-Related Accidents</b> Chair: S. Aytac, Turkey	<b>SOE</b>
8:00-10:00 - EUROPE 8	<p><b>Machine-man-task system approach and Regulatory Standard NR -17 - Ergonomics</b> N. Pinto, M. Quaresma and K. Hatakeyama, Brazil</p> <p><b>Mobbing as a psycho-social risk at work: A study in Turkey</b> S. Aytac, S. Dursun and A. Gokce, Turkey</p> <p><b>Video gaming and its implications on the epidemiology of office work-related upper limb disorders</b> S. Yap and G. Paul, Australia</p> <p><b>Integral rehabilitation for accident and occupational diseases in Colombian workers</b> J. C. Velasquez, L. M. Ortiz, D. M. Velasquez and P. Vega, Colombia</p> <p><b>Risk assessment on eastern Rajasthan farmers</b> R. Jain, M. L. Meena, G. S. Dangayach and A. K. Bhardwaj, India</p>	
<b>13</b>	<b>Ergonomics and Applied Design</b> Chair: D. Schilberg, Germany	<b>EMUSP</b>
8:00-10:00 - EUROPE 2	<p><b>Study on bottom somatotype characteristics and differences of female youth from Liaoning province and Guangdong province in China</b> J. Zhou and X. Hu, China</p> <p><b>Analysis of back forces while sitting down, seated, and rising from a stationary chair in subjects weighing 136 to 186 kg</b> L. Hu, O. Tor, J. Zhang, B. Tackett and X. Yu, China/USA</p> <p><b>User participation in the design of cockpit interfaces</b> U. Ohlander, J. Alfredson, M. Riveiro and G. Falkman, Sweden</p> <p><b>Application development for gathering "inexperienced UX" data for planning next-generation products</b> T. Mori and M. Nakanishi, Japan</p> <p><b>Development of a hybrid haptic feedback virtual assembly system with natural user interface</b> S. Smith and F. -Y. Yang, Taiwan</p> <p><b>Anthropometric and biomechanic modeling for ergonomic design of medical devices</b> B. Durgun, Turkey</p> <p><b>On the search for new ergonomic parameters: An analysis of industrial products which use biomimicry from organic forms found in nature</b> T. L. Soares, A. Arruda, J. B. Neto, C. Hartkopf and P. Silva, Brazil</p>	

<p><b>14</b></p>	<p><b>Choosing a Simulation or Interface Design for Safety Focused Research</b> Co-Chairs: L. Reinerman-Jones and J. Harris, USA</p>	<p><b>ENERGY</b></p>
<p>8:00-10:00 - EUROPE 5</p>	<p>An overview of the IEEE human factors standard development activities - 2016 D. Desaulniers and S. Fleger, USA The impact of simulation display on nuclear power plant task error frequencies J. Harris, L. Reinerman-Jones and G. Teo, USA Framework for evaluating the impact of environmental conditions on manual actions G. Coles, A. Dalton, K. Branch, R. Prasad, N. Kohn and A. Bittner, USA A virtual reality based approach to improve human performance and to minimize safety risks when operating power electric systems A. Cardoso, P. Prado, G. Lima and E. Lamounier, Brazil The NRC human performance test facility: An approach to data collection using novices and a simplified environment N. Hughes, A. D'Agostino and L. Reinerman-Jones, USA Towards a smart method of designing safety symbols with crowdsourcing and artificial intelligence A. Piper, USA Using the human systems simulation laboratory at Idaho national laboratory for safety focused research J. Joe and R. Boring, USA</p>	
<p><b>15</b></p>	<p><b>Human Systems Integration Design</b> Chair: D. Coelho, Portugal</p>	<p><b>SYSI</b></p>
<p>8:00-10:00 - EUROPE 7</p>	<p>Blind waypoint navigation using a computer controlled vibrotactile belt R. Jimenez and A. Jimenez, USA Horizontal and vertical handheld pointing devices comparison for increasing human systems integration at the design stage M. Lourenço, R. Pitarma and D. Coelho, Portugal Cultural and innovation shaping of human systems integration path to design D. Coelho, Portugal Dynamic gesture analysis for distinguishing between intentional and unconscious motions T. Naka, Japan Reduction of human induced uncertainty through appropriate feedback design M. Oberle, E. Sommer, and C. König, Germany Human factors in ranking presentations using human speech analysis: Case study of Kazakh language presentations A. James and A. Izbassarova, Kazakhstan</p>	
<p><b>16</b></p>	<p><b>Commitment and Motivation in Management and Leadership</b> Co-Chairs: T. Barath, Hungary, and S. Nazir, Norway</p>	<p><b>HFBMS</b></p>
<p>8:00-10:00 - EUROPE 1</p>	<p>Interpretation of the Delphic maxims as applied philosophy in business management and leadership H. Vanharanta and E. Markopoulos, Finland "Help, my expert is leaving next week!" - improving the knowledge acquisition and modelling process within an engineering organization L. Bolton, C. Cadas, K. Cichomska and V. Roe, UK Commitment and motivation in professional organization J. Koskialho, J. Einolander and H. Vanharanta, Finland Master's students' commitment and engagement in their course behavior J. Einolander, H. Vanharanta and A. Visa, Finland Development of students' commitment over time - case study from a Finnish University of Technology J. Einolander and H. Vanharanta, Finland Boost employee motivation through employees' participation in management A. Bakliwal, India An assessment of corporate social responsibility (CSR) awareness and practices in textile industry of Pakistan A. Hussain, S. F. Ali, Q. W. Ahmad and B. U. Islam, Pakistan</p>	

<p><b>17</b></p>	<p><b>Competency-Based Education and Personalized Learning</b> Chair: R. Ford, USA</p>	<p>TELS</p>
<p>8:00-10:00 - EUROPE 3</p>	<p>The impact of competency-based learning and digital self-assessment on facilitating students' cognitive and interpersonal skills Y. Kauffman and D. Kauffman, USA</p> <p>Keeping the HF/UX curriculum current with the critical decision method L. Elliott, USA</p> <p>Virtual environments for competency-oriented education and training T. Alexander, M. Westhoven and J. Conradi, Germany</p> <p>Competence-based, personalized training program for future teachers T. Barath and E. Dombi, Hungary</p> <p>Leverage information communication technologies to encourage smart farming in India S. Chowdhary, India</p> <p>Training in safety and health at work based on the mental model of worker C. Sirqueira, Brazil</p>	
<p><b>18</b></p>	<p><b>Cybersecurity Training</b> Chair: E. Ortiz, USA</p>	<p>CYBER</p>
<p>8:00-10:00 - OCEANIC 2</p>	<p>The importance of information security awareness for the success of business enterprises E. Yildirim, Turkey</p> <p>Investigating the relationship between need for cognition and skill in ethical hackers K. Le Blanc and S. Freeman, USA</p> <p>A white hat approach to identifying gaps between cybersecurity education and training: A social engineering case study K. Young-McLear, J. Benin, G. Wyman and Y. Young-McLear, USA</p> <p>Influence of motivational factors on hackers' and analysts' decisions in dynamic security games Z. Maqbool, V. S. C. Pammi and V. Dutt, India</p> <p>Behavioral cybersecurity: Human factors in the cybersecurity curriculum W. Patterson, C. Winston and L. Fleming, USA</p> <p>Developing an insider threat training environment E. Ortiz, L. Reinerman-Jones and G. Matthews, USA</p> <p>Cyber security, or cyber safety culture? Converting the weakest link into a force E. Molchanova and V. Borilin, Russia</p>	
<p><b>19</b></p>	<p><b>Designing for Inclusion in the Public Sector and Cultural Heritage</b> Co-Chairs: J. Gilbert, USA, and A. Accolla, China/Italy</p>	<p>DI</p>
<p>8:00-10:00 - OCEANIC 4</p>	<p>Making voting by mail usable, accessible, and inclusive K. Summers, W. Quesenbery and A. Pointer, USA</p> <p>Designing for inclusive voting technologies J. Gilbert, W. Eugene, J. Jones, N. Mack, C. Crawford, S. Thomas and B. Posadas, USA</p> <p>Bringing universal usability to all users: A case study on public realm locations of tourist interest in Bhopal, India S. Vardia, R. Khare and P. Khan, India</p> <p>Evaluating complete streets implementation J. Maisel, M. Ranahan, J. Lenker and B. Perez, USA</p> <p>Participatory evaluation of accessibility standards in transport. A contribution to the restructuring of public policy C. Rojas, Colombia</p> <p>Converging research, innovation and design for sustainable neighborhoods between EU and China T. Cattaneo and M. Ni, China/Italy</p>	



<p><b>20</b></p>	<p><b>Essential Management Skills: A Practical Approach</b> Co-Chairs: M. D. Rojas López and L. Londoño, Colombia</p>	<p>HFML</p>
<p>8:00-10:00 - OCEANIC 6</p>	<p><b>Decisions</b> J. Suarez, S. Valencia and J. Parra, Colombia</p> <p><b>Eficom: Game designed for the analysis of effective and efficient communication skills</b> M. Rojas, M. Rojas and K. Villamizar, Colombia</p> <p><b>Trust game in social relations</b> M. Rojas, L. Londoño and M. Gomez, Colombia</p> <p><b>Levels of trust in teachers college</b> M. Rojas, L. J. Carrillo and S. Fernandez Garcis, Colombia</p> <p><b>Human resources and organizational behavior: Cooperation to make networks</b> M. López, M. Corrales and S. Valencia, Colombia</p> <p><b>Communication patterns</b> M. Rojas, A. Correa and M. Henao, Colombia</p>	
<p><b>21</b></p>	<p><b>Innovative Design I</b> Chair: S. Ashdown, USA</p>	<p>ED</p>
<p>8:00-10:00 - OCEANIC 8</p>	<p><b>Using cognitive and physical ergonomic requirements to promote healthy snacking behavior: A refrigerator analysis</b> D. Gruber and T. Berry, USA</p> <p><b>Enhancing user experience in graphic design: A study in (unusual) interaction</b> M. Neves, Portugal</p> <p><b>Analysis of fit and sizing of firefighter gloves using 3D data</b> S. Ashdown, J. Stull and M. Maldonado, USA</p> <p><b>Eco-efficiency, socio-efficiency, eco-effectiveness, socio-effectiveness and product design and development: A systematic review</b> V. Segura and G. García, Colombia</p> <p><b>Smartphone ergonomics: A proposal for older people</b> J. Sheikh, B. Zafar, A. Pervez and Z. Bhutta, Pakistan</p> <p><b>Embedding smart materials into products to motivate the user: Flexers, a smarter approach to finger splinting</b> M. Ajovalasit and M. Micocci, UK</p> <p><b>Evaluation of error occurrence and users overall performance in Portuguese text entry in smartphones equipped with virtual QWERTY keyboards</b> M. Pirk and D. Dantas, Brazil</p>	
<p><b>22</b></p>	<p><b>Cognitive and Behavioral Modeling for Military Functions</b> Chair: T. Jastrzembski, USA</p>	<p>HFSIM</p>
<p>8:00-10:00 - EUROPE 6</p>	<p><b>Games, game-theory, and the science of cybersecurity</b> C. Gonzalez, USA</p> <p><b>Integrating heterogeneous modeling frameworks using the DREAMIT workspace</b> W. Warwick, M. Walsh, S. Rodgers and C. Lebiere, USA</p> <p><b>Personalized air force nurse trauma training through application of a cognitive model</b> T. Jastrzembski, K. Dufour, M. Walsh and T. Millwater, USA</p> <p><b>Minimizing human risk: Human performance models in the space human factors and habitability and behavioral health and performance elements</b> B. Gore, USA</p> <p><b>Human-autonomy team training</b> C. Myers, K. Gluck, J. Harris, P. Halsey and E. Hanson, USA</p>	
<p>10:00 - 10:30 Refreshments will be provided in Atlantic Hall</p>		

<p><b>23</b></p>	<p><b>Smart, People-Centered Service Systems with Cognitive Assistants for All Occupations</b> Chair: J. C. Spohrer, USA</p>	<p>HSSE</p>
<p>10:30-12:30 - AUSTRALIA 2</p>	<p>Reality 2.0 and wisdom computing K. Iwano, Japan Linking business and technology for future customer Y. Sawatani, Japan User-centered arrangement of public services R. Rusek and J. Colomer-Llinas, Spain What makes a system smart? Wise? J. Spohrer, C. Bassano, P. Piciocchi and A. K. Siddike, USA/Italy/Japan The bad ergonomics of order fulfillment in the retail industry J. Galante, USA</p>	
<p><b>24</b></p>	<p><b>Design That Makes Us Happy</b> Chair: Y. A. Kim, USA</p>	<p>APD</p>
<p>10:30-12:30 - ASIA 1</p>	<p>Design happiness is not luck C. Knedler, USA Affective speech design: Emotional I/O L. Hale, USA Aesthetic intelligence for effective and pleasurable design D. Plewe and C. Röcker, Singapore Positive visceral design Y. A. Kim, USA Bridging barriers in doctor-patient communication: Using participatory design for the development of medical pictograms A. Suckstorf, USA Using visual communication to connect with your audience through emotion J. Lantzman, USA Perceived quality &amp; craftsmanship - common terminology proposal for automotive world with guidance of Kansei engineering E. Ü. İlhan and H. Çelik, Turkey</p>	
<p><b>25</b></p>	<p><b>Aviation and Strategic Planning</b> Co-Chairs: B. Blickensderfer and J. Cruit, USA</p>	<p>AVI</p>
<p>10:30-12:30 - ASIA 2</p>	<p>Human systems integration and strategic planning E. Austrian, M. Sawyer and K. Berry, USA Distributed cognition in search and rescue crews K. Plant and N. Stanton, UK How to improve the assessment of general aviation weather-related knowledge and skills J. Cruit, B. Blickensderfer, T. Guinn, J. Cruit, J. Lanicci and B. Thomas, USA If it gets measured, it can be managed S. Burdekin, Australia Embedding culture into accident investigation models H. Omole and G. Walker, UK</p>	

<p><b>26</b></p>	<p><b>Usability and User Experience in Design</b> Chair: M. Soares, Brazil</p>	<p>ED</p>
<p>10:30-12:30 - ASIA 3</p>	<p><b>Using video game patterns to raise the intrinsic motivation to conduct accessibility evaluations</b> A. Henka, A. Stiegler and G. Zimmermann, Germany</p> <p><b>Card UI workspaces for mission planning</b> S. Kane, M. Voshell, C. Hogan, R. Kilgore and J. Danczyk, USA</p> <p><b>A criteria based approach to assess the user experience of driving information proactive system: Integration of guidelines, heuristic mapping and case study</b> M. Duczman, E. Brangier and A. Thévenin, France</p> <p><b>Analysis of the effect of varying trash receptacle distance to the littering behavior of Filipino bus commuters</b> J. A. Balane, K. Felizardo and C. B. LopezTan, Philippines</p> <p><b>Using digital thermography to analyze the product user's affective experience of a product</b> R. Q. Barros, M. M. Soares, M. A. Maçal, A. S. Tavares, J. A. N. Oliveira, J. R. R. Silva, A. S. O. Neves, R. Oliveira and G. O. S. N. Neto, Brazil</p> <p><b>Size effects and scale effects on the usability of tablets in finger pointing and dragging tasks</b> L. Lai and L. -W. Kuo, Taiwan</p> <p><b>Ergonomic aspects in the conception of an off-road vehicle to BAJA-SAE competition</b> B. Seiferdt, M. Ferrer, E. Batiz and A. B. Hurtado, Brazil</p>	
<p><b>27</b></p>	<p><b>Dynamic PMESII Modeling in Complex Environments</b> Chair: B. Kettler, USA</p>	<p>CCDM</p>
<p>10:30-12:30 - ASIA 4</p>	<p><b>Expeditionary modeling for population-centric operations in Megacities: Some initial experiments</b> B. Kettler and J. Lautenschlager, USA</p> <p><b>Time-series analysis of blog and metaphor dynamics for event detection</b> B. Goode, J. Reyes, D. Pardo-Yepez, G. Canale, R. Tong, D. Mares, M. Roan and N. Ramakrishnan, USA</p> <p><b>Using stories to deepen shared human-computer understanding of PMESII systems</b> R. Wray, J. Folsom-Kovarik, D. Schmorrow, R. Jones and R. Marinier, USA</p> <p><b>Modeling causality in sociocultural systems using ensemble methods</b> A. Sliva, S. N. Reilly, D. Blumstein, S. Hookway and J. Chamberlain, USA</p> <p><b>Using survey responses for policy generation for interactive agents</b> E. Nouri and D. Traum, USA</p>	
<p><b>28</b></p>	<p><b>Virtual Reality Challenges for the Future of Design</b> Co-Chairs: P. Noriega and F. Rebelo, Portugal</p>	<p>ED</p>
<p>10:30-12:30 - ASIA 5</p>	<p><b>Virtual reality to study job interview anxiety: Evaluation of virtual environments</b> T. Borges, E. Vilar, P. Noriega, S. Ramos and F. Rebelo, Portugal</p> <p><b>Web press carousel and his effects over news memorization</b> P. Noriega, T. Pinto, J. Assunção, F. Lourenço, C. Ungureanu and E. Ribeiro, Portugal</p> <p><b>Development and validation of a virtual environment for safety warnings behavior compliance evaluation</b> A. Almeida, F. Rebelo and P. Noriega, Portugal</p> <p><b>Virtual reality technologies applied in the building design process: Considerations on human factors and cognitive processes</b> D. Paes and J. Irizarry, USA</p> <p><b>Rapid integration and evaluation of functional HMI components in a virtual reality aircraft cockpit</b> M. Oberhauser, D. Dreyer, T. Convard and S. Mamessier, Germany</p> <p><b>Child personas for political and educational games</b> A. C. Lustosa da Costa, F. Rebelo and J. Teles, Brazil/Portugal</p>	

<b>29</b>	<b>Human Factors and Ergonomics and Healthcare Professionals</b> Chair: T. Bagian, USA	HC
10:30-12:30 - OCEANIC 1	<p><b>A new elderly clothing design reduce nurse aids' occupational injury in nursing home</b> W. -Y. Yang, F. G. Wu and A. Book, Taiwan</p> <p><b>Bedside dialysis and the occupational safety and health impact on the healthcare worker in an acute hospital</b> W. K. Kam, M. Fahmy Bin Abdul Kader Alkaff and P. Geek Pei Tan, Singapore</p> <p><b>Restrain yourself project: Reducing the use of physical restraint in UK mental health settings</b> J. Duxbury, G. Thomson and A. Scholes, UK</p> <p><b>Developing a novel approach for assessing mental models in multidisciplinary operating room teams</b> I. Nakarada-Kordic, J. Weller, C. Webster and A. Merry, New Zealand</p> <p><b>Biomechanical evaluation of patient handling jobs in healthcare: A case study in India</b> D. Sharma, P. Ray and E. Saha, India</p> <p><b>The effect of ergonomic intervention in reducing musculoskeletal disorders by Snook table method in a steel industry</b> E. Darvishi, Iran</p> <p><b>Causation: Unlinking the misconception that all injuries are job related</b> C. Thompson, USA</p>	
<b>30</b>	<b>Systems Engineering Applications I</b> Co-Chairs: G. Wampole, D. Campbell and E. Drewniak, USA	HFSSE
10:30-12:30 - OCEANIC 3	<p><b>A tool-based hybrid methodology for achieving impactful cross-domain systems engineering</b> D. Campbell, E. Drewniak, R. LaFortune and G. Wampole, USA</p> <p><b>Development of weight-in-motion data analysis software</b> R. Tarefder and M. Hasan, USA</p> <p><b>A full-spectrum management tool for user-centered design activity incorporation, valuation and promotion</b> D. Dunkle, USA</p> <p><b>Requirements engineering current practices in KSA</b> S. Alramouni and O. Alrafie, Saudi Arabia</p> <p><b>Play and learn – a serious game for a better understanding of severe accidents in nuclear power plants</b> A. Peeters, S. Tillement and C. Grousseau, Belgium</p> <p><b>Socio-technical systems, adaption and variability – an introduction to the functional resonance analysis method</b> G. Praetorius and M. Studic, UK</p> <p><b>Fast subtraction algorithm and implementation</b> G. Jena, India</p>	
<b>31</b>	<b>Construction Safety II</b> Chair: U. Koç, Turkey	SMHF
10:30-12:30 - OCEANIC 5	<p><b>Practical guide for safety on construction site</b> M. Rolinec, K. Balog and R. Bulla, Slovakia</p> <p><b>The occupational health and safety management systems of big projects</b> U. Koç, Turkey</p> <p><b>Health and safety regulation and its compliance among small and medium-sized enterprise contractors in Ghana</b> Z. Mustapha, C. Aigbavboa and W. Thwala, South Africa</p> <p><b>Utilization of viewing aids for safe operations with excavators</b> M. Koppenborg, M. Huelke, P. Nickel, A. Lungfiel and B. Naber, Germany</p> <p><b>Resilience engineering, gaps and prescription of safe work method statements part 1: The view of organizational outsiders</b> M. Pillay, Australia</p> <p><b>Architecture and public health in the residential sectors of disadvantaged people in Medellin, Colombia</b> A. Gomez Patiño and A. González Castaño, Colombia</p>	

<p><b>32</b></p>	<p><b>Smarter Ergonomics Design</b> Chair: A. Luximon, Hong Kong</p>	<p>PEHF/ ADHMS</p>
<p>10:30-12:30 - OCEANIC 7</p>	<p><b>Effect of a functional garment on postural control for adolescents with early scoliosis: A six-month wear trial study</b> J. Yip, P.-Y. Liu, K.-L. Yick, M.-C. Cheung, C.-Y. Tse and S. -P. Ng, Hong Kong</p> <p><b>Older adults and digital technology: A study of user perception and usage behavior</b> Q. Li and Y. Luximon, Hong Kong</p> <p><b>Academic professors perception of the future of electronic textbooks</b> K. Sheen and Y. Luximon, Hong Kong</p> <p><b>Relationship between footwear design factors and footwear fitting and comfort</b> L. Jiang, A. Luximon and A. Younus, Hong Kong</p> <p><b>The role of footwear fitting and comfort in the environmental impact of footwear</b> A. Luximon and L. Y. Jiang, Hong Kong</p> <p><b>Cushion or stabilizer? Proper selection of running insoles development based on a comprehensive prototype trial</b> C.-X. Yang, A. Luximon, L. Li and Y. Zhao, Hong Kong</p>	
<p><b>33</b></p>	<p><b>Rail Operations I</b> Chair: A. Mills, UK</p>	<p>RR</p>
<p>10:30-12:30 - EUROPE 6</p>	<p><b>Why do trains pass stop signals: How railroad systems produce unwanted behavior</b> J. Multer, H. Safar and E. Roth, USA</p> <p><b>The railroaders' guide to healthy sleep website: A non-regulatory educational resource for railroaders and their support networks</b> H. Howarth, K. Davies-Schriels, J. Snow and M. Coplen, USA</p> <p><b>Reporting on railway fatalities: A review of media reporting in the United States</b> S. Gabree, S. Chase and B. Mejia, USA</p> <p><b>Human factors incident classification system in the UK railways – recent analysis</b> A. Mills, H. Gibson, D. Basacik and N. Bowler, UK</p> <p><b>Is it me or is it you? Assessing the influence of individual and organizational factors on safety performance in the North American railway industry</b> M. Fleming and D. Smibert, Canada</p> <p><b>Human factors analysis of "missed signals" in railway operations</b> D. Blais, Canada</p>	
<p><b>34</b></p>	<p><b>Pedestrians</b> Chair: P. Salmon, Australia</p>	<p>RR</p>
<p>10:30-12:30 - EUROPE 4</p>	<p><b>Wearable GPS data significant activity recognition</b> L. Zhu, USA</p> <p><b>Quantitative evaluation of orientation performance of tactile walking surface indicators for the blind</b> S. Takahashi, T. Ishibashi, K. Sato, S. Ito and S. Fujisawa, Japan</p> <p><b>Proof experiment of LED block equipped with projections to locate travel direction for blind and vision impaired persons</b> H. Nagahama, T. Inagaki, N. Ikeda, K. Takahashi, K. Takeuchi, H. Ogino, K. Sato, S.-I. Ito, M. Seiyama and S. Fujisawa, Japan</p> <p><b>Effect of tire pressure to driving forces at a wheelchair</b> M. Booka, H. Oku, I. Yoneda and S. Fujisawa, Japan</p> <p><b>Development of an effective pedestrian simulator for research</b> R. Sween, S. Deb, D. Carruth, D. Waddell and M. Furuichi, USA/Japan</p> <p><b>Effect of hot weather on walking behavior in Doha</b> K. Shaaban and D. Muley, Qatar</p>	

<p><b>35</b></p>	<p><b>Ergonomics and Material Environment Design I</b> Chair: A. Jaglarz, Poland</p>	<p>SINF</p>
<p>10:30-12:30 - EUROPE 8</p>	<p>Comparison between domestic water heating systems based on either solar heaters or electrical boilers by the life cycle assessment approach R. D. Oliveira, E. H. M. Nunes, J. N. Ribeiro and R. M. Penna, Brazil</p> <p>The role of human factors in sustainable construction project development and use W. Gyadu-Asiedu, Ghana</p> <p>Natural ventilation and its effect on thermal comfort as sustainable strategies in dry hot arid climate: A case study in Damascus K. Mousli and G. Semprini, Syria</p> <p>Aggregate replacement and its usefulness in cement concrete for sustainable development- A study on rubber, jarosite and sandstone aggregates S. Kumar, R. C. Gupta, B. S. Thomas and P. Mehra, India</p>	
<p><b>36</b></p>	<p><b>Ergonomics and Design for All</b> Chair: D. Hooper, USA</p>	<p>EMUSP</p>
<p>10:30-12:30 - EUROPE 2</p>	<p>Predictive use error analysis during product development D. Hooper, USA</p> <p>Managing variations in process control: An overview of sources and degradation methods B. Mrugalska and T. Ahram, Poland/USA</p> <p>Evaluating usability of a battery swap station for electric two wheelers F. -H. Huang, Taiwan</p> <p>Acceptability of battery swapping system for electric two wheelers F. -H. Huang, Taiwan</p> <p>Building an inclusive ecosystem for developers and users: The role of value propositions K. Toulou and E. Bekiaris, Greece</p>	
<p><b>37</b></p>	<p><b>Decision Making and Cognition</b> Chair: A.-C. Macquet, France</p>	<p>SOR</p>
<p>10:30-12:30 - EUROPE 5</p>	<p>Decision-making in sports. Where are we now? A. -C. Macquet, France</p> <p>Knowledge elicitation methods for developing insights into team cognition during team sports N. McNeese, N. Cooke, R. Gray and M. Fedele, USA</p> <p>Effects of cross-sectional shapes of roadside columns on human speed perception Y. Yoshioka, Japan</p> <p>A naturalistic neurophysiological assessment of photographer cognitive state in the vicinity of Mount Everest J. Blitch, USA</p> <p>Cognitive and application barriers to the use of "agonology" in preventive and therapeutic dimension R. Kalina, Poland</p>	

<p><b>38</b></p>	<p><b>Innovative Human-Machine Interfaces in the Automotive Domain</b> Chair: F. Biondi, UK</p>	<p><b>SYSI</b></p>
<p>10:30-12:30 - EUROPE 7</p>	<p><b>Use your brain (and light) for innovative human-machine interfaces</b> F. Biondi and L. Skrypchuk, UK</p> <p><b>Gesture-based and haptic interfaces for connected and autonomous driving</b> J. Terken, P. Levy, C. Wang, J. Karjanto, N. Yusof, F. Ros and S. Zwaan, The Netherlands</p> <p><b>Somatosensory interactions: Exploring complex tactile-audio messages for drivers</b> M. Karam, R. Wilde, and P. Langdon, UK</p> <p><b>Information model for intention based robot human interaction</b> D. Schilberg and S. Schmitz, Germany</p> <p><b>The automotive habitat lab: A new paradigm for the 21st century automotive design</b> V. Gkatzidou, J. Giacomini and L. Skrypchuk, UK</p> <p><b>Augmenting human and machine automotive interactions and ecosystem</b> C. L. Zhu, USA</p>	
<p><b>39</b></p>	<p><b>Biomechanical Evaluations</b> Chair: L. Bier, Germany</p>	<p><b>PEHF</b></p>
<p>10:30-12:30 - EUROPE 1</p>	<p><b>Comfort posture and position of push-pull operation of the sagittal plane in standing</b> A. Yang, W. Fu, G. Cheng, X. Zhang and H. -M. Hu, China</p> <p><b>Effectiveness of a balance chair for maintaining a seating posture during light-duty work</b> N. Hirokawa, T. Tanaka, K. Itose, T. Shibue, T. Hayami, T. Sawai and M. Ohmasa, Japan</p> <p><b>Analysis and evaluation of physical workload regarding non-cyclic tasks</b> L. Bier, K. Roenick, D. Mueglich, A. Sinn-Behrendt, V. Bopp and R. Bruder, Germany</p> <p><b>Investigation of the office environment with ergonomics products</b> R. Mitsuya, S. Morita, K. Matsuura, S. Fukuda, K. Sakuraba and M. Nozaki, Japan</p> <p><b>Biomechanical analysis of industrial jobs with power hand tools and keyboards: A case study in India</b> A. Wankhede, P. Ray and E. Saha, India</p> <p><b>Relationship between anthropometric profile and variations of the heart rate variability in sit position</b> J. C. Pellegrini, J. L. Barreras and C. Lopez, Mexico</p>	
<p><b>40</b></p>	<p><b>Education Research and Applications I</b> Co-Chairs: C. Knott, USA, and T. Alexander, Germany</p>	<p><b>TELS</b></p>
<p>10:30-12:30 - EUROPE 3</p>	<p><b>Engagement in social learning: Detecting engagement in online communities of practice</b> E. Pesare, T. Roselli and V. Rossano, Italy</p> <p><b>Incorporating human factors in course design: Utility of wearable technologies</b> M. Ismail, H. Parsaei and K. Kakosimos, Qatar</p> <p><b>Usability evaluation of a leap motion-based educational application</b> A. S. Alrazooq, B. A. Boreggah, L. A. Alqahtani and R. Jafri, Saudi Arabia</p> <p><b>A comparative study on the usability of different educational platforms used by instructors in the University of the Philippines</b> N. Simon, B. J. Carbonera and B. Custodio, Philippines</p> <p><b>Adaptive learning from simulations</b> R. Pokorny, USA</p> <p><b>Teacher training for work in inclusive educational environment</b> A. Ignatovitch and A. Smantser, Belarus</p> <p><b>Learning workload: Impact on health and performance</b> O. Burov, M. Pertsev and O. Tsarik, Ukraine</p>	

<b>41</b>	<b>Design for Inclusion and Product Development</b> Chair: P. Di Bucchianico, Italy	<b>DI</b>
10:30-12:30 - OCEANIC 4	<p><b>"Tutti a Tavola!" project. A didactic experience on design for all applied to ceramic objects for food and beverage</b>                      G. Di Bucchianico and S. Camplone, Italy</p> <p><b>Improving learning technologies and social inclusion through human centered design and universal design approaches: Novel designing scenarios</b>                      F. Tosi and A. Brischetto, Italy</p> <p><b>From "liquid kitchen" to "shared kitchen": Human-centered design for innovative services of social inclusion in food consumption</b>                      A. Rinaldi, F. Tosi and D. Busciantella Ricci, Italy</p> <p><b>Does design for all need marketing?</b>                      D. Gilardelli and A. Accolla, Italy/China</p> <p><b>The co-creation of an inclusive and participatory brand personality for all</b>                      A. Accolla, China</p>	
<b>42</b>	<b>Performance Management and Organizational Learning</b> Co-Chairs: U. Asgher, Pakistan, and S. Nazir, Norway	<b>HFML</b>
10:30-12:30 - OCEANIC 6	<p><b>Human factor related challenges of marketing construction business enterprise</b>                      Y. Jonas, C. Aigbavboa, J. Yankah and W. Thwala, South Africa</p> <p><b>Sustaining LNG business through engineering professional development program</b>                      N. Widagdo, Indonesia</p> <p><b>Safety management tasks at different management levels</b>                      S. Tappura, A.-M. Teperi and J. Kivistö-Rahnasto, Finland</p> <p><b>Making relationships matter: Director Interlocks and Fortune 500 performance, 1996-2007</b>                      M. Abdollahian, J. Thomas, Z. Yang and Y. -H. Chiang, USA</p> <p><b>Application of technology policies in Turkey</b>                      H. Özkurt Çokgüngör, Turkey</p> <p><b>Creative methods and tools</b>                      S. Tariq, Pakistan</p> <p><b>Measuring the customer satisfaction with using fuzzy sentiment analysis on social media messages</b>                      E. Iskender and I. Armutlulu, Turkey</p>	
<b>43</b>	<b>Knowledge Creation for the Future</b> Chair: F. Hernandez-Rosas, Mexico	<b>HFBMS</b>
10:30-12:30 - OCEANIC 8	<p><b>Knowledge creation and learning in a sugarcane industry in Veracruz, Mexico</b>                      F. Hernandez-Rosas, K. Figueroa-Rodríguez, S. Henneberry and B. Figueroa-Sandoval, Mexico/USA</p> <p><b>Different roles in leadership styles in modern expert organization</b>                      T. Reunanen and J. Kaitonen, Finland</p> <p><b>Path of creativity in entrepreneur: Basic concept of creative economy development</b>                      V. Intrama, S. Sookbanjung, K. Santawee and P. Teerasawad, Thailand</p> <p><b>The impact of hypermobility in the finger joints in flautists</b>                      I. Artigues-Cano, UK</p> <p><b>Transformational leadership: A leap towards NPD team's effectiveness</b>                      A. Kazmi, M. Naaranoja, J. Kytola and J. Kantola, Finland</p> <p><b>Protecting design: Content and knowledge transfer for patents</b>                      R. Watters and D. Craib, Canada</p>	



<p><b>44</b></p>	<p><b>Contextual Factors and Innovation in Social and Occupational Ergonomics</b> Co-Chairs: K.-H. Liu, Taiwan, and W. Lee, USA</p>	<p>SOE</p>
<p>10:30-12:30 - OCEANIC 2</p>	<p>Caregiver centered transfer aid designed for home care needs K. -H. Liu and C. -H. Chen, Taiwan Designing jobs that facilitate knowledge sharing: A network perspective H. Hughes, UK Microbiological digital analysis of hospital tissue coatings in high traffic hospital C. Cantele, P. Rubin, F. Oliveira and F. Oliveira, Brazil Looking beyond the workplace: Construction laborers' working life on duty and off duty W. Lee, K.-Y. Lin, E. Seto and G. Migliaccio, USA Prevalence of work related musculoskeletal disorders among the Iranian working population in different sectors of industries H. Yousefi, E. Habibi and H. Tanaka, Iran/Japan A future framework of knowledge-based ergonomics assessment system at workplace in automotive assembly plant F. Aziz, Z. Ghazalli, N. Mohamed and A. Isfar, Malaysia</p>	
<p>Lunch Break (12:30-13:30) - Enjoy lunch at the restaurant of your choice.</p>		
<p><b>45</b></p>	<p><b>Advances in Simulation-Based Training in Healthcare</b> Co-Chairs: K. Johnson and L. Mazur, USA</p>	<p>HSSE</p>
<p>13:30-15:30 - AUSTRALIA 2</p>	<p>Development and test of simulated scenarios to assess radiation therapy physicians' performance during interaction with computers B. Chera, L. Mazur, P. R. Mosaly, E. Comitz, D. Chang, M. Alley, G. Tracton and L. Mark, USA Physiological evaluation and quantification of physician's cognitive workload during interaction with computer based clinical system P. R. Mosaly, L. Mazur and L. Marks, USA Measuring controller cognitive workload and task loads in hazardous liquids gas and oil pipeline control rooms M. Terranova and C. Alda, USA Improving communication skills with a multimodal simulation-based intervention A. Banerjee and M. Weinger, USA Neuro-feedback as intervention to improve providers' workload and performance during computer-based tasks L. Mazur, A. Cambell, E. Comitz, D. Planting, S. Lowen, P. R. Mosaly, A. Belger, B. Chera and L. Marks, USA</p>	
<p><b>46</b></p>	<p><b>Emotional Engineering II</b> Co-Chairs: S. Fukuda and K. Watanuki, Japan</p>	<p>APD</p>
<p>13:30-15:30 - ASIA 1</p>	<p>Analysis of brain activity during change of indoor thermal environment K. Watanuki and L. Hou, Japan Emotional entrainment enhancement using an active display interface T. Ito and T. Watanabe, Japan Emotion and decision making in an age of unpredictable changes S. Fukuda, Japan Human-machine system modeling for delight design K. Ohtomi, Japan Method to handle haptics optimization of products based on simulation models P. Gust and F. Mersch, Germany Gamification of production? A study on the acceptance of gamified work processes in the automotive industry O. Korn, P. Muschick and A. Schmidt, Germany Japanese packaging design: An approach through ideographic language M. Mercaldi, E. Barcellos, L. Paschoarelli and G. Botura, Jr., Brazil</p>	

47	<b>Cybersecurity Panel: The Risk/Utility Tradeoff in Cybersecurity</b> Chair: R. Chadha, USA	CYBER
13:30-15:30 - ASIA 2	<p>The risk/utility tradeoff in cyber security R. Chadha, USA</p> <p>Cognitive models in cyber security C. Gonzalez, USA</p> <p>Decision support for balancing the risk/utility tradeoff in cyber security D. Nicholson, USA</p> <p>Application of cybersecurity research in operational environments W. Glodek, USA</p> <p>Risk vs resilience: Which is better for utility? A. Kott, USA</p>	
48	<b>Influencing Design with Cognitive and Neuroergonomics</b> Chair: K. Hale, USA	CN
13:30-15:30 - ASIA 3	<p>Cued recall with gaze guiding – Reduction of human errors with a gaze-guiding tool B. Frank and A. Kluge, Germany</p> <p>Investigation of the recognition of the different font sizes on human-machine interface and physiological characteristics for the aged people S. Luo, L. Ding, R. Linghua and L. Yan, China</p> <p>Cognitive ergonomics applied to the eQRH: Developing an electronic quick reaction handbook for use during aviation emergencies M. Crosland, W. Wang, J. Ray, S. Michelson and C. J. Hutto, USA</p> <p>The impact of Chinese cultural elements on the user experience in the Chinese government website design T. Lei, X. Liu, Z. Jin and Y. Wang, China</p> <p>Research on the influence of abstract knowledge to the individual cognitive behavior and innovative design thinking Y. Zhou, Q. Xue, J. Hao and M. -X. Liu, China</p> <p>How the color matching and arrow position affect the design of the bus stop board: An eye movement experimental research C. Zou, N. Lin and Y. Zhang, China</p> <p>Measuring the amplitude of the N100 component to predict the occurrence of the inattentive deafness phenomenon E. Fabre, V. Peysakhovich and M. Causse, France</p>	
49	<b>Ergonomic Design for Industry and MSD</b> Chair: F. Rebelo, Portugal	ED
13:30-15:30 - ASIA 4	<p>Redesign of work-accessories towards minimizing awkward posture and reduction of work elements of a work cycle in shop floor workstation J. Sanjog, R. Baruah, T. Patel and S. Karmakar, India</p> <p>Ergonomical study of workplace using the technique of path process chart P. Magu, K. Khanna and P. Seetharaman, India</p> <p>Postural education: Correlation between postural habits and musculoskeletal pain in school age children G. Desouzart, E. Filgueiras, R. Matos and R. Dagge, Portugal</p> <p>Design and evaluation of an arm support for prevention of MSDs in dentists S. Nallaj and S. Moosavi Razi, Iran</p> <p>Participatory ergonomics management in a textile thread plant in Brazil employing TQM (total quality management) tools C. M. Santos, R. Santos, A. Santos and M. Rosa, Brazil</p> <p>Cooperation between university and industry, a challenge or a reality: An example in an aircraft maintenance company F. Rebelo, P. Noriega, T. Cotrim and R. Melo, Portugal</p> <p>Analysis of the working conditions of mining drill operators in the gravel sector of the mining industry using an ergonomic approach D. F. Fialho, E. Q. F. de Melo, F. Tavora and M. Soares, Brazil</p>	

<p><b>50</b></p>	<p><b>Human Factors and Ergonomics in Healthcare Professions</b> Co-Chairs: H. Fuller and K. Maddox, USA</p>	<p>HC</p>
<p>13:30-15:30 - ASIA 5</p>	<p>Difference in problem-solving thought concerning the infection control of Japanese nurse and Indonesian nurse: Comparison of the result by 4M4E matrix analysis M. Nozaki, H. Ogasawara and R. Mitsuya, Japan</p> <p>Examination of the validity of anatomical knowledge associated with daily lifestyle issues: A comparison between perspectives of anatomy and nursing researchers M. Takayanagi, M. Nozaki, R. Mitsuya, T. Takayanagi and F. Sato, Japan</p> <p>Study of suitability of computer workstations design for nurses' work content F. Moayed, A. Savoy and C. Turpen, USA</p> <p>Addressing the taboos through a gender specific medical training system T. Sotomayor, A. Alban and J. Vela, USA</p> <p>Toward consistent and objective measures of team dynamics during simulation training A. Willemsen-Dunlap, R. Stevens, T. Galloway, J. Gorman and D. Halpin, USA</p> <p>Work related psychosocial and organizational risk factors in nurses and nursing aides on the intensive care unit M. Marçal, Brazil</p>	
<p><b>51</b></p>	<p><b>Human Aspects in Textile Manufacturing and Products Evaluation</b> Co-Chairs: H. Hamada and A. Goto, Japan</p>	<p>MFG</p>
<p>13:30-15:30 - OCEANIC 1</p>	<p>Interval timing analysis of behavior patterns on "kana-ami" making process Z. Wang, K.-I. Tsuji, T. Tsuji, Y. Takai, A. Goto and H. Hamada, China/Japan</p> <p>Study on braiding skill of expert with eye's movement measurement and operating analysis K. Chottikampon, S. Yasuda, S. Mathurosemontri, A. Goto and T. Uozumi, Japan</p> <p>Process analysis of wooden tub manufacturing S. Yasuda, K. Ono, R. Takematsu, M. Aoshima, M. Toyooka, T. Ueshiba and H. Hamada, Japan</p> <p>The study on effect of arm movement in knitting process on knitting quality K. Chottikampon, S. Mathurosemontri, T. Uozumi, A. Goto, T. Funatsuki, M. Inoda and H. Hamada, Japan</p> <p>Evaluation of Japanese kimono fabric dyed by "Kyo-Yuzen-Zome" T. Furukawa, Japan</p>	
<p><b>52</b></p>	<p><b>Safety Management and Human Factors I</b> Chair: A. Martínez Ortiz, Spain</p>	<p>SMHF</p>
<p>13:30-15:30 - OCEANIC 3</p>	<p>At what age is the occupational accident risk high? Analysis of the occurrence rate of occupational accidents by age A. Takahashi and T. Miura, Japan</p> <p>Human factor in occupational risks prevention: From error theories to responsibility and reliability theories A. Martínez Ortiz, Spain</p> <p>To measure OHS management practices in manufacturing companies H. Nordlöf, B. Wirtavaara, H. Högberg and R. Westerling, Sweden</p> <p>Resilience engineering, gaps and prescription of safe work method statements part 2: The view of organizational insiders M. Pillay, Australia</p> <p>Management of public safety artifacts through design W. F. Correia, S. Ximenes, F. Campos and M. Barros, Brazil</p> <p>Burnout in heavy long-haul drivers M. C. Neves and C. Gonçalves, Portugal</p> <p>Evaluation of access and safety conditions for emergency evacuation in Brazilian soccer stadium I. Andrade, D. Brombilla and J. C. Souza, Brazil</p>	

<p><b>53</b></p>	<p><b>Musculoskeletal Disorders</b> Co-Chairs: M. Swangnetr, Thailand, and D. Jones, USA</p>	<p>PEHF</p>
<p>13:30-15:30 - OCEANIC 5</p>	<p><b>Relating musculoskeletal and disability conditions of occupation-induced musculoskeletal disorders to non-occupational congenital disabilities</b> M. Swangnetr, U. Karukunchit, K. Juntaracena, R. Puntumetakul, M. Gross and D. Kaber, Thailand/USA</p> <p><b>The relationship between working conditions and ergonomic/musculoskeletal disorders in a manufacturing facility</b> D. Jones, USA</p> <p><b>Musculoskeletal disorders among rice keeper basketwork workers</b> O. Buranruk, W. Eungpinithpong, R. Puntumetakul and K. Wongwilairat, Thailand</p> <p><b>Prevalence of musculoskeletal disorders among primary school teachers in Nawanshahr (Punjab) - A case study</b> R. Moom, L. Singh and N. Moom, India</p> <p><b>Effect of risk factors on worker safety in tree pruning</b> S. Jiang, USA</p> <p><b>Correlation between the form of ergonomical risk and musculoskeletal remonstrance which is caused by notebooks</b> R. Setyaningrum, A. Asnawati and E. D. Hefni, Indonesia</p>	
<p><b>54</b></p>	<p><b>Intersections</b> Chair: K. Revell, UK</p>	<p>RR</p>
<p>13:30-15:30 - OCEANIC 7</p>	<p><b>Effect of human reactions at signalized intersection on intersection efficiency and safety</b> S. Son, UAE</p> <p><b>An analysis of the start-up delay and safety for signalized intersections: Impact of left-turn phasing sequences</b> M. Shawky, A. Al-Ghafli and H. Al-Harathi, Egypt/UAE</p> <p><b>Improving a roundabout design through simulation in a Unity 3D virtual environment</b> L. Wang, D. Johnson and Y. Lin, USA</p> <p><b>Estimating intersection turning volumes from actuated traffic signal information</b> A. Gholami, USA</p> <p><b>Is it possible to design the 'intersection for all'? An evaluation of new sociotechnical systems-based intersection design concepts</b> P. Salmon, M. Van Mulken, G. Read, N. Goode, G. Walker, M. Lenne and N. Stevens, Australia</p>	
<p><b>55</b></p>	<p><b>Driver Distraction and Fatigue</b> Chair: A. Roberts, UK</p>	<p>RR</p>
<p>13:30-15:30 - EUROPE 6</p>	<p><b>Exploration of the SHRP 2 NDS: Development of a distracted driving prediction model</b> S. Jenkins, J. Codjoe, C. Alecsandru and S. Ishak, USA</p> <p><b>Socializing under the influence of distracted driving: A study of the effects of in-vehicle and outside-of-the-vehicle communication while driving</b> H. Alnizami, I. Alvarez and J. Gilbert, USA</p> <p><b>Risk factors for driver distraction and inattention in tram drivers</b> A. Naweed, J. Rose, S. Singh, Y. Trams and D. Kook, Australia</p> <p><b>ITS and driver cognitive distraction in a different communication modalities: A simulator study</b> A. Zaoral, Czech Republic</p>	

<b>56</b>	<b>Macroergonomic Systems</b> Co-Chairs: L. Pacholski and B. Mrugalska, Poland	SOE
13:30-15:30 - EUROPE 4	<p>The usage of simulation technology for macro-ergonomic industrial systems improvement L. Pacholski and P. Pawlewski, Poland</p> <p>3D laser models for the ergonomic assessment of the working environment M. Butlewski, M. Sławińska and M. Niedzaiecki, Poland</p> <p>A multi-criterial hardware assessment of the psychophysical capacity of workers in the investigation of fatigue G. Dahlke, M. Drzewiecka, M. Butlewski and L. Pacholski, Poland</p> <p>The maintenance management in the macro-ergonomics context M. Jasiulewicz-Kaczmarek, A. Saniuk and T. Nowicki, Poland</p> <p>Agreement for the safety in the building sector as a good practice to improve safety in the work environment J. Frasz, I. Olsztynska and S. Scholz, Poland</p> <p>A process-oriented design and management method knowledge B. Yin and Y. Xiong, China</p>	
<b>57</b>	<b>Ergonomics and Environmental Design</b> Co-Chairs: H. Kalkis, Latvia, and L. Ding, China	EMUSP
13:30-15:30 - EUROPE 8	<p>Subjective experience experimental study on thermal comfort of indoor environment H. Hu, R. Wang, C. Zhao, H. Luo, L. Ding and Y. Qiu, China</p> <p>Ergonomic assessment of environmental conditions in public elementary school classrooms in Quezon City, Philippines C. M. De Guzman, A. Fajardo, F. M. Hubag and B. Custodio, Philippines</p> <p>Practical urban: Urban furniture and its relationship with the city A. Arruda, I. Moroni, P. Bezerra, P. Silva and R. de Paiva, Brazil</p> <p>Method, methodology, and practice: Considerations of design methods for designers and architects G. Rangel de Oliveira and C. Mont'Alvão, Brazil</p> <p>The evaluation of color in the classroom as perceived by students and teachers L. Costa Filho, Brazil</p>	
<b>58</b>	<b>Ergonomic Design and Accessibility</b> Chair: C. Falcao, Brazil	EMUSP
13:30-15:30 - EUROPE 2	<p>Fitting the human to the wheelchair: An expert system approach W. Wazzan, Saudi Arabia</p> <p>Inclusive fashion design: Interdisciplinary practice in the fashion design degree program at SENAC-PE College C. Falcao and D. Simões-Borgiani, Brazil</p> <p>Colors in 3D L. Branco, Brazil</p> <p>Project of a chair lift for use in pool M. Catapan, F. Perussolo, J. Correa, Y. Weschenfelder and M. L. Okimoto, Brazil</p> <p>New interactive approaches in design teaching D. Scodeller, Italy</p> <p>Introducing a new wheelchair propulsion mechanism H. Norasi, Iran</p>	

59	<b>Analysis of Individual and Team Sports I</b> Chair: P. Salmon, Australia	SOR
13:30-15:30 - EUROPE 5	<p><b>Analysis of Japanese football games by the tracking data and real-time text event annotations</b>          Y. Kaneki, M. Miyamoto and Y. Misumi, Japan</p> <p><b>Putting together first- and third-person approaches for sport activity analysis: The case of ultra-trail runners' performance analysis</b>          D. Hauw, N. Rochat, V. Gesbert, T. Astolfi, R. A. Philippe and B. Mariani, Switzerland</p> <p><b>Automatic exercise counting and calorie calculation for outdoor exercise equipment in the park</b>          S. K. Kim and K. -S. Choi, Korea</p> <p><b>Analysis of tools to measure the user experience during the sportive practice of recreational surfing</b>          R. Caselli, M. Gomes Ferreira and B. Gonçalves, Brazil</p> <p><b>Motivating track &amp; field athletes by visualizing training drills and records: extraction and visualization of activities of athletes from blog articles</b>          M. Sano, H. Masuda, K. Yamada and T. Fukuhara, Japan</p> <p><b>The analysis upon the features of the muscles while gripping a handle of fencing by applying JASA</b>          C. -L. Chang and F. -L. Lin, Taiwan</p>	
60	<b>Human-Machine Interactions and Usability</b> Chair: I. L. Nunes, Portugal	SYSI
13:30-15:30 - EUROPE 7	<p><b>A comparison of mobile banking service quality assessment between smartphone and tablet users</b>          S. Prom Tep, M. Arcand, L. Rajaobelina and I. Brun, Canada</p> <p><b>Teaching usability to industrial engineering students</b>          I. L. Nunes, Portugal</p> <p><b>Comparing the effectiveness and accuracy of new usability heuristics</b>          F. Paz, F. A. Paz and J. A. Pow-Sang, Perú</p> <p><b>A conceptual model for the user experience of human-machine cooperation in the internet of (increasingly autonomous) things</b>          M. Hubler, M. Riecken and R. Turner, USA</p>	
61	<b>Clothing and Personal Protective Equipment</b> Co-Chairs: U. Reischl, USA, and R. Abrahão, Brazil	PEHF
13:30-15:30 - EUROPE 1	<p><b>Cooling dynamics of wet clothing</b>          U. Reischl, K. Pace, C. Colby and R. Goonetilleke, Hong Kong</p> <p><b>Mechanical property and function of bamboo charcoal paperboard</b>          T. Kitamura, K. Ito, S. Teramura, H. Nishimura, N. Kuwahara, Z. Zhiyuan and H. Hiroyuki, Japan</p> <p><b>Measuring the influences of footwear shape and area on the coefficient of friction by English XL</b>          C. -C. Chen, Z.-X. Chen, C.-L. Chang, F.-L. Lin and L. Liu, Taiwan</p> <p><b>Effects of body armor fit on marksmanship performance</b>          H. J. Choi, K. Mitchell, T. Garlie, J. McNamara, E. Hennessy and J. Carson, USA</p> <p><b>Study on the operation of liquid-filled Anti-G suit based on finite element method</b>          W. Zhang, Y. Xu, H. Zhang, L. Zou, H. Peng, X. Li and L. Ding, China</p> <p><b>Effectiveness of personal protective equipment for farm workers who grow pineapples</b>          M. C. Gonzaga, R. Abrahão and M. J. Tereso, Brazil</p>	

<p><b>62</b></p>	<p><b>Human-Centered Learning Design</b> Chair: R. Ford, USA</p>	<p>TELS</p>
<p>13:30-15:30 - EUROPE 3</p>	<p><b>Scale and spatial resolution guidelines for the design of virtual engineering laboratories</b> B. Sanders, D. Vincenzi and Y. Shen, USA</p> <p><b>Improvement to the usability of hybrid courses in degree programs at URJC online</b> M. Gertrudix-Barrio, N. Esteban, M. Rajas and M. Redmon, Spain/USA</p> <p><b>The ideal traditional undergraduate classroom layout and its significant factors</b> J. D. Reyes, R. M. Dones and B. Custodio, Philippines</p> <p><b>An analysis of learner experience on MOOCS in mobile and PC learning environment</b> F. Dalipi, A. Imran, F. Idrizi and H. Aliu, Norway</p>	
<p><b>63</b></p>	<p><b>A Vision for Future Soldier-Robot Teams</b> Chair: L. Elliott, USA</p>	<p>HFRUS</p>
<p>13:30-15:30 - OCEANIC 2</p>	<p><b>Autonomous squad member: Goals and progress</b> M. Fields, USA</p> <p><b>Iterative interface design for robot integration with tactical teams</b> K. M. I. Asif, C. Bethel and D. Carruth, USA</p> <p><b>Context sensitive tactile displays for bidirectional HRI communications</b> L. Elliott and B. Mortimer, USA</p> <p><b>An initial investigation of exogenous orienting visual display cues for dismounted soldier-robot communication</b> J. Abich, IV, D. Barber and L. Elliott, USA</p> <p><b>Five requisites for human-agent decision sharing in military environments</b> M. Barnes, J. Chen, K. E. Schaefer, T. Kelley, C. Giammanco and S. Hill, USA</p> <p><b>Initial performance assessment of a control interface for unmanned ground vehicle operation using a simulation platform</b> L. Jensen, T. Garrison, D. Carruth, C. Bethel, P. Durst and C. Goodin, USA</p>	
<p><b>64</b></p>	<p><b>Design for Disability and Social Inclusion</b> Chair: G. Mincolelli, Italy</p>	<p>DI</p>
<p>13:30-15:30 - OCEANIC 4</p>	<p><b>Design for people affected by Duchenne muscular dystrophy proposal of a new type of ankle foot orthosis [AFO] based on 3D indirect survey and 3D printing</b> A. Tursi and G. Mincolelli, Italy</p> <p><b>Design for Duchenne. Guidelines for dwellings' construction or renovation for muscular dystrophy - affected families</b> M. Marchi and G. Mincolelli, Italy</p> <p><b>IESAMI: An intelligent environment to support the academic monitoring and inclusion of students with disabilities in university</b> P. Ingavélez-Guerra, F. Pesántez-Avilés, V. Robles-Bykbaev, J. Yépez-Alulema, C. Timbi-Sisalima and J. R. Hilerá, Ecuador</p> <p><b>Learning from a village: Inclusive design as therapy in dementia care</b> M. Strickfaden and N. Gaudet, Canada</p> <p><b>Communication support with the COMUOON communication support system</b> S. Nakaishi, Japan</p> <p><b>Type fonts for the hearing impaired</b> S. Crenzel, A. Zandomeneghi and A. Salomon, Brazil</p>	

<p><b>65</b></p>	<p><b>Designing for Inclusion: Methodology and Future Trends</b> Chair: Avril Accolla, China/Italy</p>	<p>DI</p>
<p>13:30-15:30 - OCEANIC 6</p>	<p><b>Building bridges between user and designer: Co-creation, immersion and perspective taking</b> S. Martinez, J. Isaacs, F. Fernandez-Gutierrez, D. Gilmour and K. Scott-Brown, Norway</p> <p><b>From design for all to strategic design: The questions designers (should) ask</b> P. Kercher, Italy</p> <p><b>The future of universal design</b> T. L. Liu, USA</p> <p><b>Ask yourself the right question. To know and understand the beauty of human diversity it is the first design step: A design for all structured and autopoietic tool</b> A. Accolla and L. B. Buti, China/Italy</p> <p><b>Inclusive dictionary of technical terms of design</b> E. Santana and I. Maia, Brazil</p> <p><b>Designing for universal access: An evaluation of design tools</b> W. Ning, H. Dong and J. Pan, China</p> <p><b>Designing for accessibility</b> N. Poggio, USA</p>	
<p><b>66</b></p>	<p><b>Decision-Making in Human Aspects of Operations in the Military Environment</b> Chair: L. Bowman, USA</p>	<p>CCDM</p>
<p>13:30-15:30 - OCEANIC 8</p>	<p><b>Minerva project on the Estonian e-residency initiative: Impact of Estonia’s start - up culture on decisions related to prudence &amp; good governance</b> E. Burger and C. Sullivan, USA</p> <p><b>Cultural consistency and variation in moral boundaries governing decision-making &amp; interaction: Measuring group values</b> R. Firat, E. Rogers, H. W. Kwon and S. Hitlin, USA</p> <p><b>Trust &amp; distrust relations across cross-cultural interaction in social media domains</b> H. Liu, USA</p> <p><b>Culturally invariant status processes in operational environments involving decision-making</b> D. Melamed, USA</p> <p><b>New models for on-the-fly simulations of cross cultural interactions</b> D. Robinson and L. Smith-Lovin, USA</p>	
<p>15:30 - 16:00 Refreshments will be provided in Atlantic Hall</p>		
<p><b>67</b></p>	<p><b>Advances in Quality and Safety in Healthcare</b> Co-Chairs: S. Elnahal, L. Mazur and L. Marks, USA</p>	<p>HSSE</p>
<p>16:00-18:00 - AUSTRALIA 2</p>	<p><b>Assessing the quality of the A3 thinking tool for problem solving</b> A. Amos, K. Taylor, K. Johnson, E. Comitz, R. Adams, G. Tracton, B. Chera, L. Marks and L. Mazur, USA</p> <p><b>Human factors and ergonomics challenges in the neonatal intensive care unit: Brainstorming the future</b> N. Yamada, J. Fuerch and L. Halamek, USA</p> <p><b>Diffusion of excellence and best practices in a large, integrated health system</b> S. Elnahal, H. Peabody, C. Givey, A. Ippolito, P. Littlefield and C. Clancy, USA</p> <p><b>Ethics in service design for children with autism and cognitive disabilities</b> D. Satterfield, USA</p> <p><b>Incorporating lean exploration loops into new hospital design</b> K. Johnson, L. Mazur, P. Pooya, J. Chadwick and J. McCreery, USA</p> <p><b>Combining lean implementation with design research methodologies to achieve measurable critical-to-quality outcomes</b> K. Freihoefer, P. Pejsa, A. Zimmer and K. Werkheiser, USA</p>	



68	<b>Designing Affective, Pleasurable and Humorous Interactions</b> Chair: A. Nijholt, The Netherlands	APD
16:00-18:00 - ASIA 1	<p>Designing alternative interactive techniques to aid in prosthetic rehabilitation for children          M. Dombrowski, P. Smith and R. Buysens, USA</p> <p>Towards joking, humor sense equipped and emotion aware conversational systems          P. Dybala, M. Yatsu, M. Ptaszynski, R. Rzepka and K. Araki, Poland</p> <p>Human avatars in playful and humorous environments          A. Nijholt, The Netherlands</p> <p>Designing a humorous workplace: Improving and retaining employee's happiness          M. Andujar, A. Nijholt and J. Gilbert, USA/The Netherlands</p> <p>Toward a multimodal interface that combines singing and drawing          J. Schnepf, USA</p> <p>Designing for affective and pleasurable user experience          B. Eschenbrenner and F. F.-H. Nah, USA</p> <p>The analysis of the impact on the interface design for mobile device in relation with brand preference          B. Jeong, M. Chen, S.-I. Kim and S. Hah, Portugal/South Korea</p>	
69	<b>Applied Digital Human Modeling and Simulation I</b> Co-Chairs: J. Arora and R. Bhatt, USA	ADHMS/ HFSIM
16:00-18:00 - ASIA 3	<p>Digital human modeling for injury prevention          R. Bhatt, T. Marler, J. Arora and K. Abdel-Malek, USA</p> <p>Modeling the perception reaction time and deceleration level for different surface conditions using machine learning techniques          M. Elhenawy, I. El-Shawarby and H. Rakha, USA</p> <p>3D scanning of clothing using a RGB-D sensor with application in a virtual dressing room          M. Holte, Denmark</p> <p>Application of strength requirements to complex loading scenarios          S. England and S. Rajulu, USA</p> <p>Movement variability and digital human models: Development of a demonstrator taking the effects of muscular fatigue into account          J. Savin, M. Gilles, C. Gaudez, V. Padois and P. Bidaud, France</p> <p>Interactive landslide simulator: A tool for landslide risk and damage assessment          P. Chaturvedi, A. Arora and V. Dutt, India</p> <p>Digital human modeling pipeline with a 3D anthropometry database          P. Li, J. Carson, J. Parham and S. Paquette, USA</p>	
70	<b>Ergonomics in Clothing and Footwear Design</b> Co-Chairs: M. Carvalho and P. Arezes, Portugal	ED
16:00 - 18:00 - ASIA 4	<p>Effects of different body postures on anthropometric measures          S. Braganca, P. Arezes, M. Carvalho and S. Ashdown, Portugal/USA</p> <p>A research on ergonomic approaches of apparel designers          O. Kaya and E. Koca, Turkey</p> <p>Costume study on spondylopathy nursing type vest: Based on functional costume studies of human body engineering          X. Hu and Z. Xiao, China</p> <p>Exploring the impact of lifestyle on fashion consumption behavior for older Chinese women          M. Zhang, S. Andrew, G. Warnaby and S. Gill, UK</p> <p>Clothing custom design: Qualitative and anthropometric data collection of a person with multiple sclerosis          B. Brogin, D. Weiss, S. Marchi, S. Oliveira and M. L. Okimoto, Brazil</p> <p>Ergonomics and design-contributions for professional clothing in the hotel business area          A. Fernandes and F. Moreira da Silva, Portugal</p>	

71	<b>Cross-Cultural Comparisons in Business, Education, and Outlook</b> Chair: A. Murata, Japan	CCDM
16:00-18:00 - ASIA 5	<p><b>Dynamics of national culture and employee characteristics on organizational commitment in retail banks in Ghana</b> M. -A. Sanda, Ghana</p> <p><b>Cross-cultural competence and functional diversity in business negotiations: A developing country's perspective</b> O. Anku-Tsedde and B. Dedzo, Ghana</p> <p><b>Investigation of cultural bias using physiological metrics</b> M. Fendley and R. Rigrish, USA</p> <p><b>Effects of price of zero on decision making: An attempt to generalize human's irrational behavior to price of zero</b> A. Murata, Y. Matsushita and M. Moriwaka, Japan</p> <p><b>The preference of using social media by different attachment styles for managing romantic relation</b> W. -C. Lin and Y. -C. Hsu, Taiwan</p> <p><b>Difference analysis of impression on Japan from Chinese students with different education stages</b> X. Zhang, J. Xiang, S. Xiong, H. Li and B. Li, China</p> <p><b>Exploration on the relationship between Chinese characters and ergonomic affordances - leg radical for example</b> W. H. Chen and P. -H. Lin, Taiwan</p>	
72	<b>Human Factors and Ergonomics in Healthcare Systems</b> Co-Chairs: H. Fuller and K. Maddox, USA	HC
16:00-18:00 - OCEANIC 1	<p><b>Health system integration is never just an IT to IT</b> A. Khunlertkit, USA</p> <p><b>A flexible toolkit for evaluating person-centered digital health and wellness at scale</b> M. McGee-Lennon, M.-M. Bouamrane, E. Grieve, C. O'Donnell, S. O'Connor, R. Agbakoba, A. Devlin, S. Barry, A. Bikker, T. Finch and F. Mair, UK</p> <p><b>Application of lean six sigma concepts to medicine dispensation of public health centers</b> M. Pazeti and L. Calache, Brazil</p> <p><b>Lean healthcare as a tool for improvement: A case study in a clinical laboratory</b> K. Oliveira, E. Santos and L. Veraldo, Jr., Brazil</p> <p><b>Virtual communities of practice success in healthcare sector: A comparative review</b> H. Alali, Jordan</p> <p><b>Overlook of patient time log entry errors during emergency department processes</b> B. Kim, USA</p> <p><b>Privacy &amp; security requirement framework for healthcare service solutions</b> D. Ekanayake and P. Jayaweera, Sri Lanka</p>	
73	<b>Ergonomic Design of Future Production Systems</b> Chair: A. Mertens, Germany	MFG
16:00-18:00 - OCEANIC 3	<p><b>Model-based evaluation of hybrid assembly in human-robot cooperation</b> M. Faber, S. Kuz, A. Mertens and C. Schlick, Germany</p> <p><b>Lightweight robots and human interaction in assembly systems</b> W. Bauer, M. Bender, P. Rally, O. Scholtz and M. Hämmer, Germany</p> <p><b>Digital control of flexible labor hours to support agile enterprises and employees concerns</b> W. Bauer, S. Gerlach and M. Hämmerle, Germany</p> <p><b>Increasing work safety for human robot collaboration by usage of anthropomorphic speed profiles of robot movements</b> H. Petruck, S. Kuz, M. Faber, A. Mertens and C. Schlick, Germany</p> <p><b>A comparative empirical evaluation of the accuracy of the novel process language MTM-human work design</b> T. Finsterbusch, A. Petz, M. Faber, J. Härtel, P. Kuhlant and C. Schlick, Germany</p> <p><b>Interaction dialog design for the use of mobile devices while walking</b> J. Conradi, B. Nord and T. Alexander, Germany</p> <p><b>A customizable digital human model for assembly system design</b> J. Deuse, A. Grötsch, L. Stankiewicz and S. Wischniewski, Germany</p>	

<p><b>74</b></p>	<p><b>Safety Management and Human Factors II</b> Chair: H. Nordl�f, Sweden</p>	<p>SMHF</p>
<p>16:00-18:00 - OCEANIC 5</p>	<p>Designing exposure reporting system for firefighters B. Millet, USA</p> <p>Resilience matters M. J. Oliveira and R. Campos e Cunha, Portugal</p> <p>Towards performance assessment of tomorrows operator S. Nazir and J. Ernstsens, Norway</p> <p>A case based approach to assess waiting time prediction at an intensive care unit A. Quintas, H. Vicente, P. Novais, A. Abelha, M. F. Santos, J. Machado and J. Neves, Portugal</p> <p>A method to calculate the accident probabilities in construction industry using a Poisson distribution model S. Bilir and G. E. Gurcanli, Turkey</p> <p>Portuguese physiotherapists’ psychosocial risk factors at work: Results of the factorial validation of the work and health survey L. Costa and M. Santos, Portugal</p> <p>Management systems and the company performance - the integration way A. Pinto, Brazil</p>	
<p><b>75</b></p>	<p><b>Product Design</b> Chair: M.-H. Wang, Taiwan</p>	<p>PEHF</p>
<p>16:00-18:00 - OCEANIC 7</p>	<p>Research on the effect of body height on zonal spring mattress design Y. Zhu, X. C. Zhang, L. Shen and F. Fang, China</p> <p>Ergonomic consideration for wearable device design in frozen shoulder rehabilitation H. -H. Chen, C.-H. Chen, Z.-Y. Hoe and Z. -X. Yin, Taiwan</p> <p>Ergonomic keyboard layout designed for the Filipino language J. Salvo, C. Raagas, M. Tatjana C. Medina and A. Portus, Philippines</p> <p>Redesign the cleaning tools from analysis of working postures at a cleaning job using the task analysis and OWAS methods M. -H. Wang, B.-H. Chen and W. -K. Chiou, Taiwan</p> <p>Design of a universal mounting fixture (UMF) for ROPS using finite element method V. Tewari and A. Shrivastava, India</p> <p>An ergonomic tool to change a flat tire of a car Y. Li and M. Chodapaneedi, USA</p>	
<p><b>76</b></p>	<p><b>Anthropometry</b> Co-Chairs: A. Smythe, USA, and J. Dobson, Australia</p>	<p>PEHF</p>
<p>16:00-18:00 - EUROPE 6</p>	<p>Anthropometric evaluation of the design of the classroom desk for the sixth and the seventh grades of Benghazi schools A. Altaboli, M. Elhinaid, A. Alasbali and I. Ejjam, Libya</p> <p>Develop a circumference measurement device for patient with upper limb lymphedema T. -W. Chang, C.-H. Chen and Z. -Y. Hoe, Taiwan</p> <p>Study on the human body dimensions used for ergonomic design and evaluation of mattress H. Hu, Y. Yao, C. Zhao, F. Yang, L. Luo, Y. Li, F. Zhang and H. Wu, China</p> <p>SizeNorthAmerica – the new North American anthropometric survey: Conceptual design, implementation and results A. Seidl, R. Trieb, H.-J. Wirsching, A. Smythe, T. Guenzel and A. Luebke, USA</p> <p>Assessing the relationship between hand dimensions and manual dexterity performance for Turkish dental students E. Cakit, B. Durgun, B. Durgun and O. Cetik, Turkey</p> <p>Does the 3D shape of underground coal miner’s feet match their internal boot dimensions? J. Dobson, J. Steele and D. Riddiford-Harland, Australia</p>	

<b>77</b>	<b>Rail Operations II</b> Chair: A. Mills, UK	<b>RR</b>
16:00-18:00 - EUROPE 4	<p><b>The use of modelling tool in order to evaluate the dwelling times for trains</b> G. Craveur and O. Anselmi, France</p> <p><b>How has automatic train protection (ATP) impacted train driving? A qualitative study in the Australian rail context</b> A. Naweed and T. Young, Australia</p> <p><b>An overview of the factors associated with driver distraction and inattention within the South African railway industry</b> I. Dambuza, South Africa</p> <p><b>Investigating the potential to mitigate crowding issues on trains by providing improved information to passengers</b> J. Pritchard and J. Preston, UK</p>	
<b>78</b>	<b>Human Aspects of Implementation of Changes</b> Co-Chairs: Z. Wisniewski and A. Polak-Sopinska, Poland	<b>SOE</b>
16:00-18:00 - EUROPE 8	<p><b>Quality management in toy and children’s furniture manufacturing</b> M. Rajkiewicz, A. Walaszczyk and Z. Wisniewski, Poland</p> <p><b>Modelling formation of attitudes to change</b> Z. Wisniewski, A. Polak-Sopinska, M. Rajkiewicz, M. Wisniewska and P. Sopinski, Poland</p> <p><b>Employment opportunities for mature age people in the electrical sector in Lodz Voivodeship in Poland</b> A. Polak-Sopinska, Poland</p> <p><b>Employment of persons with disabilities in Poland: What do small and micro enterprise employers know?</b> A. Polak-Sopinska, Z. Wisniewski and M. Jedraszek-Wisniewska, Poland</p> <p><b>Applying triangulation method to strengthen validity of integrated balanced scorecard’s performance measurement model for supply chain’s actors and regulator</b> E. Kusri, S. Subagyo and N. Masruroh, Indonesia</p>	
<b>79</b>	<b>Cognitive Computing I</b> Chair: M. Andujar, USA	<b>CC</b>
16:00-18:00 - EUROPE 5	<p><b>Simulating human decision-making through intelligent language-based aids</b> V. Chattaraman, W.-S. Kwon, W. Eugene and J. Gilbert, USA</p> <p><b>Application of a simulation-based software tool for the prospective design of IT work places</b> N. Feller, A. Amann, U. Müller, M. Schiffmann, O. Kurscheid and M. Gorzellik, Germany</p> <p><b>Evaluation of user’s affective engagement while interacting with educational technologies: A pilot study</b> M. Andujar, P. Morreale, Y. Jimenez, L. Jimenez and J. Gilbert, USA</p> <p><b>On the modelling of an artificial cognitive system based on the human-brain architecture</b> O. Chernavskaya, D. Chernavskii and Y. Rozhylo, Russia</p> <p><b>Watson health cloud for life sciences compliance</b> V. Chavan, USA</p>	

<p><b>80</b></p>	<p><b>Innovation on Crisis and Emergency Management Applications</b> Co-Chairs: P. Savage-Knepshild, USA, and M. Simoes-Marques, Portugal</p>	<p><b>SYSI</b></p>
<p>16:00-18:00 - EUROPE 7</p>	<p><b>When to interrupt: A comparative analysis of interruption timings within collaborative communication tasks</b> N. Peters, G. Romigh, G. Bradley and B. Raj, USA</p> <p><b>A user-centered design strategy for early soldier inclusion in the U. S. Army acquisition process</b> P. Savage-Knepshild, USA</p> <p><b>The impact of false and nuisance alarms on the design optimization of physical security systems</b> A. Bandlow, K. Jones, N. Brown and L. Nozick, USA</p> <p><b>Support for making decisions about changes to complex training systems</b> K. Neville, S. Sherwood and J. Fowlkes, USA</p> <p><b>Facing disasters - trends in applications to support disaster management</b> M. Simoes-Marques, Portugal</p> <p><b>Development of a case based reasoner for decision support in crisis management</b> J. Borges, J. Pinto and J. Pacheco, Portugal</p>	
<p><b>81</b></p>	<p><b>Innovation Management and Leadership</b> Co-Chairs: T. Reunanen and V. Salminen, Finland</p>	<p><b>HFBMS</b></p>
<p>16:00-18:00 - EUROPE 1</p>	<p><b>Jewelry packages: Some interpolations on design and form</b> S. Rocha, M. A. Benutti and R. Alcarria do Nascimento, Brazil</p> <p><b>Innovativeness through time management</b> T. Reunanen, R. Windahl and H. Vanharanta, Finland</p> <p><b>Integrated service and product innovation on life cycle business co-evolution</b> V. Salminen, H. Ruohomaa and T. Koivisto, Finland</p> <p><b>Involvement of accounting firms in companies' innovation process</b> Y. Castonguay and D. Plamondon, Canada</p> <p><b>Space for company democracy</b> E. Markopoulos and H. Vanharanta, Finland/Greece</p> <p><b>Marketing strategy for developing an innovation oriented brand of micro-enterprises</b> T. - Y. Chang, China</p> <p><b>Innovation</b> L. Naveed, S. Aftab, M. Khan and H. Rasul, Pakistan</p>	
<p><b>82</b></p>	<p><b>Confronting Human Factors Challenges</b> Co-Chairs: P. Savage-Knepshild, C. Burns and K. Tucker, USA</p>	<p><b>HFRUS</b></p>
<p>16:00-18:00 - EUROPE 3</p>	<p><b>Examining human factors challenges of sustainable small unmanned aircraft (sUAS) system operations</b> C. Balog, B. Terwilliger, D. Vincenzi and D. Ison, USA</p> <p><b>Mission capabilities-based testing for maintenance trainers: Ensuring maintenance trainers support human performance</b> A. Sorensen, M. Morris and P. Geliga, USA</p> <p><b>Detecting deictic gestures for control of mobile robots</b> T. Nowack, S. Lutherdt, S. Jehring and P. Kurtz, Germany</p> <p><b>HSI contract language for tele-operated programs</b> C. Burns, USA</p> <p><b>Human system integration issues impacting tactical capabilities of unmanned systems in US Army operational environments</b> N. Gaither, USA</p> <p><b>Agile design &amp; Section 804</b> A. Lemon and K. Van Orden, USA</p> <p><b>Effects of time pressure and task difficulty on visual search</b> X. Fan, Q. Zhou, F. Xie and Z. Liu, China</p>	

<p><b>83</b></p>	<p><b>Cybersecurity Interface and Metrics</b> Co-Chairs: G. Denker and A. Cain, USA</p>	<p>CYBER</p>
<p>16:00-18:00 - OCEANIC 2</p>	<p><b>A rapid serial visual presentation approach for graphical authentication</b> A. Cain and J. Still, USA</p> <p><b>Information security application design: Improving signal-to-noise ratio</b> S. Dutta and G. Joyce, USA</p> <p><b>Towards more effective cyber warriors interfaces through semantic modeling of user context</b> R. Senanayake and G. Denker, USA</p> <p><b>Extended password security via cloud: CloudPass</b> J. Eich, L. John, K. Smith and E. Cankaya, USA</p> <p><b>Biometric-based cybersecurity techniques</b> P. Griffin, USA</p> <p><b>Users' privacy perceptions about wearable technology: Examining influence of personality, trust and usability</b> K. Lamb, H.-Y. Huang, A. Marturano and M. Bashir, USA</p> <p><b>Cyber operator perspectives on security visualization</b> A. D'Amico, L. Buchanan, D. Kirkpatrick and P. Walczak, USA</p>	
<p><b>84</b></p>	<p><b>Inclusive Design is Good Design: Future Strategies and Challenges of Inclusive Design</b> Co-Chairs: M. Strickfaden, Canada, and J. Herssens, Belgium</p>	<p>DI</p>
<p>16:00-18:00 - OCEANIC 4</p>	<p><b>User knowledge creation in universal design processes</b> E. Ielegems, J. Herssens and J. Vanrie, Belgium</p> <p><b>Light: Towards an inclusive perspective</b> K. Janssens, J. Vanrie, K. Quartier and S. Danschutter, Belgium</p> <p><b>Representation as multisensorial inclusion in museum environments</b> M. Strickfaden and J. Rieger, Canada</p> <p><b>Psychosocial inclusivity: Beyond physical inclusion in design</b> F. Nickpour, UK</p> <p><b>How the internet of things will make design more inclusive</b> S. Wilcox and H. Dubberly, USA</p>	
<p><b>85</b></p>	<p><b>Global Perspectives on People-Centered Design</b> Chair: R. Gheerawo, UK</p>	<p>DI</p>
<p>16:00-18:00 - OCEANIC 6</p>	<p><b>Social and global: People-centred innovations in transport</b> R. Gheerawo and D. Harrow, UK</p> <p><b>Global perspectives on people-centered design - a holistic strategy for inclusive culture</b> V. Fletcher, USA</p> <p><b>Inclusive design that brings dignity to dismal situations</b> S. Choi, USA</p> <p><b>Universal design in Norway – an ambitious vision put into practice</b> O. Eikhaug, Norway</p> <p><b>Unmapping inclusive design: A global perspective</b> S. Donahue, USA</p> <p><b>Six predictions about the future of design</b> D. Formosa, USA</p>	

<p><b>86</b></p>	<p><b>Leadership Style and Management System</b> Chair: T. Barath, Hungary</p>	<p>HFML</p>
<p>16:00-18:00 - OCEANIC 8</p>	<p>Human error, management systems and organizational culture G. Collazo, USA</p> <p>Parameters for assessing a building project within the purview of constructability A. Shrivastava, D. Chaurasia and S. Saxena, India</p> <p>Contemporary labor and human resources management as seen by the production sector and the judiciary employees J. Rymaniak, Poland</p> <p>Learning schools, learning leaders T. Barath, Hungary</p> <p>The atypical approach to the development process of tertiary education A. Mészáros Attila and E. Baróti, Hungary</p> <p>Transformational leadership and stakeholder value creation: A self-governance mechanism G. A. Rubasundram, Malaysia</p> <p>Effects of job insecurity in construction companies in Johannesburg, South Africa M. Mukuka, South Africa</p>	
<p><b>87</b></p>	<p><b>Human Factors in Aviation I</b> Chair: M. Sawyer, USA</p>	<p>AVI</p>
<p>16:00-18:00 - ASIA 2</p>	<p>Task demand variation in air traffic control: Implications for workload, fatigue, and performance T. Edwards, C. Gabets, J. Mercer and N. Bienert, USA</p> <p>How important is conflict detection to the conflict resolution task? J. Mercer, C. Gabets, A. Gomez, T. Edwards, N. Bienert, L. Claudatos and J. Homola, USA</p> <p>Using the i-VISION tool for semi-automating human factors analyses K. Plant and N. Stanton, UK</p> <p>New approach to determination of main solution taking dominant of air traffic controller during flight level norms violation O. Reva, S. Borsuk, B. Mirzayev Mushgyul-Ogli and P. Mukhtarov Shirin-Ogli, Ukraine</p> <p>A data analytics based approach to human factors issues in voluntary aviation safety reports M. Sawyer, K. Berry and E. Austrian, USA</p> <p>The challenges when experts assess risks N. Karanikas, The Netherlands</p>	
<p><b>88</b></p>	<p><b>Driver Behavior I</b> Chair: P. Salmon, Australia</p>	<p>RR</p>
<p>16:00-18:00 - EUROPE 2</p>	<p>First adopter's usage and understanding of partial automated vehicle: An interview study R. Lin and W. Zhang, China</p> <p>Visual steering control in lane change maneuver L. Zhang and W. Zhang, China</p> <p>Effects of driver characteristics and driver state on predicting turning maneuvers in urban areas: Is there a need for individualized parametrization? M. Graichen and V. Nitsch, Germany</p> <p>Presentation characteristics of in-vehicle secondary tasks: A visual analysis K. Parnell, N. Stanton and K. Plant, UK</p> <p>Modelling of individual differences in car-following behavior of drivers M. Mian, R. Jahangir and W. Jaffry, Pakistan</p> <p>Using driver behavior information to determine turning movement proportions in shared lanes A. Gholami, USA</p>	

<p><b>89</b></p>	<p><b>Integrating Health Services Engineering: A Multidimensional Approach</b> Chair: C. Brown, USA</p>	<p>HSSE</p>
<p>8:00-10:00 - AUSTRALIA 2</p>	<p>Integrating health services engineering: A multidimensional approach C. Brown, USA</p> <p>3DPRO – Development of low-cost prosthetics using 3D printing technologies C. Zagel, S. Huber, J. Suessmuth, M. Obermeier and F. Bodendorf, Germany</p> <p>Virtual rehabilitation use for paretic upper limb for individuals with chronic hemiparetic stroke R. C. M. Lima, A. D. Dias de Menezes, M. C. Gomes Inácio, S. M. Amaral and R. R. Romano, Brazil</p> <p>Use of smart phones to improve the human factors engineering of people suffer from chronic diseases S. Elshourbagy, Egypt</p> <p>Design and delivery of a people oriented remote health service of emerging markets S. Parikh, India</p>	
<p><b>90</b></p>	<p><b>Biofeedback Analysis and Interactive Systems</b> Chair: S.-Y. Yoon, USA</p>	<p>APD</p>
<p>8:00-10:00 - ASIA 1</p>	<p>Understanding the affective response of consumers to the visual complexity of a fashion store: A psychophysiological approach J. Y. Jang, E. Baek, S.-Y. Yoon and H. J. Choo, Korea/USA</p> <p>The effects of art in retail environments H. Oh, H. K. Lee, J. Kim and H. J. Choo, USA/Korea</p> <p>Gender differences in psychophysiological and affective responses to designed environments: A pilot study S. -Y. Yoon and S. Akre, USA</p> <p>The effect of store design factors on perception of fashion brand authenticity: Comparison between luxury and fast fashion brands Y. Lee, S. Kim, H. Oh and C. Youn, Korea/USA</p> <p>Movement influences cognitive and emotional responses to stimuli viewed on mobile phones K. Wise, USA</p> <p>Memory of Things (MOT) – Interactive old things memory system C. -K. Lim, Taiwan</p>	
<p><b>91</b></p>	<p><b>Cultural Factors in Cybersecurity</b> Chair: L. Saner, USA</p>	<p>CCDM/ CYBER</p>
<p>8:00-10:00 - ASIA 2</p>	<p>Assessing aptitude and talent for cyber operations L. Saner, S. Campbell, P. Bradley, E. Michael, N. Pandza and M. Bunting, USA</p> <p>How hackers think: A discussion on the mental models and cognitive patterns of high-tech wizards T. Summers, USA</p> <p>Computer programming as a second language N. Pandža, USA</p> <p>Cyber defense decision making as a function of cultural and personal experience I. Harbison, USA</p> <p>Bot detection and behavior classification in social media C. Lofdahl and B. Skarin, USA</p>	



<p><b>92</b></p>	<p><b>Applied Digital Human Modeling and Simulation II</b> Co-Chairs: D. Patton and T. Murray, USA</p>	<p>ADHMS/ HFSIM</p>
<p>8:00-10:00 -ASIA 3</p>	<p><b>Lessons learned in development of a behavior modeling tool for health intervention design: BehaviorSim</b> T. Murray, E. Hekler, D. Spruijt-Metz, D. Rivera and A. Raij, USA <b>Experimentation system for path planning applied to 3D printing</b> M. Wojcik, I. Pozniak-Koszalka, L. Koszalka and A. Kasprzak, Poland <b>User experience design based on eye-tracking technology: A case study on smartphone apps</b> Q. -X. Qu, L. Zhang, W.-Y. Chao and V. Duffy, China/USA <b>Development of full-resolution anthropometric human models based on nonlinear statistical shape analysis</b> S. Baek, Z. Sun and S. Mate, USA <b>When feedback loops collide: A complex adaptive systems approach to modeling human and nature</b> Z. Yang, P. Neal and M. Abdollahian, USA <b>DhaibaBaby: Development of functional 3D baby models</b> Y. Endo, O. Kusaka, K. Kawasaki and E. Yoshida, Japan <b>Implementing an immersive interactive game environment for ADHD children</b> T. -W. Chang and Y. -S. Wu, Taiwan</p>	
<p><b>93</b></p>	<p><b>User Research in Design I</b> Chair: F. Rebelo, Portugal</p>	<p>ED</p>
<p>8:00-10:00 - ASIA 4</p>	<p><b>Design evaluation of classroom armchairs based on the anthropometric measurements of public elementary school students aged 10-12</b> M. Aralar, L. Mariano, D. De Silva, M. Isip and C. Pesigan, Philippines <b>An integrated analysis of customer requirements for bicycle leisure activity functional clothing design</b> M. -C. Lin, Y.-H. Lin, S.-F. Liu and M. -S. Chen, Taiwan <b>The assessment of QFD applying to curling iron of the hair salon</b> H. -C. Lu and F. -G. Wu, Taiwan <b>Analysis and research on the gesture-based interaction of touch-screen smartphones for the elderly based on ergonomics</b> Y. Zhao and D. Men, China <b>The study of design of senile dementia patients' anti-lost clothing based upon ergonomics</b> X. Hu and J. Y. Zhong, China <b>The form, senses and dynamics: A literature review on the philosophical and technical coherency for the development of the floor-sitting furniture design</b> N. Sani and S. Yusoff, Malaysia <b>Using cognitive and physical ergonomic requirements to promote healthy snacking behavior: A refrigerator analysis</b> D. Gruber and T. Berry, USA</p>	
<p><b>94</b></p>	<p><b>Human Performance and Safety Assessment in the Maritime Domain</b> Chair: P. Di Bucchianico, Italy</p>	<p>MAR</p>
<p>8:00-10:00 - ASIA 5</p>	<p><b>Evacuations of passenger ships in inclined positions – influence of uphill walking and external stressors on decision-making for digital escape route signage</b> S. Kwee-Meier, A. Mertens and C. Schlick, Germany <b>FRAM in FSA – introducing a function-based approach to the formal safety assessment framework</b> G. Praetorius, A. Graziano, J.-U. Schröder-Hinrichs, J.-U. Schröder-Hinrichs and M. Baldauf, Sweden <b>Designing new interfaces for submarines: From cognitive work analysis to ecological interface design</b> D. Fay, A. Roberts and N. Stanton, UK <b>The command team experimental test-bed phase two: Assessing cognitive load and situation awareness in a submarine control room</b> A. Roberts, N. Stanton and D. Fay, UK <b>Passenger safety during rescue and evacuation from passenger vessels: A holistic concept for the integration of technical assistance</b> S. Höckling, A. Kunz and F. Motz, Germany <b>Analytic evaluation of performances errors for container quay crane operators</b> G. Fancello, A. Medda, M. Meloni and P. Fadda, Italy</p>	

<b>95</b>	<b>Internet of Things and Systems Engineering Lifecycle</b> Co-Chairs: G. Joyce and J. Head, USA	HFSSE
8:00-10:00 - OCEANIC 1	<p>Application modernization meets human factors - what's next? J. Head, USA</p> <p>Mobile application usability: Heuristic evaluation and evaluation of heuristics G. Joyce, M. Lilley, T. Barker and A. Jefferies, USA</p> <p>Implementation of human system integration (HSI) into model based system engineering (MBSE) and the system engineering lifecycle at Airbus Defense and Space R. Sharples, UK</p> <p>Human &amp; organizational factors to cloud &amp; Devops adoption S. Joshi and C. White, USA</p> <p>Minding the IOT skills gap: The interplay of contextual awareness and functional equivalence modeling S. Cooper, USA</p>	
<b>96</b>	<b>Industrial Robotics and Intelligent Automation I</b> Chair: S. Fletcher, UK	MFG
8:00-10:00 - OCEANIC 3	<p>Development of a human factors roadmap for successful implementation of industrial human-robot collaboration G. Charalambous, S. Fletcher and P. Webb, UK</p> <p>Investigating the effects of signal light position on human workload and reaction time in human-robot collaboration tasks T. Johnson, G. Tang, S. Fletcher and P. Webb, UK</p> <p>Gesture detection towards real-time ergonomic analysis for intelligent automation assistance C. Mgbemena, J. Oyekan, A. Tiwari, Y. Xu, S. Fletcher, W. Hutabarat and V. Prabhu, UK</p> <p>Assessing graphical robot aids for interactive co-working I. Eimontaite, I. Gwilt, D. Cameron, J. Aitken, J. Rolph, S. Mokaram and J. Law, UK</p> <p>High value intelligent aerospace turbofan jet engine blade re-manufacturing system R. French and H. Marin-Reyes, UK</p>	
<b>97</b>	<b>Safety Management and Human Factors III</b> Co-Chairs: N. Karanikas, The Netherlands, and M. Harnett, Canada	SMHF
8:00-10:00 - OCEANIC 5	<p>Safety coordination in large construction project (completion process of Unit 3 and 4, Mochovce Nuclear Power Plant, Slovak Republic) I. Pekar and M. Rolinec, Slovakia</p> <p>Concept of operations as a boundary object in design and knowledge sharing in nuclear industry J. Laarni, T. Tommila and P. Savioja, Finland</p> <p>The promotion of software applications as important part of effective management of occupational safety and health at work J. Donič, Slovakia</p> <p>Effects of work organization in health and wellness of seniors workers L. Gusmao, C. M. Silva and F. Carnide, Brazil</p> <p>Safety culture development: The gap between industry guidelines and literature, and the differences among industry sectors N. Karanikas, P. Soltani, R. J. de Boer and A. Roelen, The Netherlands</p> <p>Shattering myths: The new face of fatigue management M. Harnett, Canada</p> <p>The effect of occupational safety and health in productivity using structural equation modeling (SEM) M. R. Suryoputro, A. Puji, H. Purnomo and A. D. Sari, Indonesia</p>	

<b>98</b>	<b>Performance and Productivity</b> Co-Chairs: C. Nair, USA, and A. Salmen-Navarro, Venezuela	<b>PEHF</b>
8:00-10:00 - OCEANIC 7	<p><b>Line of sight data capture device for increased productivity &amp; reduced effort in warehouse operations</b>                      C. Nair and R. Martin, USA</p> <p><b>Optimal arrangement of inertial sensors for workload estimation using digital human model based on body surface deformation analysis</b>                      S. Miyajima, N. Miyata, M. Tada, T. Tanaka and M. Mochimaru, Japan</p> <p><b>Application of PSQI and actigraphy on shift workers for sleep quality</b>                      F. -L. Lin, C.-L. Chang, Z.-X. Chen, C.-C. Chen and C. -W. Wang, Taiwan</p> <p><b>State- and trait-condition influences on perceived low back harm from work and home physical activities: Evaluation of the photograph series of daily activities – short electronic version</b>                      J. Doan, D. McCubbing, K. Larson, R. Wade and B. Bailey, Canada</p> <p><b>Ergonomics and increasing marginal returns</b>                      I. Bello and A. Salmen-Navarro, Venezuela</p> <p><b>A study of e-Picture books and traditional picture books on children’s reading attention</b>                      T. - L. Yeh and C. -C. Chen, Taiwan</p> <p><b>Productivity growth analysis of Ethiopian farmers: Malmquist index method</b>                      Y. Tesfay, A. Leta and T. Woldehawariat, Norway</p>	
<b>99</b>	<b>Modelling and Systems in Occupational Ergonomics</b> Co-Chairs: Y. K. Ng, Hong Kong, and A. Schwartz, USA	<b>SOE</b>
8:00-10:00 - EUROPE 6	<p><b>Proposing a conceptual model for examining the influence of individual and work-related factors on work ability</b>                      Y. K. Ng and A. Chan, Hong Kong</p> <p><b>Non-repetitive activity risk assessment</b>                      A. Schwartz and T. Albin, USA</p> <p><b>Elements of diversity in Japanese nursing workplace</b>                      Y. Yamada, M. Mizuno, T. Shimizu, Y. Asano, T. Iwaasa and T. Ebara, Japan</p> <p><b>Research on urban rail driver’s mental workload based on extenics</b>                      L. -P. Li, Z.-G. Liu, H.-Y. Zhu and L. Zhu, China</p> <p><b>Analyzing the impact that lack of supervision has on safety culture and accident rates as a proactive approach to curbing the South African railway industry’s high incident occurrence rate</b>                      S. Tau, South Africa</p> <p><b>The participatory ergonomics in the design of safety systems in complex work systems</b>                      W. G. Baron, Colombia</p>	

<b>101</b>	<b>Ergonomics in Building and Architecture I</b> Co-Chairs: J. Charytonowicz and A. Jaglarz, Poland	SINF
8:00-10:00 - EUROPE 8	<p><b>New concepts in arrangement of living spaces for students</b> A. Jaglarz, Poland</p> <p><b>Re-consumption of materials in architecture</b> J. Charytonowicz and M. Skowronski, Poland</p> <p><b>Le Corbusier in Algeria: The quest of human scale in architecture</b> L. Chebaiki-Adli, Algeria</p> <p><b>Design aspects applied to engineering: technology sustainable development and innovation in the science parks</b> E. Barcellos, G. Botura, Jr., and L. Paschoarelli, Brazil</p>	
<b>102</b>	<b>Ergonomic and Assistive Technology II</b> Chair: M. Ohkura, Japan	EMUSP
8:00-10:00 - EUROPE 2	<p><b>Designing accessible course registration for users with visual impairments</b> T. Joshi and Y. M. Choi, USA</p> <p><b>Augmented reality based social stories training system for promoting the social skills of adolescents with autism</b> C. -H. Chung and C. -H. Chen, Taiwan</p> <p><b>The app game interface design for frozen shoulder rehabilitation</b> C. -E. Chung and C. -H. Chen, Taiwan</p> <p><b>Framework interface components for accessibility issues in e-commerce</b> P. Aquino, Jr., and M. Piazza, Brazil</p> <p><b>Development of interactive system for visually impaired using tactile device</b> K. Harada, K. Usuda, J. Oliveira, J. Moreira and M. Ohkura, Japan</p> <p><b>Usability evaluation of movement support service robot for elderly people</b> S. Kim, M. Moon and Y. Oh, Korea</p> <p><b>The sixth sense: Application of kinesthetic physiological comprehension in the development of serious games supporting health rehabilitation</b> M. A. Lima, E. A. Matos and M. Fernandes, Brazil</p>	
<b>103</b>	<b>Interface Design and Usability Evaluation for Healthcare and Safety</b> Chair: A. Khunlertkit, USA	EMUSP
8:00-10:00 - EUROPE 5	<p><b>The effect of wearing glasses upon postural comfort perception while using multi-tasking electronic devices in sitting position</b> V. Todisco, V. Clemente, R. Califano and M. Vallone, Italy</p> <p><b>Preliminary study on the evaluation of musculoskeletal risk of static-cycling instructors using infrared thermography</b> B. Flores, O. Susarrey, A. Yoguez, C. Gutiérrez and J. Jiménez, Mexico</p> <p><b>The effect of different protection level on pilots' respiratory and cardiovascular system</b> H. Zhao, H. Gu, X.-P. Liu, L. Ding and H. Qiao, China</p> <p><b>Requirements' elicitation for a tangible interface-based educational application for visually impaired children</b> A. Alhussayen, R. Jafri and A. Benabid, Saudi Arabia</p> <p><b>Recognizing emotional states using physiological devices</b> A. M. Khan, Germany</p>	

<p><b>104</b></p>	<p><b>Analysis of Individual and Team Sports II</b> Chair: C. Dallat, Australia</p>	<p>SOR</p>
<p>8:00-10:00 - EUROPE 7</p>	<p>Effect of the functional dynamic warm-up on speed, power and core muscle endurance for adolescent T. Liao, Y. Yu and Y. Meng, China</p> <p>An enhanced 2-lead ECG algorithm and system implementation for the sports and outdoor recreation Y. Fu and J. Liu, China</p> <p>Empirical analysis of Japanese football games using structural equation modeling M. Miyamoto, Y. Kaneki and Y. Misumi, Japan</p> <p>Team building program for enhancement of collective efficacy: In the case of a university baseball team in Japan Y. Hochi, Y. Yamada and M. Mizuno, Japan</p> <p>Analysis of an Olympic scale of a recurve bow riser on the basis of Malaysian under 15 and under 17 archers F. Fauzi, Z. Taha, Z. Ghazalli, J. Parlaungan, K. Kadirgama, H. H. Johari and D. Mohamed, Malaysia</p> <p>Ergonomics and user centered performance in IRC class racing yachts S. Borvali and C. Özcan, Turkey</p>	
<p><b>105</b></p>	<p><b>Panel Discussion - Challenges for Rapid Operationalization of New Computing Technologies for Teams Dealing with Complex Dynamic Environments</b> Co-Chairs: N. Berry, B. Prugh and L. Garciga, USA</p>	<p>SYSI</p>
<p>8:00-10:00 - EUROPE 1</p>	<p>Panel: Lessons learned from operationalization of software application for dynamic environments N. Berry, W. Prugh and L. Garciga, USA</p> <p>Design thinking - the programmatics and agile techniques for continuous operationalization of new computing technologies W. Rhodes, USA</p> <p>Lessons from the edge: Customer focused innovation at the US Army Rapid Equipping Force P. Newell, USA</p> <p>Crossing the valley of death: User-centered design and technology transfer R. Bush, USA</p>	
<p><b>106</b></p>	<p><b>Organizational and Team Learning</b> Chair: T. Barath, Hungary</p>	<p>TELS</p>
<p>8:00-10:00 - EUROPE 3</p>	<p>Effective use of teams and teamwork in online learning R. Ekblaw, USA</p> <p>Transferring tacit knowledge and competence in process control A. -L. Osvalder and A. Colmsjo, Sweden</p> <p>Approachability as a prerequisite of student reflection R. Karnita and A. Woodcock, Indonesia and United Kingdom.</p> <p>Nurses students' perception about learning online using social networks A. C. Filho, L. Castro, R. Moraes and A. Gomes, Brazil</p> <p>Threat attention bias, emotional regulation and success in selection for special operations C. Morgan, USA</p> <p>Study English: Traditional learning or e-learning? E. Ayuandita and M. M. Ali, Indonesia</p>	

<p><b>107</b></p>	<p><b>Human-Agent Teaming</b> Co-Chairs: J. Chen and G. Calhoun, USA</p>	<p>HFRUS</p>
<p>8:00-10:00 - OCEANIC 2</p>	<p><b>Operator-autonomy teaming interfaces to support multi-unmanned vehicle missions</b> G. Calhoun, H. Ruff, K. Behymer and E. Mersch, USA</p> <p><b>Shaping trust through transparent design: Theoretical and experimental guidelines</b> J. Lyons, G. Sadler, K. Koltai, H. Battiste, N. Ho, D. Smith, W. Johnson and R. Shively, USA</p> <p><b>A framework for human-agent social systems: The role of non-technical factors in operation success</b> M. Lohani, C. Stokes, N. Dashan, M. McCoy, C. Bailey and S. Rivers, USA</p> <p><b>Insights into human-agent teaming: Intelligent agent transparency and uncertainty</b> K. Stowers, N. Kasdaglis, M. Rupp, J. Chen, D. Barber and M. Barnes, USA</p> <p><b>Displaying information to support transparency for autonomous platforms</b> A. Selkowitz, C. Larios, S. Lakhmani and J. Chen, USA</p> <p><b>The relevance of theory to human robot teaming research and development</b> G. Teo, R. Wohleber, J. Lin and L. Reinerman-Jones, USA</p> <p><b>Human factors and robotic cars</b> T. Malik and A. Nasir, Pakistan</p>	
<p><b>108</b></p>	<p><b>Cybersecurity Behavior</b> Co-Chairs: L. Reinerman-Jones and J. Youzwak, USA</p>	<p>CYBER</p>
<p>8:00-10:00 - OCEANIC 4</p>	<p><b>Cyber-security: Role of deception in cyber-attack detection</b> P. Aggarwal, C. Gonzalez and V. Dutt, India/USA</p> <p><b>Role of intrusion-detection systems in cyber-attack detection</b> V. Dutt, F. Moisan and C. Gonzalez, India/USA</p> <p><b>Implicit response metrics for insider threat: prospects, methods, and challenges</b> G. Matthews and L. Reinerman-Jones, USA</p> <p><b>Profiling cybersecurity competition participants: Self-efficacy, decision-making and interests predict effectiveness of competitions as a recruitment tool</b> C. Wee and M. Bashir, USA</p> <p><b>Integrating cultural factors into human factors framework for cyber attackers</b> D. Henshel, C. Sample, M. Cains and B. Hoffman, USA</p> <p><b>Cognitive performance impact of augmented reality for network operations tasks</b> S. Beitzel, J. Dykstra, S. Huver, M. Kaplan, M. Loushine and J. Youzwak, USA</p> <p><b>Fraud risk assessment: A tale of the possible corporate executive fraud and the perceived cybersecurity</b> G. A. Rubasundram, Malaysia</p>	
<p><b>109</b></p>	<p><b>Multisensory Design and Mobility for Special Needs</b> Co-Chairs: C. Ryhl, Denmark, and J. Herssens, Belgium</p>	<p>DI</p>
<p>8:00-10:00 - OCEANIC 6</p>	<p><b>A design toolkit for visually impaired people on travelling experience</b> J. Guan and C. Choy, China</p> <p><b>Sensory - Friendly grocery store for the visually impaired shoppers</b> D. Khattab, Canada</p> <p><b>Can you hear architecture: Inclusive design and acoustics in the Nordic region</b> C. Ryhl, Denmark</p> <p><b>An experimental study on fused-deposition-modeling technology as an alternative method for low-cost braille printing</b> C. Loconsole, D. Leonardi, M. Bergamasco and A. Frisoli, Italy</p> <p><b>Using a mobile application to help visually impaired individuals explore the outdoors</b> S. Long, N. Karpinsky, H. Döner and J. Still, USA</p> <p><b>Usability of transit bus equipment for access and securement for individuals with mobility impairment</b> B. Perez, L. Kocher, M. Nemade, V. Paquet and J. Lenker, USA</p>	

110	<b>Vehicle Automation I</b> Chair: N. Stanton, UK	RR
8:00-10:00 - OCEANIC 8	<p><b>How traffic conditions affect the driver's internal state? A multi-level approach for improving advanced driver assistance systems</b>                  H. Loeches De La Fuente, C. Jallais, A. Fort, V. Etienne, M. De Weser, J. Ambeck and C. Berthelon, France</p> <p><b>A countdown to manual driving: How do drivers get "back-in-the-loop"?</b>                  A. Larsson, Sweden</p> <p><b>Assessing truck drivers' and fleet managers' opinions toward highly automated driving</b>                  N. Richardson, F. Doubek, K. Kuhn and A. Stumpf, Germany</p> <p><b>Will there be a new communication need when introducing automated vehicles to the urban context?</b>                  V. M. Lundgren, A. Habibović, J. Andersson, T. Lagström, M. Nilsson, A. Sirkka, J. Fagerlön, R. Fredriksson, C. Edgren, S. Krupenia and D. Saluäär, Sweden</p> <p><b>Command-based driving for tactical control of highly automated vehicles</b>                  A. Habibovic, J. Andersson, J. Nilsson, M. Nilsson and C. Edgren, Sweden</p> <p><b>Driving simulator experiment on ride comfort improvement and low back pain prevention of autonomous car occupants</b>                  J. Tatsuno and S. Maeda, Japan</p>	
10:00 - 10:30 Refreshments will be provided in Atlantic Hall		
111	<b>Linking Cognitive Workload to Performance During Human-Computer Interactions</b> Co- Chairs: P. Mosaly, E. Comitz and L. Mazur, USA	HSSE
10:30-12:30 - AUSTRALIA 2	<p><b>Classification of EEG features for prediction of working memory load</b>                  A. Abrantes, E. Comitz, P. Mosaly and L. Mazur, USA</p> <p><b>Are behavioral measures useful for detecting cognitive workload during human-computer interaction?</b>                  S. Elkin-Frankston, B. Bracken, S. Irvin and M. Jenkins, USA</p> <p><b>Alpha/theta power during cognitive tasks in the EMR</b>                  E. Comitz, P. R. Mosaly, L. Mazur, L. Marks and B. Chera, USA</p> <p><b>Workload model for situation awareness</b>                  R. Steinberg, A. Diggs and D. Donohoo, USA</p> <p><b>Study on the workforce planning of metro dispatcher based on workload</b>                  Y. Liu and W. Fang, China</p> <p><b>Discover and resolve the real causes of duplicate medical record</b>                  A. Khunlertkit and L. Paine, USA</p>	
112	<b>Affective Value Creation / Kawaii I</b> Chair: M. Ohkura, Japan	APD
10:30-12:30 - ASIA 1	<p><b>A soft-computing approach for quantification of personal perceptions</b>                  L. Diago, J. Romero, J. Shinoda, H. Abe and I. Hagiwara, Japan</p> <p><b>The effect of immersive head mounted display on a brain computer interface game</b>                  Y. Iida, D. Tsutsumi, S. Saeki, Y. Ootsuka, T. Hashimoto and R. Horie, Japan</p> <p><b>Women's negotiation support system - as affected by personal appearance vs use of language</b>                  K. Suzuki, H. Tamada, R. Doizaki, Y. Hirahara and M. Sakamoto, Japan</p> <p><b>Evaluation of feeling of excitement caused by auditory stimulus in driving simulator using biosignals</b>                  K. Ito, Y. Harada, T. Tani, Y. Hasegawa, H. Nakatsuji, Y. Tate, H. Seto, T. Aikawa, N. Nakayama and M. Ohkura, Japan</p> <p><b>Effects of impression evaluations on structure of the living rooms in narrow site houses</b>                  M. Ohukura, W. Morishita, Y. Aoyagi and Y. Watanabe, Japan</p> <p><b>Affective evaluation for material perception of bead-coated resin surfaces using visual and tactile sensations: Preparation of adjective pairs to clarify the color effect</b>                  W. Morishita, R. Miyazaki, M. Ohkura, M. Takahashi, H. Sakurai, K. Yarimizu and A. Nakahara, Japan</p> <p><b>Three layer model of aesthetics</b>                  M. Kurosu and A. Hashizume, Japan</p>	

<b>113</b>	<b>Human-Machine Interactions and Tools</b> Co-Chairs: U. Asgher, Pakistan, and S. Nazir, Norway	CCDM
10:30-12:30 - ASIA 2	<p><b>Culture in the cockpit: Implications for CRM training</b> S. Cookson, Japan</p> <p><b>Incorporating user feedback for the design and development of cross-cultural decision-making tools</b> L. Stern, B. Prue, P. Hurley and G. Catto, USA</p> <p><b>Understanding crowd disasters: A socio-technical and cross-cultural analysis</b> K. Cichomska, M. Robinson and M. Davis, UK</p> <p><b>Irrational behavior in adaptation: Difference of adaptation process to comfort and discomfort stimulus when presented all together or intermittently</b> A. Murata and T. Nakamura, Japan</p> <p><b>Automated libraries</b> S. Tariq, Pakistan</p> <p><b>Human cognitive limits are associated with performance deterioration on online platforms</b> E. Ferrara and K. Lerman, USA</p>	
<b>114</b>	<b>Physiological Monitoring and Interaction</b> Chair: K. Hale, USA	CN
10:30-12:30 - ASIA 3	<p><b>Test-retest reliability of EEG and eye tracking metrics as indicators of variations in user state – an analysis on a group and an individual level</b> J. Schwarz and S. Fuchs, Germany</p> <p><b>Association of blue light-induced oxidative stress with work performance – EEG study</b> H. Cho, H. Jang, H.-G. Kim and S. Jun, South Korea</p> <p><b>Assessments of visual fatigue on illumination-characteristics by using EEG</b> S. -Y. Cheng, Taiwan</p> <p><b>Transcranial direct current stimulation (tDCS) versus caffeine to sustain wakefulness at night when dosing at start-of-shift</b> L. McIntire, R. A. McKinley, J. Nelson and C. Goodyear, USA</p> <p><b>The effects of transcranial direct current stimulation (tDCS) on training during a complex procedural task</b> R. A. McKinley, L. McIntire, J. Nelson, J. Nelson and C. Goodyear, USA</p> <p><b>Eliciting sustained mental effort using the Toulouse N-back Task: Prefrontal cortex and pupillary responses</b> M. Causse, V. Peysakhovich and K. Mandrick, France</p> <p><b>A study on the relationships between drivers' working memory tasks and brain signals</b> S. Chae, South Korea</p>	
<b>115</b>	<b>User Research in Design II</b> Chair: E. Attaianese, Italy	ED
10:30-12:30 - ASIA 4	<p><b>Evaluating interfaces and user's profiles</b> L. M. Colin and A. R. Chavez, Mexico</p> <p><b>Analysis of glasses wearing comfortability based on 3D head shape features</b> Z. Li, X. Zhang, J. Zhang, L. Jiang and G. Yu, China</p> <p><b>Developing of a system for measuring and evaluating the hand stress in relation to the strain index</b> P. Gust, A. Ünlü and M. Hoppe, Germany</p> <p><b>User's capabilities and limitations identification in design process</b> A. R. Chavez and L. M. Colin, Mexico</p> <p><b>Increasing sustainability by improving full use of public space: Human centered design for easy-to-walk built environment</b> E. Attaianese, Italy</p> <p><b>Ocular movement characteristics to LED lights with high luminous intensity</b> A. Murata, T. Takamoto and M. Moriwaka, Japan</p> <p><b>Working with the elderly - issues regarding registering their experience and knowledge</b> R. Mendonca and A. Oliveira, Brazil</p>	



<b>116</b>	<b>Human Factors and Ergonomics in Healthcare Safety</b> Chair: T. Bagian, USA	HC
10:30-12:30 - ASIA 5	<p><b>Socio-technical evaluation of preventable harm in the military healthcare system</b> R. Bateman and K. Schweitzer, USA</p> <p><b>Engaging and effective staff training to improve patient safety and satisfaction</b> G. Alexander and P. Baker, USA</p> <p><b>Methodology of care humanitude in promoting self-care in dependent people: An integrative review</b> R. Melo, D. Fernandes, J. Albuquerque and M. Duarte, Portugal</p> <p><b>Application of user experience map and safety map to design healthcare service</b> J. Li and L. Liu, China</p> <p><b>An assessment on the level of knowledge regarding biosafety measures in the academic environment</b> B. Moraes, A. Moraes, B. Moraes and V. Ramos, Brazil</p> <p><b>Methods to characterize variability in the operating room during robotic surgery to enhance patient safety</b> A. Composto, L. Reisner, A. Pandya, D. Edelman, K. Jacobs and T. Bagian, USA</p> <p><b>Incentives for the acceptance of mobility equipment by elderly people on basis of the Kano Model</b> C. Brandl, P. Rasche, C. Bröhl, S. Theis, M. Wille, C. M. Schlick and A. Mertens, Germany</p>	
<b>117</b>	<b>Safety Management and Human Factors IV</b> Co-Chairs: R. Goossens, The Netherlands, and L. Sims, USA	SMHF
10:30-12:30 - OCEANIC 3	<p><b>Occupational health and safety practices and the regulatory regime: Evidence from the infantile oil fields of Ghana</b> O. Anku-Tsedee, Ghana</p> <p><b>Required improvements in hazardous protective suits</b> A. Prieto-Sanchez, F. Aguilar-Fernandez, M. T. Lanza-Guerricagoitia, J. J. Gimenez-Mediavilla, F. Prados-Roa and S. Esteban-Pastor, Spain</p> <p><b>Determining empirical donning and doffing times for complex combinations of personal protective equipment (PPE)</b> L. Sims, G. Davis, R. Seseck, S. Gallagher, M. Schall and P. Bhardwaj, USA</p> <p><b>Safety and usability of medical devices in the patient journey</b> R. Goossens, M. Melles and A. Albayrak, The Netherlands</p> <p><b>Using concepts of semantic web to enrich information fusion and situational awareness</b> V. Pereira, Jr., M. Sanches, L. Botega, X. Coneglian, N. Oliveira and R. Araújo, Brazil</p>	
<b>118</b>	<b>Physical Ergonomics: Muscles, Fatigue and Comfort</b> Co-Chairs: X. Hu and X. Wang, China	PEHF
10:30-12:30 - OCEANIC 5	<p><b>Estimation method of muscle fatigue and recovery progress using a muscular fatigue model</b> I. Nishida, K. Sata, M. Maeda, T. Kawano and K. Shirase, Japan</p> <p><b>The effect of back-carrying load and fatigue on gait characteristics at heel contact</b> X. Hu and X. Qu, China</p> <p><b>The impact of man-seat interface on long-time-sitting fatigue and comfort</b> X. Wang, H. Liu, X. Li, L. Ding and W. Bu, P.R. China</p> <p><b>A study to determine the recommended font size and style on smartphone's text to alleviate visual fatigue and avoid text neck</b> J. M. Yosures, J. L. M. Lansangan and P. C. Nery, Philippines</p> <p><b>Changes in myoelectric manifestation of muscle fatigue in repetitive work performed with and without pause</b> F. Draicchio, A. Silvetti, F. De Mitri, F. Tuccino, T. Varrecchia and A. Ranavolo, Italy</p> <p><b>Low back pain in workers of power generation industry and its relationship with socioeconomic status and working day lost</b> C. Moscoso and S. Arias, Guatemala</p>	

<p><b>119</b></p>	<p><b>Road and Rail: Logistics and Passengers</b> Co-Chairs: W. Zhang and J. Pritchard, UK</p>	<p>RR</p>
<p>10:30-12:30 - OCEANIC 7</p>	<p><b>Child restraint seat installation errors and a simple mechanical device to mitigate misuse</b> X. Chen and W. Altenhof, Canada</p> <p><b>Experimentation system for determining bus routes for customers of supermarket chains</b> A. Pohoski, L. Woszalka, I. Pozniak-Koszalka and A. Kasprzak, Poland/Canada</p> <p><b>Carbon nanotube modified asphalt binders for sustainable roadways</b> R. Tarefder and A. Zaman, USA</p> <p><b>Sensors oriented approach to prevent hyperthermia for children in a car</b> M. Abulkhair, L. Mulla, A. Aldahiri, H. Alkhatibi, H. Alonezi and S. Razzaq, Saudi Arabia</p>	
<p><b>120</b></p>	<p><b>Accidents and Pedestrian Modeling</b> Chair: K. Plant, UK</p>	<p>RR</p>
<p>10:30-12:30 - EUROPE 6</p>	<p><b>Reducing reversing vehicle incidents in Australian fleet settings: A case study</b> D. Wishart, K. Somoray and B. Rowland, Australia</p> <p><b>The relationship between traffic rule violations and accident involvement records of drivers</b> M. Shawky, Y. Al-Badi, I. Sahnoun and H. Al-Harhi, UAE</p> <p><b>Acquisition system improvement and results analysis in small overlap and oblique tests</b> N. Parera and A. Fornells, Spain</p> <p><b>Mathematical model of pedestrian timing accommodation into signal coordination</b> A. Gholami, USA</p> <p><b>Identifying recommended roadway lighting levels using crash history: Case study of Quebec's highways and Arthabaska roads</b> L. A. Jimenez, Canada</p> <p><b>Development of a mobile application to substitute vehicle accident reports</b> A. Gonzalez, I. Cruzado and M. Rodriguez, Puerto Rico</p>	
<p><b>121</b></p>	<p><b>Ergonomics Modeling for Industry</b> Chair: T. Glohr, Germany</p>	<p>EMUSP</p>
<p>10:30-12:30 - EUROPE 4</p>	<p><b>Interaction of haptics, acoustics, and optics in the perception of rotatory control devices</b> T. Glohr, S. Schynoll, A. Zimmermann and T. Maier, Germany</p> <p><b>Conducting a prospective review for enhanced interface features for unmanned ground vehicle operation</b> T. Garrison, L. Jensen, L. Cagle, J. McGinley, D. Carruth, C. Bethel, C. Goodin and P. Durst, USA</p> <p><b>Physiological responses related to visual impressions of a product: Evaluating automobile interior design</b> H. Muto, T. Yamamoto, N. Kamiya and M. Nakanishi, Japan</p> <p><b>A method to evaluate consumer desire for continued product usage: Incorporation of the method in the automobile design process</b> T. Yura, T. Yamamoto, N. Kamiya and M. Nakanishi, Japan</p> <p><b>Design requirements to reduce discomfort in window viewing: Study on increasing degrees of freedom of car-body shape</b> K. Fujita and M. Nakanishi, Japan</p> <p><b>Impact of an augmented reality system on learning for army military decision-making process (MDMP) course</b> C. -C. Mao, C. Chen and C. Sun, Taiwan</p>	

<p><b>122</b></p>	<p><b>Reducing Human Error Through Situation Awareness, Training, and Simulations</b> Chair: M. Legatt, USA</p>	<p>ENERGY</p>
<p>10:30-12:30 - EUROPE 8</p>	<p>Reducing human error: Situation awareness and physiology M. Legatt, USA</p> <p>Situation awareness in the world of big data: Resilience through better human-computer interactions M. Legatt and P. Fechtelkötter, USA</p> <p>Toward a descriptive measure of situation awareness in petrochemical refining T. Grigoleit, H. Silva, M. Burrell and D. Chiappe, USA</p> <p>Full scale evaluation of how task-based overview displays impact operator and crew workload and situation awareness when operating in emergency procedure space Z. Spielman, R. Hill, K. Le Blanc, B. Rice, G. Bower, J. Joe and D. Powers, USA</p> <p>Identifying macro-cognitive function failures from accident reports: A case study P. Liu, X. Lyu, Y. Qiu, J. Hu, J. Tong and Z. Li, China</p> <p>A literature review on human reliability analysis techniques applied for probabilistic risk assessment in the nuclear industry N. Dsouza and L. Lu, Canada</p>	
<p><b>123</b></p>	<p><b>Systems Thinking in Sport and Outdoor Recreation</b> Chair: P. Salmon, Australia</p>	<p>SOR</p>
<p>10:30-12:30 - EUROPE 2</p>	<p>From reductionism to systems thinking: A complementary and alternative conceptual approach for better understanding the development and prevention of sports injury A. Hulme, P. Salmon and C. Finch, Australia</p> <p>Risky systems versus risky components: A new approach for identifying risks across outdoor recreation systems C. Dallat, N. Goode and P. Salmon, Australia</p> <p>Simply complex: Are led outdoor activities complex sociotechnical systems? T. Carden and P. Salmon, Australia</p> <p>Uncovering causal webs: A systems analysis of led outdoor activity injury data P. Salmon, N. Goode and C. Finch, Australia</p> <p>Should they stay or should they go? The factors influencing the identification and management of concussion in Australian rules football K. Dawson, P. Salmon, G. Read, T. Neville and N. Goode, Australia</p>	

<p><b>125</b></p>	<p><b>The Future of Human Factors</b> Chair: A. B. Proaps, USA</p>	<p><b>SYSI</b></p>
<p>10:30-12:30- EUROPE 7</p>	<p><b>Advancing human factors through multi-disciplinary collaboration</b> A. Proaps, USA</p> <p><b>How the science of human factors can help to shape public policy</b> M. Liechty, USA</p> <p><b>Tearing down the silos: Envisioning an inclusive pedagogical future for human factors</b> J. Bliss, USA</p> <p><b>Perspectives on the future of human factors from the next generation of HF professionals</b> E. Chancey, USA</p> <p><b>Toward closing the gap between HF/E and UX</b> R. Kennedy, USA</p> <p><b>Human factors in healthcare: Current issues and future states</b> B. Anderson-Montoya, USA</p>	
<p><b>126</b></p>	<p><b>Ergonomic and Assistive Technology I</b> Chair: G. C. Bonfim, Brazil</p>	<p><b>EMUSP</b></p>
<p>10:30-12:30 - EUROPE 1</p>	<p><b>Palmar pressure and perception of discomfort in the use of axillary crutches</b> G. C. Bonfim, D. Silva, E. Neves, J. Plácido, A. Mantova, F. Medola and L. Paschoarelli, Brazil</p> <p><b>Design and development of a low-cost prosthesis directed to the activity with a gasoline brush cutter: A case study</b> D. Ferrari, G. C. Bonfim, R. Oliveira, L. Paschoarelli and J. Santos, Brazil</p> <p><b>Aspects of the national catalogue of assistive technology products of the Ministry of Science, Technology and Innovation in Brazil: A survey on the degree of knowledge of the catalog</b> R. Scatolim, J. Santos, P. da Cruz Landim, S. Fermينو and D. Cardozo, Brazil</p> <p><b>Ergonomic analysis used as the projectual methodology in the assistive technology</b> T. Cristo and S. Brondani, Brazil</p> <p><b>Application of semantic differential in assistive technology: Study about product personality on axillary crutches</b> J. Lanutti, L. Mattos, A. Alves, F. Medola and L. Paschoarelli, Brazil</p> <p><b>Muscular activity and exertion perception in the use of axillary crutches</b> G. Bertolaccini, M. Vasquez, L. Azevedo, L. Faganello, F. Medola and L. Paschoarelli, Brazil</p> <p><b>Development of a device for the aid in locomotion child with physical disabilities</b> M. Catapan, R. Venancio and M. L. Okimoto, Brazil</p>	
<p><b>127</b></p>	<p><b>Training Applications in Military and Operational Environments</b> Chair: V. Finomore, USA</p>	<p><b>TELS</b></p>
<p>10:30-12:30 - EUROPE 3</p>	<p><b>Interpretative phenomenological analysis for military tactics instruction</b> M. Boyce, D. Cruz and R. Sottolare, USA</p> <p><b>Exploring the impact of simulator sickness on the virtual world experience</b> C. Maraj, K. Badillo-Urquiola, S. Martinez, J. Stevens and D. Maxwell, USA</p> <p><b>Behavior cue detection training: Understanding the impact of simulator sickness on performance</b> C. Maraj, K. Badillo-Urquiola, S. Lackey and I. Hudson, USA</p> <p><b>Inter-organizational simulation as a training opportunity for maritime search and rescue (SAR) missions – the first implemented integrated solution</b> T. Lübcke, N. Steigenberger, C. Bornhorst and P. Roßner, Germany</p> <p><b>Military police use of force skill fade</b> F. Ruscito and K. Rankin, Canada</p> <p><b>Fidelity requirements for effective live-virtual-constructive training of Navy F/A-18 Pilots</b> S. Sherwood, K. Neville, J. Mooney, K. Merle, C. Rarick, M. Walwanis and A. Bolton, USA</p>	

<b>128</b>	<b>From Theory to Application: UAV and Human-Robot Collaboration</b> Co-Chairs: P. Stütz, Germany, and A. W. Evans, USA	<b>HFRUS</b>
10:30-12:30 - OCEANIC 2	Classification and prediction of human behaviors by a mobile robot D. Benjamin and D. Lyons, USA The future of human robot teams in the Army: Modeling human-system dialogue towards greater team collaboration A. Evans, M. Marge, E. Stump, G. Warnell, J. Conroy, D. Summers-Stay and D. Baran, USA Human-autonomy teaming using flexible human performance models: An initial pilot study C. Shannon, D. Horney, K. Jackson and J. How, USA Self-scaling human agent cooperation concept for joint fighter-UCAV operations F. Reich, F. Heilemann, D. Mund and A. Schulte, Germany Experimental analysis of behavioral workload indicators to facilitate adaptive automation for fighter-UCAV interoperability D. Mund, F. Heilemann, F. Reich, D. Donath and A. Schulte, Germany Balancing perception with attention in autonomous systems operations T. Kelley, USA Characterization with EEG and eye tracking of the impact of time-on-task on a UAV operator A. Bovo, R. Roy, T. Gateau, F. Dehais and C. P. Carvalho Chanel, France	
<b>129</b>	<b>Inclusive and Universal Design in Clothing, Footwear and Accessories</b> Co-Chairs: M. Carvalho and P. Arezes, Portugal	<b>DI</b>
10:30-12:30 - OCEANIC 4	FYT jeans - engineered for comfort - from inclusive design to design for all M. Carvalho and E. Edelman, Portugal The importance of ergonomic design in the inclusion of women with mastectomies with lymphedema M. Grave, M. Carvalho and F. Ferreira, Portugal WearAbility G. Montagna and C. Carvalho, Portugal Fashion design and life experience: Reduced mobility in ageing C. Carvalho, G. Montagna and C. Morais, Portugal Open inclusive fashion: New insights for a co-design platform A. Soares, E. Costa, S. Mazzaroto, M. Carvalho, D. Allen, K. Wachowski, E. Gehl, V. Barreau, D. Nguembock and F. Ferreira, Portugal/UK/Germany/France Study of the ergonomically comfort conditions with impact in the elderly clothing design A. Caldas and M. Carvalho, Portugal	
<b>130</b>	<b>Gender and Leadership</b> Chair: M. Kitada, Sweden	<b>HFML</b>
10:30-12:30 - OCEANIC 6	Is the sky the limit?: Leadership and socio-economic development of women in the maritime sector in Eastern and Southern Africa M. Bhirugnath-Bhookhun and M. Kitada, Mauritius Globalization strategies and higher education. A Dutch - Romanian perspective F. Popescu, The Netherlands New skills for entrepreneurial researchers M. Leloux, F. Popescu and A. Koops, The Netherlands Female captains and their leadership: human factors in the shipping industry M. Kitada, Sweden The learning organization in small government unit: Case study of Center of Academic Services, Srinakharinwirot University, Thailand U. Klentien and W. Kamnungwut, Thailand The strategy of user experience: A journey from design list checking to Chief Executive Officer M. Hubler, USA Building a magnetic culture into management and leadership K. Sheridan, USA	

<b>131</b>	<b>Training and Learning Applications</b> Co-Chairs: M. Berlingo and A. Subramanian, USA	TELS
10:30-12:30 - OCEANIC 8	<p><b>Transient visualizations hinder learning when controlling moderating variables: Critical review and experimental example</b>                  J. Castro-Alonso, P. Ayres and F. Paas, Chile/Australia/The Netherlands</p> <p><b>ICT classroom LMSs: Examining the various components affecting the acceptance of college students' in the use of blackboard systems</b>                  S. Alotaibi, Saudi Arabia</p> <p><b>Intelligence training research exercise 15-1</b>                  M. Berlingo, L. Tripp and J. Wilson, USA</p> <p><b>Visual cue streams for multimodal dialogue interaction</b>                  D. Koryzis, C. Samaras, E. Makri, V. Svolopoulos and D. Spiliotopoulos, Greece</p> <p><b>Virtual reality museum of consumer technologies</b>                  A. Subramanian, J. Barnes, N. Vemulapalli and S. Chhawri, USA</p> <p><b>Programmed apprenticeship</b>                  R. Ford and N. Kreischer, USA</p> <p><b>Peer-assisted learning versus peer-assisted socializing: A search for effective institutional practices to enhance first-year student success</b>                  E. Byl, K. Struyven, W. Jacquet and B. Abelshausen, Belgium</p>	
<b>132</b>	<b>Panel: Modeling Sociocultural Factors in Conflict and Stability</b> Chair: S. Schatz, USA	CCDM
10:30-12:30 - OCEANIC 1	<p><b>Cultural influences on cognitive biases in judgment and decision making: On the need for new theory and models for accidents and safety</b>                  A. Murata, Japan</p> <p><b>Gaining insight by applying geographical modeling</b>                  E. Cakit and W. Karwowski, Turkey/USA</p> <p><b>Methods to characterize and manage uncertainty for socio-cultural applications</b>                  P. Benjamin, K. Vadakkeveedu and S. Ramachandra, USA</p> <p><b>Collecting data and semantic content via mobile devices</b>                  A. Caglayan and L. Cassani, USA</p> <p><b>Deciphering the "Emic" perspective in data in order to assess threat</b>                  L. Fenstermacher and L. Kuznar, USA</p> <p><b>Using the social framework model of trust to better understand trust in government</b>                  W. Kulzy, R. Fricker, Jr., and D. Combs, USA</p>	
Lunch Break (12:30-13:30) - Enjoy lunch at the restaurant of your choice		
<b>133</b>	<b>Data-Driven Services in Omni-Channel Customer Relations</b> Co-Chairs: F. Bodendorf and C. Zagel, Germany	HSSE
13:30-15:30 - AUSTRALIA 2	<p><b>Using smartphones for information retrieval in omni-channel scenarios – assessing the effectiveness of technological triggers</b>                  C. Zagel, A. Niels and F. Bodendorf, Germany</p> <p><b>Computer-related attributions: An intercultural comparison</b>                  M. Janneck, J. Xiao and A. Niels, Germany</p> <p><b>The impact of causal attributions on the user experience of error messages</b>                  A. Niels, T. Lesser and T. Krüger, Germany</p> <p><b>How data driven customer experience influences digital maturity</b>                  A. M. Walorska and A. Braun, Germany</p> <p><b>Challenges for UX with privacy and personalization</b>                  A. M. Walorska, Germany</p>	

<p><b>134</b></p>	<p><b>Design of Human Interface and Affective Communication I</b> Chair: K. Morimoto, Japan</p>	<p>APD</p>
<p>13:30-15:30 - ASIA 1</p>	<p>Questionnaire survey result of the use of communication robots for recreational activities at nursing homes T. Doi, N. Kuwahara and K. Morimoto, Japan</p> <p>Consideration of appropriate photo image to the conversation of the elderly and youth by using facial expression analysis M. Iwamoto, N. Kuwahara and K. Morimoto, Japan</p> <p>Representation of fundamental movements and pauses for archiving traditional skills H. Nomiya and T. Hochin, Japan</p> <p>Development of the micro-silk through the breeding of transgenic silkworm K. B. Kim, M. Kim and K. M. Choi, Korea</p> <p>Study on design elements of cardinal direction based on cognitive analysis M. Kim, K. Morimoto and N. Kuwahara, Japan</p> <p>Perceptions on clothing by elderly females S. Kitaguchi, M. Matsumoto, T. Sato and K. Kajiwaru, Japan</p> <p>Interactive system supporting children pleasurable learning W. Almkadi and L. Stephane, USA</p>	
<p><b>135</b></p>	<p><b>Panel: Loss of Control in Flight (LOC-I)</b> Chair: M. Bromfield, UK</p>	<p>AVI</p>
<p>13:30-15:30 - ASIA 2</p>	<p>Loss of control in flight (LOC-I) M. Bromfield, UK</p> <p>Aircraft controllability and primary flight displays K. Lande, Norway</p> <p>Loss-of-control... who had control in the first place? A. Blackie, UK</p> <p>Confusion and time in loss of control accidents S. Landry, USA</p> <p>Changes to pilot training to prevent LOC-I accidents K. Abbott, USA</p> <p>The issue of tangibility G. Boy, USA</p>	
<p><b>136</b></p>	<p><b>Human Factors and Simulation</b> Chair: D. Cassenti, USA</p>	<p>HFSIM</p>
<p>13:30-15:30 - ASIA 3</p>	<p>Climate variability, opposition group formation and conflict onset Z. Yang and P. Zagorowski, USA</p> <p>Towards a comprehensive simulator for public speaking anxiety treatment E. Soyler, C. Gunaratne and I. Akbas, USA</p> <p>The research on VR-based of technology generating equipment and interaction equipment Y. Liu and F. Wang, China</p> <p>Assessing hazard identification in surface stone mines in a virtual environment J. Bellanca, T. Orr, W. Helfrich, B. Macdonald, J. Navoyski and B. Eiter, USA</p> <p>The human factor in production planning control - avoiding the lead time syndrome by consideration of cognitive biases in it system design J. Bendul, Germany</p> <p>HUMANIA: A social simulation experience based the concept of 'Attachment Bond' N. González-Romero and N. Obregón, Colombia</p>	

<b>137</b>	<b>User Research in Design III</b> Chair: L. M. Saenz, Colombia	<b>ED</b>
13:30-15:30 - ASIA 5	<p><b>Design ideation and prototyping for interactive footwear: A report on the foot-wearables design workshop</b> M. Swarts, USA</p> <p><b>The physical element affecting students' concentration in library</b> H. Dang and W. Chen, Taiwan</p> <p><b>Ergonomic/human factors in the design process. Methodological tool for characterization of user</b> G. Sevilla and L. M. Saenz, Colombia</p> <p><b>Preliminary interaction design of drawing support system based on memory capacity and operation pattern</b> S. Tano, Japan</p> <p><b>Improving medication adherence for the elderly in China: A user study in design</b> Q. Zhou, L. Liu, Q. Zheng and J. Li, China</p> <p><b>Study of artistic elements and ergonomic factors in caps called "crown and diadem"</b> M. Sohrabi Nasirabadi, Iran</p> <p><b>Ergonomic analysis of a food and nutrition service in a hospital and maternity in Parana-Brazil: An evaluation of macro-ergonomics aspects</b> R. Bitencourt, R. De Souza and R. Riesemberg, Brazil</p>	
<b>138</b>	<b>Human Factors and Ergonomics in Medical Devices</b> Co-Chairs: D. Yu, USA, and P. K. Ray, India	<b>HC</b>
13:30-15:30 - OCEANIC 1	<p><b>Improving the user experience of medical devices with comparative usability testing</b> A Tosine and H. Al-Jaber, Canada</p> <p><b>&amp;You: Design of a sensor-based wearable device for use in cognitive behavioral therapy</b> A. McEuen, J. Proffitt, J. D. Camba and E. S. Kwon, USA</p> <p><b>Framework proposal including HFE in product development process: A suitable approach for the Brazilian medical equipment industry</b> A. P. Almeida, R. Almeida, R. Custódio, C. Trzesniak and C. Mello, Brazil</p> <p><b>A systematic approach to improve the reprocessing of surgical instruments</b> N. Scheinberg, B. Zhang, L. Raschid, R. Mwenesi, M. Grum, M. Chan, A. Cohn, J. DeRosier and J. Bagian, USA</p> <p><b>Building safety into medical devices: The non-injectable arterial connector preventing wrong route drug administration</b> M. Mariyaselvam, A. Gupta and P. Young, UK</p> <p><b>Salivary biomarkers as monitoring tool in human factors: Application in space dentistry</b> B. Raj, USA</p> <p><b>Design, ergonomomy for orthodontics</b> V. Rosa, F. Cordier and J. Berton, France</p>	



<p><b>140</b></p>	<p><b>Ergonomics Design of Manufacturing Processes</b> Co-Chairs: A. Mertens and T. Hellig, Germany</p>	<p>MFG</p>
<p>13:30-15:30 - OCEANIC 5</p>	<p><b>Goal-based manufacturing gamification: Bolt tightening work redesign in the automotive assembly line</b> S. Roh, K. Seo, J. Lee, J. Kim, H. Ryu, C. Jung, H. Lee and J. Shin, Korea</p> <p><b>A case study in automotive assembly line: Exploring the design framework for manufacturing gamification</b> J. Lee, J. Kim, K. Seo, S. Roh, C. Jung, H. Lee, J. Shin, G. Choi and H. Ryu, Korea</p> <p><b>Prerequisites and conditions for socially sustainable manufacturing in Europe's future factories – results overview from the So Smart Project</b> C. Berlin, I. Barletta, P. Fantini, K. Georgoulas, C. Hansich, M. Lanz, J. Latokartano, M. Pinzone, G. Schönborn, J. Stahre, M. Taisch and R. Tuokko, Sweden/Finland</p> <p><b>Determination of energy expenditure of direct workers in automotive harnesses industry</b> J. De la Riva Rodríguez, E. I. Estrada, R. M. Reyes Martinez and A. W. Prieto, México</p> <p><b>Managing OHS in complex and unpredictable manufacturing systems: Can FRAM bring agility?</b> A. Melanson and S. Nadeau, Canada</p> <p><b>Analyzing the relationship between lean production and ergonomics</b> R. K. Jazani and S. S. Mousavi, Iran</p>	
<p><b>141</b></p>	<p><b>Safety Management and Human Factors V</b> Chair: A. Rytelawska, Poland</p>	<p>SMHF</p>
<p>13:30-15:30 - OCEANIC 7</p>	<p><b>A new proposal of lighting layout for workplaces</b> C. C. Gomes and S. Preto, Portugal</p> <p><b>Occupational exposure to whole-body vibrations in bus drivers – systematic review</b> P. da Costa, L. Matos and J. Baptista, Brazil</p> <p><b>Health promoting games as part of the strategy of the organization</b> K. Lis, A. Rytelawska and E. Wierzejska, Poland</p> <p><b>The effects of electromagnetic fields of low frequency band on a person in the operation of electrical transport</b> A. Zakirova and K. Kuznetsov, Russia</p>	
<p><b>142</b></p>	<p><b>Physical Ergonomics and Human Factors: Aviation</b> Co-Chairs: S. Mamessier, USA, and T. Hofmann, Germany</p>	<p>PEHF</p>
<p>13:30-15:30 - EUROPE 6</p>	<p><b>Good sleep quality and ways to control fatigue risks in aviation – An empirical study with commercial airline pilots</b> S. Sieberichs and A. Kluge, Germany</p> <p><b>HTA-based tracking of pilot actions in the cockpit</b> S. Mamessier and K. Feigh, USA</p> <p><b>DFS Concept Desk - An approach to an intuitive UX for air traffic control</b> T. Hofmann, J. Bergner and R. Schnuell, Germany</p> <p><b>The experimental study of temperature effect on human blood flow based on the controllable temperature cabin</b> Y. Chen, H. Qiao, B. Pei, Y. Fan and L. Ding, China</p> <p><b>Human factors in aviation accidents: a study in Nigeria</b> A. Daramola, Nigeria</p> <p><b>Air traffic incidents and physical conditions of workplaces of air traffic controllers of the POAF</b> M. Corticeiro Neves and M. Pereira, Portugal</p>	

<p><b>143</b></p>	<p><b>Safety Leadership and Organizational Change</b> Chair: J. Kantola, Finland</p>	<p>HFML</p>
<p>13:30-15:30 - EUROPE 4</p>	<p>Assessing safety leadership effectiveness in sociotechnical organizations T. -E. Kim and S. Nazir, Norway Human resource development intervention towards community engagement: A journey to corporate social responsibility R. Shaari, Z. Khalifah, A. Rajab and N. A. S. Zulkarnain, Malaysia Communicating organizational change: Effects of message framing and usability on attitudes to organizational change M. Johal, UK Teachers' perspective on upward evaluation in basic education departments in Metro Manila H. Anorico, Philippines Real estate value and waste-to-energy plant: From the perspective of hedonic price model C. Sun and X. Meng, China Leadership development: does mental model matter? F. Bressan, Brazil</p>	
<p><b>144</b></p>	<p><b>Warning Systems/Public Transport</b> Chair: J. de Winter, The Netherlands</p>	<p>RR</p>
<p>13:30-15:30 - EUROPE 8</p>	<p>Effects of intersection collision warning systems and traffic calming measures on driver's behavior at intersections M. Silvestri and F. Bella, Italy Directional identification of sirens and warnings in a simulated driving task: Comparison of two loudspeaker technologies C. Megard, V. LeGueuvout, S. Strachan, C. Mercier and C. Bolzmacher, France Quality of service analysis of the transit system in Mayagüez, Puerto Rico: Implementing the new transit capacity &amp; quality of service manual E. Roman and W. Cordero, USA Bus rapid transit system (BRTS): A case study to investigate its use by the persons with disability D. Chaurasia, S. Sankat and S. Solanki, India Ergonomic assessment and evaluation of Philippine buses for Filipinos: A case study on Metro Manila city buses D. V. Bombais, J. A. Ferrer, A. P. Perea and A. J. Portus, Philippines QZTool – Automatically generated origin-destination matrices from cell phone trajectories C. Horn, H. Gursch, R. Kern and M. Cik, Austria</p>	
<p><b>145</b></p>	<p><b>Design for Inclusion: The Japanese Perspective</b> <b>SPECIAL SESSION: PLENARY SPEECH BY HER IMPERIAL HIGHNESS PRINCESS YOHKO, JAPAN</b> <b>WHAT DOES OUR EXISTENCE MEAN? THE MEANING OF CONNECTION BETWEEN CULTURES AND PEOPLE</b> Chair: K. Kawahara, Japan</p>	<p>DI</p>
<p>13:30-15:30 - ASIA 4</p>	<p>Creating social environment in which the characteristics of each person is respected Y. Mikasa and K. Kawahara, Japan Universal design in Japan, succeeded and developed from the original concept in the USA K. Kawahara, Japan Applicability of haptics for universal design: A study to develop a new system for visually impaired people M. Kubo, Japan Panasonic Group's universal design measures Y. Nakao, Japan Built environment design toward an inclusive society: How can we improve the existing infrastructure in cities? S. Kose, Japan Effect of cross-sectional shape of small level change on walkability Y. Goto, M. Miyake, K. Sato and S. Kose, Japan</p>	

146	<b>Job Satisfaction, Workload, and Stress Burnout</b> Co-Chairs: A. Naddeo, Italy, and J. Zumba, Brazil	SOE
13:30-15:30 - EUROPE 5	<p><b>Occupational stresses on employees in lean production systems</b>                  U. Dombrowski, A. Reimer and S. Ernst, Germany</p> <p><b>Customer-related stressors and effects on burnout: A study in Turkey</b>                  S. Aytac and M. Aytac, Turkey</p> <p><b>Using axiomatic design to identify the elements that affect the evaluation of comfort\discomfort perception</b>                  N. Cappetti, A. Naddeo, R. Califano and M. Vallone, Italy</p> <p><b>A model of improving individual satisfaction in group conversation based on estimation of group status</b>                  S. Kono and K. Aihara, Japan</p> <p><b>Risk factors related to the workplace and burnout syndrome in nursing professionals</b>                  J. Zumba, Brazil</p> <p><b>Causes of workplace stress in textile industry of developing countries: A case study from Pakistan</b>                  A. Ahmad, A. Hussain, Q. W. Ahmad and B. U. Islam, Pakistan</p>	
147	<b>Ergonomics in Building and Architecture II</b> Chair: W. Bonenberg, Poland	SINF
13:30-15:30 - EUROPE 7	<p><b>Cross-cultural design and its application in architecture</b>                  W. Bonenberg, Poland</p> <p><b>Aesthetics and composition of forms in the design of means of transport and rehabilitation for people with disabilities</b>                  A. Bonenberg, Poland</p> <p><b>Application of the Green Roof System in small and medium urban cities</b>                  M. Zhou and W. Bonenberg, Poland</p> <p><b>Shift of the function of "temple of the travelling" from railway stations to airports</b>                  R. Tarczewski, E. Trocka-Leszczynska and J. Jablonska, Poland</p>	
148	<b>Ergonomics Modeling and Usability Evaluation I</b> Chair: C. Falcao, Brazil	EMUSP
13:30-15:30 - EUROPE 1	<p><b>Evaluation of a real-time feedback solution for ergonomic parameters using smart sensors and user centered design</b>                  T. Römer, C. Stockinger and L. Bier, Germany</p> <p><b>Development and evaluation of packaging prototypes in a teaching context of ergonomic design: A didactic experience</b>                  G. C. Bonfim, F. Medola and L. Paschoarelli, Brazil</p> <p><b>Usability in the development of packaging design: Complementing the subjective evaluation</b>                  G. C. Bonfim, F. Medola and L. Paschoarelli, Brazil</p> <p><b>Integrating UCD and agile methodologies in the development of a mobile catalog of plants</b>                  M. Aguilar and C. Zapata, Perú</p> <p><b>Product usability: A methodology to evaluate usability of emerging technologies</b>                  C. Falcao, T. Ahram and M. Soares, Brazil/USA</p> <p><b>Collecting data of SNS user behavior to detect the symptom of its excessive usage – development of data collection application</b>                  P. Intapong, T. Achalakul and M. Ohkura, Japan</p> <p><b>Assessing the adoption of innovative techniques in ceiling drywall installation</b>                  P. Dasgupta, P. Wahjudi and B. Buchholz, USA</p>	

<b>149</b>	<b>Products and Value Networks in Management and Leadership</b> Co-Chairs: T. Reunanen and M. Penttinen, Finland	<b>HFBMS</b>
13:30-15:30 - EUROPE 3	<p><b>Internet marketing strategy for furniture industry: A research based ergonomics sofa</b> S. Ismail, A. A. A. Rahman, A. R. Ismail, K. A. M. Daud and N. Z. Khidzir, Malaysia</p> <p><b>The design service as an improvement tool of the international show of bobbin lace from Peniche</b> I. Bieger, C. Carvalho and G. Montagna, Portugal</p> <p><b>“Wow factor” for boosting businesses</b> T. Reunanen, M. Penttinen and A. Borgmeier, Finland</p> <p><b>City branding and the way it is perceived in people’s mind: A case study of Milad Tower in Iran</b> A. Bayat, Iran</p> <p><b>Psychic distance, purchase intention and life satisfaction. An analyzing of international purchase websites</b> M. Oliveira, R. Baptista and J. M. Meireles Souza, Brazil</p>	
<b>150</b>	<b>Game-Based Learning</b> Chair: K. Orvis, USA	<b>TELS</b>
13:30-15:30 - OCEANIC 2	<p><b>Game-based evacuation drill inside Google Street View</b> H. Mitsuhashi, T. Inoue, K. Yamaguchi, Y. Takechi, M. Morimoto, K. Iwaka, Y. Kozuki and M. Shihibori, Japan</p> <p><b>Ergonomic considerations of the gaming classroom</b> K. Procci, USA</p> <p><b>Effective game-based training at the point of need</b> E. Darling, J. Bensley, R. Osborne, J. Clapis and R. Crutchfield, USA</p> <p><b>“How good is good enough?” Exploring validation for serious gaming in air traffic control</b> H. Davison Reynolds, R. DeLaura and B. Soulliard, USA</p> <p><b>Immersive games and expert-novice differences</b> A. Bond, J. Brimstin and A. Carpenter, USA</p> <p><b>Human factors in instructional design of serious games and educational simulations</b> A. Hayes, USA</p> <p><b>Movement electronic games as NA assist tool for students with learning difficulties</b> E. C. Matos and M. A. Lima, Brazil</p>	
<b>151</b>	<b>Cybersecurity Situational Awareness for Critical Infrastructure</b> Co-Chairs: J. Zaiantz and D. Nicholson, USA	<b>CYBER</b>
13:30-15:30 - OCEANIC 8	<p><b>Human capability evaluation approach for cybersecurity in critical industrial infrastructure</b> U. D. Ani, H. He and A. Tiwari, UK</p> <p><b>Applying cognitive adaptive visualization to cyber-security operational displays</b> J. Zaiantz and J. Nazario, USA</p> <p><b>Improved network graph design methods for operational cybersecurity displays</b> J. Zaiantz, A. Sypniewski and A. Nichols, USA</p> <p><b>Cyber security awareness in the power grid</b> J. Scholtz, L. Franklin, K. Le Blanc and E. Andersen, USA</p> <p><b>Human factor of online social media cybersecurity risk impact on critical national information infrastructure</b> N. Z. Khidzir, A. R. Ismail, K. A. M. Daud, M. S. A. A. Ghani, S. Ismail and M. A. H. Ibrahim, Malaysia</p> <p><b>A breach too far: AcciMap as a means to examine harm caused by data breach responses</b> D. Lacey and G. Walker, Australia</p>	

152	<b>Designing for Inclusion in Learning Experiences</b> Co-Chairs: E. Eika and F. Sandnes, Norway	DI
13:30-15:30 - OCEANIC 6	<p><b>Inclusive design research for children at the master education</b> R. Almendra and G. Falcão, Portugal</p> <p><b>Mobile device development and its contribution to the treatment of young dyslexic Brazilian children</b> T. Bittencourt, J. Savino, H. Fernandes and L. Rebello, Brazil</p> <p><b>Design and evaluation of a universally accessible academic registration portal</b> O. E. Sardroud and Y. M. Choi, USA</p> <p><b>Assessing the reading level of web texts for WCAG 2.0 compliance – can it be done automatically?</b> E. Eika and F. Sandnes, Norway</p> <p><b>Co-design: Bridging the gap between users and designers</b> S. Martinez, K. Scott-Brown and B. Smaradottir, Norway</p> <p><b>Inclusive culture and design as an inclusion instrument for people with disabilities in school environment in Brazil</b> E. C. Matos and M. A. Lima, Brazil</p> <p><b>E-books for inclusion: Interactive storytelling to aid deaf children learn new words of oral languages</b> S. Crenzel and A. Zandomeneghi, Brazil</p>	
153	<b>Theoretical Advances in Cognitive and Neuroergonomics I</b> Co-Chairs: M. Causse, France, and S. Sherwood, USA	CN
13:30-15:30 - OCEANIC 4	<p><b>Cognitive and emotional-motivational implications in the job design of digitized production drilling in deep mines</b> M. A. Sanda, Ghana</p> <p><b>Measuring operator emotion objectively at a complex final assembly station</b> S. Mattsson, D. Li, Å. Fast-Berglund and L. Gong, Sweden</p> <p><b>Effect of desk position on frustration and decision making in lone working</b> C. -W. Ong, A. Roberts, E.-H. Lee, G. Christopoulos and C. -K. Soh, Singapore</p> <p><b>Rise of the low-cost eye trackers: An evaluation of several new systems as research tools</b> J. Coyne, C. Sibley and S. Sherwood, USA</p> <p><b>A comparative study on 3D/2D visual search performance on different visual display terminals</b> H. Zhang, R. Yu, L. Feng and X. Wu, China</p> <p><b>Aging effects on brain efficiency in general aviation pilots</b> Z. Chua and M. Causse, France</p>	
15:30 - 16:00 Refreshments will be provided in Atlantic Hall		
154	<b>Multi-Sided Measurement of Service System</b> Chair: K.-S. Hidaka, Japan	HSSE
16:00-18:00 - AUSTRALIA 2	<p><b>Toward a value metrics: A service-dominant logic view</b> A. K. Siddike and K. Hidaka, Japan</p> <p><b>Benchmarking of service systems using multi-sided metrics</b> T. Takenaka and K. Hidaka, Japan</p> <p><b>The relationship model of three benefit factors in delayed benefit services</b> C. Morito and K. Fujimura, Japan</p> <p><b>Developing an ad-hoc questionnaire model for extracting exceptional handling communications in service</b> H. Masuda, Japan</p> <p><b>Qualitative analysis of hospitality extended to patients by reception desk clerks at Japanese dental clinics</b> Y. Kamagahara, S. Jin, X. Lu, T. Takeda, N. Kida, T. Hara and T. Ota, Japan/USA</p> <p><b>A taxonomic classification for advertising design and development process based on concurrent engineering</b> D. Reyes Sanjuán and R. Peña-Baena Niebles, Colombia</p> <p><b>Program entrepreneurship and innovation: Education as the core of Innovation</b> D. Garcia, A. Leles and R. Romano, Brazil</p>	

<p><b>155</b></p>	<p><b>Affective Value Creation / Kawaii II</b> Chair: M. Ohkura, Japan</p>	<p>APD</p>
<p>16:00-18:00 - ASIA 1</p>	<p><b>A perceptual study of robot design in the Japanese robot anime series, "Mobile Suit Gundam"</b> N. Hayashi and M. Yamada, Japan</p> <p><b>A perceptual study of monster design in the context of cool Japan contents</b> R. Yanagida and M. Yamada, Japan</p> <p><b>Proportion of facial features for constructing a "Moe" character</b> Y. Iijima, Y. Wada and M. Yamada, Japan</p> <p><b>Impression of characters in the Japanese magical girl anime meta-series, "Pretty Cure"</b> S. Oosawa and M. Yamada, Japan</p> <p><b>Evaluation of the levels of kawaii ribbons among genders and generations of Japanese and Saudi Arabians</b> E. Barnawi and M. Ohkura, Saudi Arabia/Japan</p> <p><b>The study of kawaii feeling by using eye tracking</b> T. Laohakangvalvit, I. Iida, S. Charoenpit and M. Ohkura, Japan</p> <p><b>Kawaii in Japanese culture through alien eyes</b> B. R. Claudio and S. Nakagawa, Brazil</p>	
<p><b>156</b></p>	<p><b>Human Factors in Aviation II</b> Co-Chairs: O. Ohneiser, Germany, and S. Cookson, Japan</p>	<p>AVI</p>
<p>16:00-18:00 - ASIA 2</p>	<p><b>Follow-the-greens: The controllers' point of view results from a Sesar real time simulation with controllers</b> K. Straube, M. Roßbach, B. Vieten and K. Hahn, Germany</p> <p><b>Purple sky framework towards the flight deck of the future experience: Through co-design, rapid UX prototyping, and user testing</b> S. Y. Kim, J. Cooper, A. Carroll and S. Murugappan, USA</p> <p><b>An important failure: Lessons from Daedalus and Icarus</b> S. Cookson, Japan</p> <p><b>Improved user acceptance during stepwise air traffic control display functionality introduction</b> O. Ohneiser, Germany</p> <p><b>Detection of mind-wandering using an eye-tracker in an aeronautical context during a long supervision task</b> C. Gontier and C. Dietrich, France</p>	
<p><b>157</b></p>	<p><b>Foreign Relations: Tools and Analyses</b> Chair: M. Hoffman, USA</p>	<p>CCDM</p>
<p>16:00-18:00 - ASIA 3</p>	<p><b>Evaluating automatic learning of structure for event extraction</b> J. Schlachter, D. Van Brackle, L. A. Reynoso, J. Starz and N. Chambers, USA</p> <p><b>Scenario-based practical exercises to train and assess general cross-cultural competence for Special Operations Forces</b> J. Mateo, M. McCloskey, C. Leishman and M. Federe, USA</p> <p><b>Integrating realistic socio-cultural dynamics into military training</b> M. S. Pickett, USA</p> <p><b>What do they say? Massive harvest and analysis of on-line articles and comments</b> A. Presnall, USA</p> <p><b>Propaganda and recruitment campaigns in online social systems: A computational decision-making framework</b> E. Ferrara and A. Galstyan, USA</p> <p><b>Using a systemic approach to understand culture paradigm: Towards a holistic framework</b> H. Aboutaleb, France</p>	

<p><b>158</b></p>	<p><b>Ergonomics Evaluations</b> Chair: H. Hemphälä, Sweden</p>	<p>PEHF</p>
<p>16:00-18:00 - ASIA 4</p>	<p>The pattern of upper arm and back movements for automotive assembly operators: Exposure variation analysis of acceleration data M. Zare, B. Mignot, J.-C. Sagot and Y. Roquelaure, France</p> <p>Lighting for computer workstations H. Hemphälä, W. Osterhaus and P. Nylén, Sweden</p> <p>Visual ergonomics for operating theatres H. Hemphälä, P.-S. Larsson, G. Johansson, J. Borell and P. Nylén, Sweden</p> <p>Adaptive flexibility: Examining the role of expertise in the decision making of authorized firearms officers during armed confrontation L. Boulton and J. Cole, UK</p> <p>Evaluation and comparison of postural muscles in exercise activities: An ergonomic analysis K. Jackson, Jr., USA</p> <p>To study the effects of body mass index on biomechanics of adult female foot A. Sarkar, India</p>	
<p><b>159</b></p>	<p><b>Assessing Cognition and Performance</b> Chair: B. Frank, Germany</p>	<p>CN</p>
<p>16:00-18:00 - ASIA 5</p>	<p>Mental workload measured with index of cognitive activity in a simulated process control task B. Frank and A. Kluge, Germany</p> <p>Effect of time pressure on work efficiency and cognitive judgment J. Yabuki and H. Hagiwara, Japan</p> <p>Cognitive architecture based platform on performance evaluation for space manual control task Y. Liu, Z. Tian, Y. Liu, J. Li and F. Fu, China</p> <p>Behavioral test for prediction of individual differences in dynamic decision making ability D. Lafond, J.-F. Gagnon, S. Pronovost, M. DuCharme and S. Tremblay, Canada</p> <p>Multi-level cognitive cybernetics in human factors D. Cassenti, K. Gamble and J. Bakdash, USA</p> <p>Analysis on the effect to memory retention of music, ambient noise, and its interaction J. A. Adizon, J. R. Aldiosa, R. M. Bontia and B. Custodio, Philippines</p> <p>Research and analysis on the influence factors of spatial perception ability M. -X. Liu, China</p>	
<p><b>160</b></p>	<p><b>Situational Awareness, Design and Computational Modeling</b> Co-Chairs: R. Bhatt and J. Arora, USA</p>	<p>ADHMS/ HFSIM</p>
<p>16:00-18:00 - OCEANIC 1</p>	<p>Field study on the application of a simulation-based software tool for the strain-based staffing in industrial manufacturing P. Gust, U. Mueller, N. Feller and M. Schiffmann, Germany</p> <p>A quantitative comparison of operator field of view for vehicle design M. King, J. Jinkerson, T. Garrison, D. Irby and D. Carruth, USA</p> <p>An integrated computational simulation system for injury assessment S. Sultan, K. Abdel-Malek, J. Arora, R. Bhatt and T. Marler, USA</p> <p>Identifying the factors affecting automotive driving posture and their perceived importance for seat and steering wheel adjustment X Wang, J. Bulle, G. C. Dominioni and S. Compigne, France</p> <p>Optimization-based prediction of the motion of a soldier performing the "going prone" and "get up from prone" military tasks M. Hariri, USA</p> <p>Design of an impact attenuation hybrid spacecraft seat structure to determine human segmental responses V. Beluguppa and S. N. Omkar, India</p>	

<p><b>161</b></p>	<p><b>Information Design I</b> Co-Chairs: L. Wu, China, and D. Rodríguez-Valero, Spain</p>	<p>ED</p>
<p>16:00-18:00 - OCEANIC 3</p>	<p><b>Typographic literacy: Are users able to perceive what we design?</b> D. Rodríguez-Valero, F. Olivares and A. Pinillos-Laffon, Spain</p> <p><b>The You-Are-Here sign in public maps: A design study with special focus on orientation and direction elements</b> K. -H. Chiu and M. -C. Zheng, Taiwan</p> <p><b>Study on interface design for smart phone based indoor navigation under special consideration of information judgment by the user in emergency evacuation scenarios</b> C.-I. Chen and M.-C. Zheng, Taiwan</p> <p><b>A study on landmark design of way-finding map in Taipei main station</b> K. -T. Chang and M. -C. Zheng, Taiwan</p> <p><b>Do I have to be a teacher of graphic design to be in graphic design history?</b> G. Falcão and R. Almendra, Portugal</p> <p><b>Design entropy: A new approach for evaluating user experience in user interface design</b> L. Wu, J. Li and T. Lei, China</p> <p><b>Practice theory approach to human factors</b> P. Savioja, H. Koskinen and L. Norros, Finland</p>	
<p><b>162</b></p>	<p><b>Human Factors and Ergonomics Testing</b> Chair: N. Lightner, USA</p>	<p>HC</p>
<p>16:00-18:00 - OCEANIC 5</p>	<p><b>Development of a new psychometric scale (PYTHEIA) to assess the satisfaction of users with any assistive technology</b> Y. Koumpouros, E. Papageorgiou and A. Karavasili, Greece</p> <p><b>A study on the methodology to analyze and prevent medical errors due to non-observance behaviors</b> H. Jin, M. Munechika, M. Sano, C. Kajihara, H. Chen and F. Guo, China</p> <p><b>Cognitive competence for human-intelligent machine interactions</b> A. Apte, USA</p> <p><b>Ergonomic performance measurement system of work-systems in healthcare</b> E. Saha and P. Ray, India</p> <p><b>Experiences of the newborn screening confirmatory testing period</b> L. Moody, UK</p> <p><b>When do you know you're finished testing? Generating and verifying usability requirements in an iterative human-centered design process</b> D. Hooper, USA</p>	
<p><b>163</b></p>	<p><b>Organization Design and Management</b> Chair: S. Trzcielinski, Poland</p>	<p>MFG</p>
<p>16:00-18:00 - OCEANIC 7</p>	<p><b>Information and communication support of the fuzzy knowledge resources</b> J. Kalkowska, Poland</p> <p><b>The agility of knowledge-based organizations</b> H. Wlodarkiewicz-Klimek, Poland</p> <p><b>Achieving mass customization through additive manufacturing</b> R. Mahamood and E. Akinlabi, South Africa</p> <p><b>Organizational structure and agile enterprise. Anticipated effects and empirical results from Polish enterprises</b> E. Pawlowski and K. Pawlowski, Poland</p> <p><b>Organizational learning and knowledge management – insights from industrial managers</b> A. Amaral, M. Araújo and C. Rodrigues, Portugal</p> <p><b>Flexibility of SMES</b> S. Trzcielinski, Poland</p>	



<b>164</b>	<b>Safety Management and Human Factors VI</b> Chair: W.-K. Chiou, Taiwan	<b>SMHF</b>
16:00-18:00 - EUROPE 6	<p><b>Testing the effect of audio, visual, and heat stimuli on pilots generated by an aircraft bird strike collision avoidance system</b> B. Abrecht and J. Newcamp, USA</p> <p><b>Key parameters of occupational safety for sustainable manufacturing units - a review</b> V. Singh, A. Singh and P. Kaur, India</p> <p><b>Anthropometric measurements of the external auditory canal for hearing protection earplug</b> W. -K. Chiou, D.-H. Huang and B. -H. Chen, Taiwan</p> <p><b>Development of a user interface for the enrichment of situational awareness in emergency management systems</b> N. Oliveira, F. Jorge, J. Souza, V. Pereira, Jr., and L. Botega, Brazil</p> <p><b>Semi visible face detection for safety in unconstrained crowd environment</b> S. Gul and H. Farooq, Pakistan</p> <p><b>CVD adaptive method through shape enhancement</b> M. Ribeiro and A. J. Gomes, Portugal</p>	
<b>165</b>	<b>Safety and Risk Management I</b> Co-Chairs: R. Jensen, USA, and M. R. Suryoputro, Indonesia	<b>SMHF</b>
16:00-18:00 - EUROPE 4	<p><b>Risk assessment of aluminum foundry SME using ergonomics approach</b> A. D. Sari, M. Suryoputro, R. Kurnia and H. Purnomo, Indonesia</p> <p><b>Risk for first responders due to cognitive workload and communication loss</b> E. Irwin, R. Guest, M. Rahman, USA</p> <p><b>Mental workload analysis using NASA-TLX method between various level of work in plastic injection division of manufacturing company</b> E. Puspawardhani, M. Suryoputro, A. Sari, R. Kurnia and H. Purnomo, Indonesia</p> <p><b>Safe distance for machinery actuators: Is after-reach speed a constant?</b> R. Jensen and T. Stobbe, USA</p> <p><b>Integrated risk assessment - psychosocial risks associated with MSDS</b> J. L. O. Pinto, M. Basto and M. C. Neves, Portugal</p>	
<b>166</b>	<b>Wearables and Innovative Interfaces</b> Co-Chairs: J. Pei and D. Thirtyacre, USA	<b>PEHF</b>
16:00-18:00 - EUROPE 8	<p><b>Can secondary traffic alerts improve the latent hazard anticipation ability of novice and experienced drivers? A simulator study</b> T. Zhang, S. Samuel, T. Zafian, C. Nicholas, J.-Y. Zhang, M. Knodler and D. Fisher, USA</p> <p><b>Acceptable physical attributes of wearable computing devices, based on human factors</b> H. Park, J. Pei, M. Shi, Q. Xu and J. Fan, USA</p> <p><b>Analysis of stress and strain in head based control of collaborative robots – A literature review</b> J. Nelles, S. Kohns, C. Brandl, J. Spies, A. Mertens and C. Schlick, Germany</p> <p><b>Design a stretchable elbow brace by the use of 3D printed mesostructure</b> Y. J. Li, C.-H. Chen, Z.-Y. Hoe and Z. -X Yin, Taiwan</p> <p><b>Development of a new information interface for elderly using vibrations</b> S. Lutherdt, F. Roß and H. Witte, Germany</p> <p><b>Development gestural interface for motorized wheelchair control</b> B. Silva, E. Santana and I. Maia, Brazil</p>	

<b>167</b>	<b>Driver Psychophysiology and Eye Tracking</b> Chair: P. Salmon, Australia	<b>RR</b>
16:00-18:00 - EUROPE 5	<p><b>Skill metrics for mobile crane operators based on gaze fixation pattern</b> J. Y. Chew, K. Ohtomi and H. Suzuki, Japan</p> <p><b>Individual factors and dynamic patterns for driver eye glance and head turn correspondence: Supplemental driver gaze location estimation and driver classification</b> R. Tian, USA</p> <p><b>Impact of motorcyclists' travel behaviour on delay and level-of-service at signalised intersections in Malaysia</b> L. V. Leong and J. H. Lee, Malaysia</p>	
<b>168</b>	<b>Eco-Driving and Electric Vehicles</b> Chair: K. Revell, UK	<b>RR</b>
16:00-18:00 - EUROPE 7	<p><b>Well worth a detour - users' preferences regarding the attributes of fast-charging infrastructure for electro-mobility</b> R. Philipsen, T. Schmidt and M. Ziefle, Germany</p> <p><b>Introducing wireless charging for drivers of electrical cars in Sweden – effects on driver behavior and attitudes</b> J. Andersson, M. Nilsson and S. Pettersson, Sweden</p> <p><b>Exploring the value of information delivered to drivers</b> J. Chun, S. Kim and A. Dey, USA</p> <p><b>A typology of in-vehicle eco-driving feedback</b> A. Sanguinetti, H. Park, S. Sikand and K. Kurani, USA</p> <p><b>Formal verification of cyber physical systems for semi-autonomous vehicles</b> D. Etim, H. Albarakati and K. Udeh, USA</p> <p><b>Overall ergonomic assessment of the city optimized managed electric transport (COMET)</b> P. J. Flores and A. J. Portus, Philippines</p>	
<b>169</b>	<b>Accidents and Safety</b> Co-Chairs: R. M. Reyes, Mexico, and A. Silvetti, Italy	<b>SOE</b>
16:00-18:00 - EUROPE 1	<p><b>Stimulation of voluntary motivation toward safety management activities: Activity inactivation by mannerism</b> K. Katayama and M. Nakanishi, Japan</p> <p><b>Development of a taxonomy of human error causation of accidents involving injuries to hands in the harnesses industry</b> R. M. Reyes Martinez, J. De la Riva Rodríguez, R. De la O Escapita, A. Wookay and A. Maldonado Macias, Mexico</p> <p><b>A novel to approach to quantify the risk probabilities for a risk analysis methodology</b> N. F. Ozkan and B. Ulutas, Turkey</p> <p><b>Ergonomic risk assessment of marine fishermen part I: Manual material handling</b> A. Silvetti, E. Munafò, A. Ranavolo, S. Iavicoli and F. Draicchio, Italy</p> <p><b>Ergonomic risk assessment of marine fishermen part II: Upper limb repetitive movements</b> A. Silvetti, E. Munafò, A. Ranavolo, S. Iavicoli and F. Draicchio, Italy</p> <p><b>Analysis of the conditions of hygiene and safety in a fixed position weight control and dimensions of road freight</b> G. Stelmaszczuk, S. Kolodziej and E. Cruz, Argentina</p>	

<b>170</b>	<b>Ergonomics Modeling and Usability Evaluation II</b> Chair: M. Minge, Germany	<b>EMUSP</b>
16:00-18:00 - EUROPE 3	<p>Seamless user analysis with integrated user models in a usability engineering repository A. Hüttig and M. Herczeg, Germany</p> <p>The meCUE questionnaire. A modular evaluation tool for measuring user experience M. Minge, M. Thüning, I. Wagner and C. Kuhr, Germany</p> <p>The hierarchical model of spatial orientation task in a multi-module space station J. Guo, G. Jiang, Y. Liu and Y. Tian, China</p> <p>Aid for the user-centered evaluation of human machine interfaces during ramp-ups of socio-cyber-physical production systems I. Heine, P. Beaujean and R. Schmitt, Germany</p> <p>Redesign of a laboratory website using user centered design method and WEBUSE S. Kurniasih, A. P. Hendradewa, A. D. Sari and M. R. Suryoputro, Indonesia</p> <p>Applying the principles of usability systems case study: Service scheduling system V. Moreira, Brazil</p> <p>Implication of visualization language on a user while searching for best solution in a search space H. Farooq, Pakistan</p>	
<b>171</b>	<b>Designing for Inclusion for Ageing Population</b> Chair: S. Martinez, Norway	<b>DI</b>
16:00-18:00 - OCEANIC 4	<p>AGDER living lab: From ideas to large-scale deployment and long-term user adoption of inclusive health solutions S. Martinez, S. Bjerkås, A.-E. Ludvigsen and R. Fensli, Norway</p> <p>Ergonomics and inclusive design: Medical devices innovation for home care F. Tosi, A. Rinaldi and D. Busciantella Ricci, Italy</p> <p>Design as a tool to communicate diverse experiences during later life transitions (retirement) C. McGinley, F. Salnot and R. Gheerawo, UK</p> <p>Creating inclusive, living environment in urban residences for Indian elderly S. Sankat, and R. Khare, India</p> <p>Meeting particular needs in mobility for elderly and spinal cord injury users N. Coral, Mexico</p>	
<b>172</b>	<b>Human Resource Management</b> Co-Chairs: T. Barath, Hungary, and S. Pickl, Germany	<b>HFML</b>
16:00-18:00 - OCEANIC 6	<p>Skills and human engineering issues at task design J. -M. Salotti and O. Chator, France</p> <p>The role of crowd-funding as a business model in new media industry A. Szopa, T. Marek and M. Fafrowicz, Poland</p> <p>Leader integrity and employee outcomes: Where do they collide? K. Dartey-Baah and R. Arthur, Ghana</p> <p>Heterogeneity of leadership styles as behavioral units: The role of personality in searching for leadership profiles. Implication for the organizational practice J. Babiak, B. Bajcar and C. Nosal, Poland</p> <p>A study of the current status of diversity fault lines in Japanese work organizations T. Iwaasa, N. Shoji and M. Mizuno, Japan</p> <p>Intuitive number evaluation is not affected by information processing load Z. Rusou, D. Zakay and M. Usher, Israel</p> <p>Enabling organizational innovation: Role of job engagement, organizational commitment, transformational leadership and knowledge sharing A. Fatima, R. Imran and K. Al-Ansi, Pakistan</p>	

<b>173</b>	<b>Cybersecurity Research for Human Effectiveness</b> Co-Chairs: S. Lathrop and D. Nicholson, USA	<b>CYBER</b>
16:00-18:00 - OCEANIC 8	<p><b>Applying human factors research towards cyberspace operations: A practitioner's perspective</b> S. Lathrop, S. Trent and R. Hoffman, USA</p> <p><b>Contextualizing mnemonic phrase passwords</b> P. McEvoy and J. Still, USA</p> <p><b>Research directions in authentication and personal data</b> K. Richards and A. Norcio, USA</p> <p><b>Current cybersecurity threats: Analysis and solutions from a human factors perspective</b> M. Syed and M. Algarni, USA</p> <p><b>Collaborative data analysis and discovery for cyber security</b> V. Mancuso, D. Staheli, R. Harnasch, C. Fulcher, M. Chmielinski and S. Kelley, USA</p> <p><b>SCAN &amp; SEEK - Southern Cyber Academic Network (SCAN) &amp; Secure Electronic Evidence Kit (SEEK)</b> M. Hudhall, USA</p>	

Sunday, July 31, 2016

<b>174</b>	<b>Cross-Cultural Collaboration and Its Challenges</b> Chair: C. Leitner, Austria	<b>HSSE</b>
8:00-10:00 - AUSTRALIA 2	<p><b>Patterns of change. A study of the relation between the development of electronic governance, actors, institutions, and organizations</b> N. Leosk, Estonia</p> <p><b>Study of the difference in the movement of experienced and inexperienced persons in Japanese bowling</b> T. Takeda, Y. Kamagahara, X. Lu, N. Kida, T. Hara and T. Ota, Japan/USA</p> <p><b>The study of the effect verification of Japanese bowling and customer reaction in the Japanese wedding industry</b> S. Takami, N. Kida and T. Ota, Japan</p> <p><b>Ethical issues in online education</b> D. Satterfield and S. Kelle, USA</p> <p><b>Value co-creation during service encounters to enhance value experience</b> D. Nielsen, Y. Lin and A. White, UK</p> <p><b>The consonance between smart cities and creative cities - how culture, creativity and social practices can assist in better urban development</b> C. Souza and L. Pereira, Brazil</p>	
<b>175</b>	<b>Design of Human Interface and Affective Communication II</b> Chair: K. Morimoto, Japan	<b>APD</b>
8:00-10:00 - ASIA 1	<p><b>Design and ease of use: Analysis of individual differences in mental models</b> Y. Nishizaki, T. Doi and T. Yamaoka, Japan</p> <p><b>Presenter supporting system with visual-overlapped positive response on audiences</b> K. Yamamoto, K. Kassai, I. Kuramoto and Y. Tsujino, Japan</p> <p><b>Affective design factors derived from an analysis on body shape and waist size of male workers and design concept of work pants of large west size</b> K. Ohsawa, K. Morimoto, Y. Gyoba, M. Kim and M. Nishimura, Japan</p> <p><b>Adaptive UI for enhanced music experience</b> I. T. Cheng and S. L. See, Singapore</p> <p><b>Using holograms to increase interaction in museums</b> A. Dingli and N. Mifsud, Malta</p> <p><b>Human friendly applications of functional fibers in aging society</b> C. Mizutani, A. Yahata, K. Takahashi, H. Shirai, T. Tokuyama and K. Kajiwa, Japan</p> <p><b>Exploring warmth as an affectionate expression to ameliorate parent-child remote communication</b> S. Lee and T. Schiphorst, Canada</p>	

<b>176</b>	<b>Affective/Emotion in Design Education (ADE)</b> Chair: A. G. Ho, Hong Kong	APD
8:00-10:00 - ASIA 2	<p>Case study: Application of video as an effective storytelling tool in the classroom and its impact on industrial design education J. Rivera-Chang, USA</p> <p>Action research of importing digital service into local brand marketing - the workshop practice T. -Y. Chang, China</p> <p>What makes a good UX questionnaire? User-centered scorecard development S. Lee and M. Ivory, USA</p> <p>A study on the rationality of office Feng Shui based on ergonomics X. Shen, W. He, B. Chen and L. Ding, China</p> <p>When design encounters anthropology: Study on approaches where anthropology gets involved in design M. Lyu, China</p> <p>Modern chair innovative design methodology and approaches based on economic considerations Z. Zhang, J. Cheng, C. Yang and Y. Ye, China</p>	
<b>177</b>	<b>Toward Culturally-Aware Systems</b> Chair: E. Raybourn, USA	CCDM
8:00-10:00 - ASIA 3	<p>Toward culturally-aware next generation learning ecosystems E. Raybourn, USA</p> <p>Investigating cross-cultural differences in trust levels of automotive automation V. Yerdon, T. Marlowe, W. Volante, S. Li, and P. A. Hancock, USA/China</p> <p>Evaluating instructor configurability for adaptive training R. Wray, A. Woods, J. Haley and J. Folsom-Kovarik, USA</p> <p>User-centered game design for different age groups A. Mandeville, USA</p> <p>Emerging simulation projects: Crossing cultures for successful learning E. Smith, USA</p> <p>Backstory elaboration: A method for creating realistic and individually varied cultural avatars D. Zachary, W. Zachary, J. Cannon-Bowers and T. Santarelli, USA</p>	
<b>178</b>	<b>Information Design II</b> Chair: J. Neves, Portugal	ED
8:00-10:00 - ASIA 5	<p>Information searches in engineering design S. Zhang and A. Johnson, UK</p> <p>Analysis of the detectability and conspicuity of fire extinguishers based on placement location in low to moderate hazard public spaces C. L. Capistrano, M. J. Lagonera, P. L. Lim and B. Custodio, Philippines</p> <p>Ergonomics and information design: Design, standardization and uniformization of graphical symbols for public information J. Neves, F. da Silva, D. Paposo and J. Silva, Portugal</p> <p>Systematic pattern code design on kitchenware for operable activities in tangible user interface F. -G. Wu, P.-C. Wang and S. Tan, Taiwan</p> <p>Study on design principle of touch screen with an example of Chinese Pinyin 10 key input method in iPhone X. Wu, T. Xi and Y. Chen, China</p> <p>The contribute of graphic style and connotations to memorability of brand marks from agri-food sector D. Raposo, J. Neves, J. Silva and C. Laginha, Portugal</p> <p>Production design and game design in videogames: Action, emotion and immersion in the player live experience C. Figueiredo, Portugal</p>	

<b>181</b>	<b>Human-Oriented Design of Production Systems</b> Co-Chairs: A. Mertens and T. Hellig, Germany	<b>MFG</b>
8:00-10:00 - OCEANIC 5	<p><b>Effects of macro-ergonomic compatibility of work demands over manufacturing systems' organizational performance</b> A. Realyvásquez, A.-A. Maldonado-Macías, J.-L. García-Alcaraz, K.-G. Gómez-Bull and J. Blanco-Fernández, Mexico</p> <p><b>Approaches for the efficient use of range sensors-based ergonomic assessment results in the ergonomic intervention process of awkward working</b> C. Brandl, T. Hellig, A. Mertens and C. Schlick, Germany</p> <p><b>An activity centered design framework for determining design decision latitudes in production systems</b> C. Berlin and L. -O. Bligård, Sweden</p> <p><b>Effects of human factors in planning and production control activities in remanufacturing companies</b> K. A. Soto, H. Rivera, J. De la Riva Rodríguez and R. M. Reyes Martínez, México</p> <p><b>The human factor in energy decision making</b> P. Ferreira and M. Araújo, Portugal</p> <p><b>Interdisciplinary relationship between craftsman and designer: The potential of concepts and methodologies regarding industrial development in the production system of handmade manufacturing</b> B. Alexandre, A. Valente and E. Gomez, Portugal/Spain</p>	
<b>182</b>	<b>Safety and Health</b> Chair: V. Stara, Italy	<b>PEHF</b>
8:00-10:00 - EUROPE 6	<p><b>Physiological analysis of stoop lifting based on heart rate for the Malaysian population</b> R. M. Yusuff, N. H. Kamarudin, M. Ariffin, S. A. Ahmad and M. Soom, Malaysia</p> <p><b>Evaluation of physical and motor function in an aging population - Methodology design</b> M. Bures, Czech Republic</p> <p><b>Toward a connected health system for older adults: Lessons learned</b> V. Stara, R. Harte, M. Di Rosa, L. Rossi and G. ÓLaighin, Italy/Ireland</p> <p><b>Light: Visual comfort versus artwork health</b> S. Preto and C. Caramelo Gomes, Portugal</p> <p><b>Federal regulation of safety and health in the work and his impact like regulation in the industry Tijuana's factory work, (human factors and the health of the cognitive ergonomics)</b> C. L. V. Ochoa, J. L. Barreras and C. Lopez, Mexico</p> <p><b>Evaluation of psychosocial risks: Heat exposure on workstations</b> M. Cota, J. L. Barreras and C. Lopez, Mexico</p> <p><b>Ergonomic intervention in the sector of waste collection, with the use of Deparis guide method: Case of the municipality of Monastir in Tunisia</b> L. Bouzgarrou, A. Omrane, F. Sayadi, S. Kammoun, A. Kraiem, T. Khalfallah and A. Henchi, Tunisia</p>	

<b>183</b>	<b>Ergonomics Applications</b> Co-Chairs: T. Stack, USA, and F. Ozkan, Turkey	PEHF
8:00-10:00 - EUROPE 4	<p><b>Analysis of parent-child interaction at various space and furniture of reading environment- take parent-child reading areas in Taipei public libraries as an example</b> J. -H. Chang and J. -Y. Wang, Taiwan</p> <p><b>Developing a social capability model of inclusive public facilities: A case study of play space in Hong Kong</b> Y. L. Wong, K. W. Michael Siu and M. S. Lam, Hong Kong</p> <p><b>Firing of a cannon: Psychophysical evaluation of ergonomic hazards</b> T. Stack, D. Autenrieth and L. Ostrom, USA</p> <p><b>Enhancing safety and productivity in fully mechanized forest operations: Workload influence on operator performance</b> G. O. Aalmo, K. I. Fostervold and J. Holt, Norway</p> <p><b>Ergonomics factors in virtual intensive interactions</b> N. Antunano, USA</p> <p><b>Risk analysis of the ergonomic factors involved in the machinery industrial mechanical maintenance of the dried and candied fruits process</b> M. Belinelli, I. Zattar and R. Seleme, Brazil</p> <p><b>Temperature as a psychosocial risk factor, analysis of performance in controlled environment stations</b> V. A. Rodriguez, J. L. Barreras and C. Lopez, Mexico</p>	
<b>184</b>	<b>Vehicle Automation II</b> Chair: N. Stanton, UK	RR
8:00-10:00 - EUROPE 8	<p><b>The unknown paradox of "Stop the Crash" systems: Are we really improving driver safety?</b> V. Banks and N. Stanton, UK</p> <p><b>Calibrating trust to increase the use of automated systems in a vehicle</b> S. Khastgir, S. Birrell, G. Dhadyalla and P. Jennings, UK</p> <p><b>Cooperative guidance and control in highly automated convoys – StrAsRob</b> M. Baltzer, C. Rudolph, D. López and F. Flemisch, Germany</p> <p><b>Autonomous vehicles in developing countries: A case study on user's view point in Pakistan</b> A. Hussain, I. Sanullah, A. Chaudhry, K. Case and M. Enoch, Pakistan/UK</p> <p><b>A new method and results for analyzing decision-making processes in automated driving on highways</b> E. Altendorf, C. Schreck and F. Flemisch, Germany</p> <p><b>Driver's information needs while supervising an automated, fuel efficient, longitudinal vehicle control</b> S. Stockert, S. Weise, A. Zimmermann and M. Lienkamp, Germany</p>	
<b>185</b>	<b>Driver Behavior II</b> Chair: D. McAvoy, USA	RR
8:00-10:00 - EUROPE 2	<p><b>Psychological effects of real-time travel information for heterogeneous driver classes</b> D. Y. Song and S. Peeta, USA</p> <p><b>Using a prospect theory approach to studying the car-following model</b> M. Khodakarami, Y. Zhang, B. Wang, M. Shirazi and M. Shirinzadeh Dastgiri, USA</p> <p><b>Enhancing drivers' situation awareness</b> A. Gregoriades and M. Pampaka, Cyprus</p> <p><b>Driving behavior in weaving maneuver: A driving simulator study</b> M. De Blasiis, C. Ferrante, A. Santilli and V. Veraldi, Italy</p> <p><b>7 years of experience with demerit point system in the Czech Republic: Is it effective?</b> P. Zámečník, V. Gabrheľ, V. Kurečková and P. Řezáč, Czech Republic</p> <p><b>Driving related fear – a complex problem with a complex treatment</b> V. Kurečková, A. Zaoral, P. Řezáč and P. Zámečník, Czech Republic</p>	

<b>187</b>	<b>Ergonomics Modeling and Usability Evaluation III</b> Chair: M. Valarezo, USA	EMUSP
8:00-10:00- EUROPE 7	<p><b>Online banner advertising: Measuring effectiveness of banner ad location on memory retention in comparison with user's location preference</b> B. J. Detera, F. Betancor, M. A. Hadi and A. J. Portus, Philippines</p> <p><b>A preliminary study on the effect of background and text color in memory retention when used in presentations</b> A. J. Portus, J. M. Carillo, H. Ang and P. King, Phillipines</p> <p><b>Quantifying visual attention - modeling effects of object size</b> H. Yoshida, A. Furukawa, T. Ikegami, S. Fukuzumi and K. Furuta, Japan</p> <p><b>Usability testing of an online farming investment website</b> A. J. Portus and P. J. Flores, Philippines</p> <p><b>Guidelines and best practices for open source transit trip planning interfaces</b> L. Elliott, M. Valarezo, C. Freeman, M. Scott and M. Moore, USA</p> <p><b>Assessment of community perception towards tourism industry: The case of Bahr Dar City, Ethiopia</b> Y. Tesfay and A. Esseye, Norway/China</p> <p><b>Tool to evaluate the informational ergonomics in critical analysis of graphic designs</b> J. C. Placido da Silva, L. Paschoarelli, J. C. Placido da Silva and V. Friso, Brazil</p>	
<b>188</b>	<b>Human Systems Interaction Applications</b> Co-Chairs: Z. Roja and H. Kalkis, Latvia	SYSI
8:00-10:00 - EUROPE 1	<p><b>The effects of extend compatibility and use context on NFC mobile payment adoption intention</b> P. Liu and S-P. Yi, China</p> <p><b>Evaluation of data transfer speed between USB flash drives and laptop computer</b> U. Chaturvedi, H. Limbasia, A. Shobhawat and H. Ahn, USA</p> <p><b>Diffusion of knowledge information to industry workers</b> T. Godoy, E. Giostri and K. Hatakeyama, Brazil</p> <p><b>The role of vocational training centers on the social and economic lives of the populace in selected states of Nigeria</b> A. Kifordu and E. Tibi, Nigeria</p> <p><b>An MDA based approach for the adaptive user interface specification: Application to assist persons with disabilities</b> H. Taktak, Tunisia</p>	
<b>189</b>	<b>Learning Process and Higher Education</b> Chair: R. Ford, USA	TELS
8:00-10:00 - EUROPE 3	<p><b>How do design blended learning base on authentic learning theory to enhance pre-service teachers' ability in professional practices. The pre-service teacher and instructor point of view</b> N. Kanchanachaya and K. Nitjarunkul, Thailand</p> <p><b>Social sciences and humanities researcher development of a higher educational institute in the context of violent conflict in Thailand's Deep South Region</b> K. Nitjarunkul, Thailand</p> <p><b>An agile mentoring system via adaptive management cockpits</b> S. Pickl and C. Pickl, Germany</p> <p><b>Econometric modeling of the determinants of academic performance of industrial engineering students in a Chilean university</b> H. De la Fuente-Mella and A. Figueroa-Diaz, Chile</p> <p><b>Helping college students to manage stress: A human centered smartphone application for stress relieve</b> S. Almesalm, L. Stephane and G. Boy, Saudi Arabia/USA</p> <p><b>The degree of importance that built environment postgraduate students attaches to specific library services: A South African higher education case study</b> K. Seema and C. Aigbavboa, South Africa</p>	



<p><b>190</b></p>	<p><b>Supporting Sensor and UAV Users</b> Co-Chairs: J. Wright and A. Lemon, USA</p>	<p>HFRUS</p>
<p>8:00-10:00 - OCEANIC 2</p>	<p><b>Model-driven sensor operation assistance for a transport helicopter crew in manned-unmanned teaming missions: Selecting the automation level by machine decision-making</b> C. Ruf and P. Stütz, Germany</p> <p><b>Using natural language to enable mission managers to control multiple heterogeneous UAVs</b> A. Trujillo, J. Puig-Navarro, S. Mehdi and K. McQuarry, USA</p> <p><b>Adaptive interaction criteria for future remotely piloted aircraft</b> J. Alfredson, Sweden</p> <p><b>Human robot interactions: Mechanical safety data for physical contacts</b> A. Fonseca and C. Pires, Portugal</p> <p><b>Confidence-based state estimation: A novel tool for test and evaluation of human-systems</b> A. Marathe, J. McDaniel, S. Gordon and K. McDowell, USA</p> <p><b>Applying human figure modeling to workspace analysis for users of tele-operated systems</b> R. Kozycki, USA</p> <p><b>Challenges implementing army human system integration in the acquisition process dealing with commercial-off-the-shelf systems</b> R. Clark, USA</p>	
<p><b>191</b></p>	<p><b>Cybersecurity Personal Security</b> Co-Chairs: M. Hancock and J. Still, USA</p>	<p>CYBER</p>
<p>8:00-10:00 - OCEANIC 4</p>	<p><b>Multi-cultural empirical study of password strength vs. ergonomic utility</b> M. Hancock, A. Easter, R. Wade, A. Vasquez, J. Kincaid, S. Knight, M. Drayton, T. Hollis, S. Williamson, J. Nida, D. Woolfolk, E. Stapleton, F. Calderon and P. Brown, USA</p> <p><b>Swipe authentication: Exploring over-the-shoulder-attack performance</b> A. Cain, L. Chiu, F. Santiago and J. Still, USA</p> <p><b>“Is this cyber-bullying or not? ”: Intertwining computational detection with human perception (a case study)</b> E. Dillon, J. Macbeth, R. Kowalski, E. Whittaker and J. E. Gilbert, USA</p> <p><b>Increasing software security by using mental models</b> H. Märki, M. Maas, M. Kauer-Franz and M. Oberle, Germany</p> <p><b>The development of a human-IOT trust model</b> M. Kilger, USA</p> <p><b>Household appliances can be exploited to reveal personal and sensitive information</b> D. Tayouri, Israel</p>	

<p><b>192</b></p>	<p><b>Designing for Inclusion in the Information Society I</b> Chair: S. Martinez, Norway</p>	<p>DI</p>
<p>8:00-10:00 - OCEANIC 6</p>	<p><b>Towards universal design criteria for design of wearables</b> V. Tomberg and S. Kelle, Estonia</p> <p><b>Alternative and augmentative communication for people with disabilities and language problems: An eye gaze tracking approach</b> E. Arias, G. Lopez, L. Quesada and L. Guerrero, Costa Rica</p> <p><b>Web accessibility for people with reduced mobility: A case study using eye tracking</b> E. Arias, G. Lopez, L. Quesada and L. Guerrero, Costa Rica</p> <p><b>Using vision simulation spectacles in co-design development of interactive mini-games to promote e-inclusion</b> S. Martinez, B. Smaradottir and K. Scott-Brown, Norway</p> <p><b>Virtual accessibility guide in Brazil</b> R. Cohen and C. R. Duarte, Brazil</p> <p><b>Naturalness compliant method for web accessibility</b> M. Ribeiro and A. J. Gomes, Portugal</p> <p><b>A multi-method usability evaluation of the Facebook social network involving blind users</b> J. Brinkley and N. Tabrizi, USA</p>	
<p><b>193</b></p>	<p><b>Business and Leadership</b> Co-Chairs: J. Celona, USA, and U. Asgher, Pakistan</p>	<p>HFML</p>
<p>8:00-10:00 - OCEANIC 8</p>	<p><b>Civil buildings inventory: Management approach</b> B. Mateus, Colombia</p> <p><b>Research into the effect of monetary supply on effectiveness of China's monetary policy based on macro-data from 1995 to 2013</b> L. Du, China</p> <p><b>Multicultural employees: A framework for understanding how they adapt to organizational structure (a comparative study of Canadian and Russian enterprises based in China)</b> D. Pedyash, V. Nosova, R. Akhmetzianova, M. Cooper, C. Miller and C. Shi, China/USA/Canada</p> <p><b>Human factor model for classification of aviation safety auditors</b> S. Ayyakannu, India</p> <p><b>Analytical study of environment and cultural effects and imposed challenges for female employees in developing countries</b> T. Ali and U. Asgher, Pakistan</p>	
<p><b>194</b></p>	<p><b>Cognitive Computing III</b> Co-Chairs: M. Monaro, Italy, and N. Masood, Pakistan</p>	<p>CC</p>
<p>8:00-10:00 - ASIA 4</p>	<p><b>Identity verification using a kinematic memory detection technique</b> M. Monaro, L. Gamberini and G. Sartori, Italy</p> <p><b>Emotiv based low-cost brain computer interfaces: A survey</b> N. Masood and H. Farooq, Pakistan</p> <p><b>Smart health data analysis platform on the cloud</b> B. Amaba, A. Sargolzaei and S. Sargolzaei, USA</p> <p><b>Risk assessment in a quality control team in a slaughter house at the city of Açailândia, Maranhão (Brazil)</b> C. Lima, C. Melo and A. Junior, Brazil</p>	
<p>10:00 - 10:30 Refreshments will be provided in Atlantic Hall</p>		

<p><b>195</b></p>	<p><b>Evaluation of Services: Methods, Tools and Approaches to Enhance Quality and Operational Sustainability of Services</b> Co-Chairs: E. Lee, Norway, and W. Ganz, Germany</p>	<p>HSSE</p>
<p>10:30-12:30 - AUSTRALIA 2</p>	<p>Describing service performances: What are the challenges? E. Lee, Norway A field evaluation: The effects of rear-camera-on mode for texting while walking X. Kong, S. Xiong, S. Xiong, Z. Zhu and G. Long, USA A method to detect problems in information display design of fast food restaurants based on customers' eye movement data H. Aoki and S. Suzuki, Japan An assessment of the occupational noise exposure of toll tellers along the North Luzon Expressway M. J. Fider, M. A. Naguit, M. J. R. Orata and B. Custodio, Philippines An integrated approach for measuring and managing quality of smart senior care services J. Neuhüttler, W. Ganz and J. Liu, Germany/China The impact of reviews and average rating on hotel-booking intention: A qualitative study L. Buus, C. Jensen, A. Mette Jessen, L. Jørgensen, J. Laursen and L. B. Larsen, Denmark City of things: Turning smart cities into hubs for IoT innovation D. Meersman, Belgium</p>	
<p><b>196</b></p>	<p><b>Design for Smart Environments and Well Living</b> Co-Chairs: N. Kang and M. Toshiki, Japan</p>	<p>APD</p>
<p>10:30-12:30 - ASIA 1</p>	<p>Relationship between Kansei value and recognition on abstract metaphorical beverage packages Y. Huang and N. Kang, Japan Research on lift assistance seat for elderly people - focusing on analysis of motion capture and EMG T. Matsuo, K. Yamada, W. Yang and A. Ahrary, Japan Lighting the way to independent living: Preventative methods for senior health inspired by daylight L. Czunyi and D. Craib, Canada The awareness of human's sedentary behavior in the workplace and product design guidelines D. Shin and Y. Huang, USA Phenomenology and emotional design: The conceptual synergy between architecture and design for urban furniture R. de Paiva, Brazil Emotional engineering in an age of material digitalization S. Fukuda, Japan</p>	
<p><b>197</b></p>	<p><b>Theoretical Advances in Cognitive and Neuroergonomics II</b> Co-Chairs: M. McNeese and J. Reep, USA</p>	<p>CN</p>
<p>10:30-12:30 - ASIA 3</p>	<p>Simulating team cognition in complex systems: Practical considerations for researchers M. McNeese, N. McNeese, T. Endsley, J. Reep and P. Forster, USA Fatigue and theories of resources: The energetic metaphor of the mind functioning might be reconsidered J. Cañas, Spain A new method for the objective registration of mental workload T. Radüntz, Germany Further enhancing the synthetic soldier performance characteristics to existing entity simulations J. McDonnell, M. Diego, C. Burford, A. Animashaun, S. Henry, D. Franceschini, D. Reed and T. Beauchat, USA Human factors inspired deep memory architecture for efficient storage and intelligent data processing A. James and O. Krestinskaya, Kazakhstan Ergonomics cognitive, neuroscience and graphic design: Approaches and interactions S. Mallin, Brazil Visual semiotic study of physical design parameters of urban node S. Kolay, M. Ghosh and S. Kolay, India</p>	

<b>198</b>	<b>Assistive Technology in Design</b> Chair: F. Carvalho, Portugal	ED
10:30-12:30 - ASIA 5	<p><b>Proaid E. low cost neurological wheelchair design</b> G. Sevilla, A. Valencia-Escobar and J. Velasquez, Colombia</p> <p><b>Ubiquitous notification mechanism to provide user awareness</b> G. Lopez and L. Guerrero, Costa Rica</p> <p><b>Assistive technology for people with low vision: Equipment for accessibility of visual information</b> S. Oliveira, J. Bozo and M. L. Okimoto, Brazil</p> <p><b>Design of a tactile map an assistive product for the visually impaired</b> S. Oliveira, K. Suemitsu and M. L. Okimoto, Brazil</p> <p><b>Methodology of design for a developing a new technique of wheelchair propulsion base on cervical injury capabilities</b> N. Coral, Mexico</p> <p><b>The implication of 'home' for care design</b> Y. Jiang and H. Dong, China</p> <p><b>Reaching area for supermarket cashiers: Enlarged workspace based on dynamic interaction with items</b> A. Sicklinger, A. Ranavolo, A. Silveti and F. Draicchio, Egypt/Italy</p>	
<b>199</b>	<b>Human Factors and Ergonomics in Environmental Design</b> Co-Chairs: V. Duffy and N. Lightner, USA	HC
10:30-12:30 - OCEANIC 1	<p><b>Ergonomic design of bathrooms for people with cerebral palsy in the Philippines</b> Q. A. Alberto, B. D. Atanacio, C. A. Cucueco, A. G. Mercado and B. Custodio, Philippines</p> <p><b>The place of health design for health promoter: The design process focus in humanization at Santa Casa's Hospital Montes Claros - Brazil</b> J. Zumba, Brazil</p> <p><b>Supporting phobia treatment with virtual reality systematic desensitization using Oculus Rift</b> J. Monge, G. Lopez and L. Guerrero, Costa Rica</p> <p><b>Intelligent nano-worlds: A new ICT based tool for mental health care of children living under social vulnerability</b> F. Pesántez-Avilés, V. Cevallos-León Wong, V. Robles-Bykbaev, A. Pacurucu-Pacurucu, C. Tapia-Jaya, I. San Andrés-Becerra, E. Borck-Vintimilla and P. Ingavélez-Guerra, Ecuador</p> <p><b>Music and sleeping quality in menopause</b> Z. -X. Chen, C.-C. Chen and C. -L. Chang, Taiwan</p> <p><b>Relationship between environment and health: Social representation of inpatient room</b> F. Andrade, Brazil</p> <p><b>Visual comfort in intensive care unit: analysis of parameters</b> F. Andrade, R. Brito, W. Ferrer and V. Barbosa, Brazil</p>	
<b>200</b>	<b>Integrated Design of Flexible Production Systems</b> Chair: T. Alexander, Germany	MFG
10:30-12:30 - OCEANIC 3	<p><b>Age-differentiated analysis on predicting the learning time of sensorimotor tasks</b> F. Kühlenbaeumer, S. Duckwitz and C. Schlick, Germany</p> <p><b>Employee data model for flexible and intelligent assistance systems in smart factories</b> A. Arndt and R. Anderl, Germany</p> <p><b>Dynamic, adaptive worker allocation for the integration of human factors in cyber-physical production systems</b> D. Strang, N. Galaske and R. Anderl, Germany</p> <p><b>Systematic dimensioning of personnel flexibility in manufacturing</b> M. Hämmerle, W. Bauer, D. Spath and S. Gerlach, Germany</p> <p><b>Adaptive worker assistance systems based on individualized profile data model</b> N. Galaske and R. Anderl, Germany</p> <p><b>A competence based approach to support the working force within assembly lines</b> C. Dollinger and G. Reinhart, Germany</p>	

<b>201</b>	<b>Safety and Risk Management II</b> Chair: E. Irwin, USA	<b>SMHF</b>
10:30-12:30 - OCEANIC 5	<p><b>Assessment of health risks for rescue workers during person transportation with rescue devices in corridors and stairways</b> S. Kwee-Meier, K. Mueller, A. Mertens and C. Schlick, Germany</p> <p><b>Analytical hierarchy process-based methodology for selection of safety parameters in manufacturing industry</b> S. Singh, L. Singh and M. Kaur, India</p> <p><b>Beyond the pleasures of music: Are music teachers at risk?</b> R. Melo, F. Carvalho and A. Delgado, Portugal</p> <p><b>Evaluation of psychosocial risks in the maintenance of 502 squadron - cabin operator</b> C. Sequeira and M. C. Neves, Portugal</p> <p><b>Safety and quality of maternal and neonatal pathway: A pilot study on the childbirth checklist in 9 Italian hospitals</b> G. Dagliana, S. Albolino, M. Tanzini, F. Ranzani and M. Meda, Italy</p> <p><b>Assessment of work-related risk factors of manual harvesting tasks of agriculture farmers in Rajasthan</b> R. Jain, M. L. Meena, G. S. Dangayach and A. K. Bhardwaj, India</p>	
<b>202</b>	<b>Physical Ergonomics and Human Factors</b> Co-Chairs: C. Braz, Canada, and G. Musso, Italy	<b>PEHF</b>
10:30-12:30 - OCEANIC 7	<p><b>Innovation of modern architecture – Expressionist tendencies</b> N. Juzwa, A. Gil and K. Ujma-Wasowicz, Poland</p> <p><b>Portable on Orbit Printer 3D: 1st European additive manufacturing machine on the International Space Station</b> G. Musso, G. Lentini, L. Enrietti, C. Volpe, E. Ambrosio, M. Lorusso, G. Mascetti and G. Valentini, Italy</p> <p><b>Color on glossolalia: Much ado about blue</b> L. Ferrão, Portugal</p> <p><b>A novel water rescue system design with UAV based on vision sensing</b> X. Cheng, S. Xie, W. Shao, Z. Hu and H. Li, China</p> <p><b>GlanceID: A usable, single, and yet strong optical authentication method</b> C. Braz and A. Seffah, Canada</p> <p><b>Climate change and water vulnerability: Linkage with gender inequalities</b> G. Punhani, India</p> <p><b>“Care from the heart” helps the inpatient recover soon</b> H. -L. Zhu, China</p>	
<b>203</b>	<b>Behavioral Ergonomics</b> Co-Chairs: W. Zhang and H. Toyoda, USA	<b>PEHF</b>
10:30-12:30 - EUROPE 6	<p><b>The effect of speaking aloud on prospective memory performance in an interrupted situation</b> A. Sato, Japan</p> <p><b>Does instructional video advertising influence behavioral intention? Comparative study between Hong Kong and Malaysia</b> E. Y. L. Au, P.-L. Teh, R. Goonetilleke, P. Ahmed, S.-N. Cheong and W. -J. Yap, Malaysia/Hong Kong/Australia</p> <p><b>Analyzing driving behavior change as influenced by visual feedback in following distance</b> H. Toyoda, T. Sayer and J. Domeyer, USA</p> <p><b>Electromyography (EMG) as a tool for computerized psychomotor test validation</b> W. Zhang, M. Swangnetr, P. Bloomfield and D. Kaber, USA/Thailand</p> <p><b>Performing human systems integration evaluations in source selection of army programs</b> R. Kozycki and C. Burns, USA</p> <p><b>Evaluation of psychosocial risks: Mental workload associated with multiple tasks</b> A. Gonzalez, J. L. Barreras and C. Lopez, Mexico</p> <p><b>Proactive behavior orientation of a subject as a process of investing in career capital in the world of “boundaryless careers”</b> A. Cybal-Michalska, Poland</p>	

<b>204</b>	<b>Education and Hazard Perception</b> Co-Chairs: K. Plant and K. Revell, UK	RR
10:30-12:30 - EUROPE 4	Using localization tasks for hazard perception: A comparison of different performance indicators J. Hilz, S. Malone and R. Brünken, Germany Scoring verbal and motoric performance in hazard perception tasks – an eye tracking study S. Malone, J. Hilz and R. Brünken, Germany Development and trial of an item set for testing traffic perception and hazard prevention A. Dreßler, B. Bredow, L. Rößger, M. Rüdell and D. Sturzbecher, Germany Driver distraction and advanced vehicle assistive systems (ADAS): Investigating effects on driver behavior D. Cades, C. Crump, B. Lester and D. Young, USA Education and training of problematic drivers and drivers of the integrated emergency system P. Řezáč, V. Kurečková, P. Zámečník and A. Zaoral, Czech Republic	
<b>205</b>	<b>Road and Rail Infrastructure</b> Chair: A. Roberts, UK	RR
10:30-12:30 - EUROPE 8	Generating a lane-specific transportation network based on floating-car data R. Neuhold, M. Haberl, M. Fellendorf and G. Pucher, Austria Glance legibility performance of the clearview typeface system and highway standard alphabets W. -Y. Eie and M. Pietrucha, USA Construction of PCT girder bridge using an overhead movable scaffolding system (MSS) C. Chuntavan, N. Nuttayasakul, M. Bae and H. Aiwu, Thailand Design of an ergonomic Philippine public utility vehicle stop J. J. Agbayani, M. E. Kabigting, J. K. Uy and B. Custodio, Philippines Main problem in developing Bayesian network for predicting flexible pavement deterioration H. Suprayitno and R. Soemitro, Indonesia Influence of work zone traffic control devices on driver behavior: A synthesis of the literature A. Debnath, R. Blackman and N. Haworth, Australia	
<b>206</b>	<b>Medical Simulation: Filling the Training Gap</b> Chair: T. Sotomayor, USA	HFSIM
10:30-12:30 - EUROPE 2	Searching for cognitive ergonomics in medical simulation R. Smith and A. Tanaka, USA Integrating emerging technologies into healthcare training systems B. Goldiez, USA Maximizing the learning value of medical simulations through evidence-based instructional design A. Andrews and J. Cendan, USA Finding the gaps of open architecture digital interactive virtual human models A. Linde and K. Kunkler, USA Fidelity gaps in simulated anatomy and simulated tissues introduce negative training J. Norfleet, USA Group-based mindfulness training via virtual world telehealth V. Rice, B. Liu and G. Boykin, USA	

<p><b>207</b></p>	<p><b>Ergonomics Modeling and Usability Evaluation IV</b> Co-Chairs: S. Y. Ri and Y. Cho, Korea</p>	<p>EMUSP</p>
<p>10:30-12:30 - EUROPE 5</p>	<p>Kind TV: Interactive and personalized television news and credibility S. Y. Ri and Y. Cho, Korea</p> <p>Effect of position: An ergonomics evaluation of police’s wearable equipment A. Ilori, Y. Li, V. Mahesh and B. Craig, USA</p> <p>Relationship between the complexity of system functions and amount of displayed information on a mobile device with touch display S. Ito, M. Sakata, M. Koga, D. Iizawa and M. Nakanishi, Japan</p> <p>Methodology of digital firearm ergonomic design M. Bures, T. Gorner, A. Miller and M. Kaba, Czech Republic</p> <p>Measurement of efficiency and effectiveness of a camera for extreme sports V. Calle Brito, M. Villa-Fajardo, L. Mercado Colin and M. Soares, Ecuador/México/Brazil</p> <p>3D anthropometric survey for mask and respirator of young Chinese males X. Zheng, S. Ding, C. Liang and C. Zhang, China</p> <p>Evaluating the functionality and usability of RNA secondary structure visualization tools using feature evaluation and adapted heuristics A. Rikli, G. Badr and A. Najjar, Saudi Arabia</p>	
<p><b>208</b></p>	<p><b>Applying Human Factors: Building Better Processes, Procedures and Organizations in Energy</b> Chair: P. Fechtelkötter, USA</p>	<p>ENERGY</p>
<p>10:30-12:30 - EUROPE 7</p>	<p>Developing a human factors engineering process for control room upgrades H. Koskinen, J. Laarni, L. Salo and P. Savioja, Finland</p> <p>Defining expertise in the electric grid control room S. Adams and F. Hannigan, USA</p> <p>Fukushima Daiichi nuclear accident: A matter of unchallenged basic assumptions B. Skarbo, M. Haage, K. Heppell Masys, S. Kunito, T. Ihara, H. Kuivalainen, C. Ryser, S. Haber, P. Chaikiat and L. Macchi, IAEA/Canada/Japan/Finland/Switzerland/USA/Sweden/Italy</p> <p>Measurement sufficiency vs. completeness: Integrating safety cases into verification and validation in nuclear control room modernization R. Boring and N. Lau, USA</p> <p>Human factors in non-destructive examination in the nuclear industry A. D’Agostino, C. Nove, C. Franklin and S. Morrow, USA</p> <p>A human-centered design process for nuclear power plant human-system interface design C. Kovesdi, J. Joe and R. Boring, USA</p>	
<p><b>209</b></p>	<p><b>Panel: Spin In and Spin Out? How Sport Can Learn From Safety Research and Vice Versa</b> Co-Chairs: P. Salmon, Australia, N. Stanton, UK, G. Walker, Scotland, C. Dallat, Australia, A.-C. Macquet, France, and D. Lacey, Australia</p>	<p>SOR</p>
	<p>10:30-12:30 - EUROPE 1</p>	

<p><b>210</b></p>	<p><b>External Business Factors and Change Issues</b> Co-Chairs: S. Rostkowski, USA, and D. Plewe, Singapore</p>	<p>HFBMS</p>
<p>10:30-12:30 - EUROPE 3</p>	<p><b>Analysis of determinants of economic growth for the countries members of the OECD using econometric modeling and stochastic frontier</b> H. De la Fuente-Mella, A. M. Vallina-Hernández and R. Solis, Chile</p> <p><b>Hierarchical bullying leadership in the workplace</b> S. Rostkowski, USA</p> <p><b>Making contracts more transparent: A visual simulation for start-up financing and crowd-funding</b> D. Plewe and H. Lee, Singapore</p> <p><b>The effect of social rewards and perceived effectiveness of e-commerce institutional mechanisms on intention to group buying</b> M. Luo and S. Chea, Taiwan</p> <p><b>Tackling barriers to the inclusion of disabled people in the European workplace through ergonomics</b> L. Moody, J. Saunders, N. Rebernik, M. Leber, A. Čurin, M. Wójcik-Augustyniak and M. Szajczyk, UK</p> <p><b>A behavioral anatomy of housing wealth effect</b> H. Bao, UK</p> <p><b>Green economy as a model of modern technological and social transformation</b> M. Khassenova, M. Tulegenova and B. Mansurova, Kazakhstan</p>	
<p><b>211</b></p>	<p><b>An Exploration of Real-World Implications for Human-Robot Interaction</b> Co-Chairs: L. Reinerman-Jones, D. Barber and K. Neville, USA</p>	<p>HFRUS</p>
<p>10:30-12:30 - OCEANIC 2</p>	<p><b>Droning on about drones - acceptance of and perceived barriers to drones in civil usage contexts</b> C. Lidynia, R. Philipsen and M. Ziefle, Germany</p> <p><b>Factors affecting performance of human-automation teams</b> A. Baker and J. Keebler, USA</p> <p><b>A neurophysiological examination of multi-robot control during NASA's extreme events mission operations project</b> J. Blich, USA</p> <p><b>A comparison of trust measures in human robot interaction scenarios</b> T. Kessler, C. Larios, V. Yerdon, T. Walker and P. Hancock, USA</p> <p><b>Human-robot interaction: Proximity and speed - slowly back away from the robot!</b> K. MacArthur, K. Stowers and P. Hancock, USA</p> <p><b>Human factors issues for the design of a cobotic system</b> J.-M. Salotti, T. Moulières, J.-F. Thibault and B. Claverie, France</p> <p><b>A natural interaction interface for UAVs using intuitive gesture recognition</b> M. Chandarana, A. Trujillo, K. Shimada and D. Allen, USA</p>	
<p><b>212</b></p>	<p><b>Cybersecurity Tools</b> Co-Chairs: E. Whitaker and D. Nicholson, USA</p>	<p>CYBER</p>
<p>10:30-12:30 - OCEANIC 4</p>	<p><b>Applying systems thinking to the crime of the century: A critical review of the identity ecosystem and opportunities for human factors research</b> D. Lacey, C. Cross, P. Salmon and G. Read, Australia</p> <p><b>Cyber epidemics: Modeling attacker-defender dynamics in critical infrastructure systems</b> E. Canzani and S. Pickl, Germany</p> <p><b>Intelligent agent representations of malware: Analysis to prepare for future cyber threats</b> E. Whitaker and S. Lee-Urban, USA</p> <p><b>Two complementary network modeling and simulation approaches to aid in understanding advanced cyber threats</b> S. Lee-Urban, E. Whitaker, M. Riley and E. Trehwhitt, USA</p> <p><b>Malware detection based on new implementations of the Moody-Darken Single-Layer Perceptron Architecture: When the data speak, are we listening?</b> B. Drake, T. Huang and C. Cistola, USA</p> <p><b>Individualized training for cyber workforce development</b> L. Massey and D. Nicholson, USA</p>	



<p><b>213</b></p>	<p><b>Designing for Inclusion in the Information Society II</b> Chair: D. Lussier-Desrochers, Canada</p>	<p>DI</p>
<p>10:30-12:30 - OCEANIC 6</p>	<p><b>Multimedia interfaces for people visually impaired</b> A. Dingli and I. Mercieca, Malta</p> <p><b>Improving deaf people accessibility and communication through automatic sign language recognition using novel technologies</b> L. Quesada, G. Lopez and L. Guerrero, Costa Rica</p> <p><b>Analysis of interaction patterns in the use of high-tech prompting devices by people with intellectual disabilities</b> J. Roux, D. Lussier-Desrochers, Y. Lachapelle, B. Bouchard and J. Bouchard, Canada</p> <p><b>Accessibility of MOOCS for blind people in developing non-English speaking countries</b> M. Ferati, N. Mripa and R. Bunjaku, Norway/Kosovo</p> <p><b>An eye tracking experiment on strategies to minimize the redundancy and split attention effects in scientific diagrams</b> A. Majooni, M. Masood and A. Akhavan, Malaysia</p> <p><b>Evaluation of health services received by people with autism spectrum disorder by means of an adapted iPad questionnaire</b> D. Lussier-Desrochers, N. Milette, V. Godin-Tremblay, J. Roux and Y. Lachapelle, Canada</p>	
<p><b>214</b></p>	<p><b>Panel/Workshop: The Human Performance Envelope – A Paradigm Shift in Human Factors?</b> Co-Chairs: T. Edwards, USA, and B. Kirwan, France</p>	<p>AVI</p>
<p>10:30-12:30 - OCEANIC 8</p>	<p>A workshop that aims to gain feedback on the concept of a Human Performance Envelope – a model that considers co-occurring factors, such as workload, fatigue, stress, and the cumulative impact on human performance.</p>	
<p><b>215</b></p>	<p><b>Contemporary Defense Applications of Social Science</b> Chair: S. Schatz, USA</p>	<p>CCDM</p>
<p>10:30-12:30 - ASIA 2</p>	<p><b>Considering culture in contemporary military interventions: Simulating the effects of actions of influence on a civilian population</b> J. -Y. Bergier and C. Faucher, France</p> <p><b>Assessing threat in the gray zone</b> L. Fenstermacher and S. Shellman, USA</p> <p><b>Development of a competency model for civil-military teaming</b> K. Ross, M. Wisecarver, C. Thornson, D. Peluso and M. Key-Roberts, USA</p> <p><b>A planning tool for interaction with influential actors based on para-consistent logic</b> P. Svenmarck, E. Sjöberg and C. Fagot, Sweden</p> <p><b>The effects of demographic and sociocultural variables on 3rd year ROTC cadets Officer/Evaluator rating scores</b> D. Scribner, USA</p>	
<p>Lunch Break (12:30-13:30) - Enjoy lunch at the restaurant of your choice</p>		

<p><b>216</b></p>	<p><b>Centrality of Human-Side in Services: The Interface of Disruptive Technological Innovations and Consumer Face</b> Chair: R. Romano, Brazil</p>	<p>HSSE</p>
<p>13:30-15:30 - AUSTRALIA 2</p>	<p>Value co-creation with customers: What affects the effective outcome? B. Pathak and Y. L. Tan, UK</p> <p>Reflecting human values in service design R. Mahamuni, S. Sharma, P. Khambete and R. Mokashi-Punekar, India</p> <p>From the university to smart cities – how engineers can construct better cities in BRIC’s countries: A real case from Smart Campus FACENS L. Pinto and R. Romano, Brazil</p> <p>How a fab lab can drive ordinary people to become engineering enthusiasts and help to make a better society A. Pila, Brazil</p> <p>Dilligrocery: Future of E-commerce K. Periyathambi and P. Keshri, India</p>	
<p><b>217</b></p>	<p><b>Emotional Experience</b> Chair: A. G. Ho, Hong Kong</p>	<p>APD</p>
<p>13:30-15:30 - ASIA 1</p>	<p>Affective and pleasurable values that ergonomics provides to the product design inspired and produced from natural Amazon resources S. Paixão-Barradas, K. Mazarelo and M. Sousa, Brazil/France</p> <p>Affective response to photographs of natural landscapes based on OCEAN model A. L. Hui Ling, V. L. Sue-Wei and S. L. See, Singapore</p> <p>Using biometric data to assess affective response to media experiences C. Jensen, A. Jessen, L. Jørgensen, J. Laursen, L. Larsen and J. Wieland, Denmark</p> <p>Attribution of meanings to eco-materials through the expressive-sensory experience S. Camplone, Italy</p> <p>Tackling design fixation of cultural product designers through homeomorphism E. C. K. Hung, Hong Kong</p> <p>Accessing the function of emotion in appreciated user experience design A. Ho, Hong Kong</p> <p>The sound of situation and how it makes us “tick” differently: Paving the way for user-aware audio engines in interactive media H. -P. Gasselseder, Denmark</p>	
<p><b>218</b></p>	<p><b>Sociocultural, Behavioral Modeling for Defense Applications: Theory and Practice</b> Co-Chairs: G.-R. Williams and M. Bernard, UK/USA</p>	<p>CCDM</p>
<p>13:30-15:30 - ASIA 2</p>	<p>The conundrum of verification and validation of social science-based models redux H. Hahn, USA</p> <p>Socio-cultural modeling and dynamic decision making O. Desfriches Doria, P. Svenmarck and C. Fagot, France/Sweden</p> <p>Examining the ideological, sociopolitical, and contextual factors underlying the appeal of extremism G. -R. Williams, M. Bernard and R. Jeffers, UK/USA</p> <p>Using computational modeling to examine shifts towards extremist behaviors in European diaspora communities A. Naugle and M. Bernard, USA</p> <p>A statistical approach to the subnational geolocation of event data J. Lautenschlager, J. Starz and I. Warfield, USA</p> <p>Tweet sentiment analysis with pronoun choice reveals online community dynamics in response to crisis events S. Shaikh, L. Feldman, E. Barach and Y. Marzouki, USA</p>	

<b>219</b>	<b>Performance Assessment</b> Chair: R. Abbott, USA	CN
13:30-15:30 - ASIA 3	<p><b>Measuring the after-effects of disruption on task performance</b> R. Abbott, E. Moyer and C. Forsythe, USA</p> <p><b>Complexity and reliability as basic quantitative characteristics of computer based tasks</b> I. Bedny, G. Bedny and W. Karwowski, USA</p> <p><b>Windshield frame shape and awareness of the external world while driving an automobile</b> Y. Takeda, K. Iwase, T. Hara, A. Kishi, K. Nishikawa, R. Veale, M. Yoshida, T. Isa and T. Nouzawa, Japan</p> <p><b>Study of effects of blue enriched white light on night performance</b> K. T. D. Chua, A. L. Lim, S. C. Yeo and J. Gooley, Singapore</p> <p><b>Managing mediated interruptions in manufacturing: Selected strategies used for coping with cognitive load</b> J. Lindblom and J. Gündert, Sweden</p> <p><b>The design features of pictorial face scale for facilitating exertion perception</b> D. -H. Huang, W.-K. Chiou, B.-H. Chen and Y. -L. Chen, Taiwan</p> <p><b>Design an interactive game app of horticultural therapy for older adults</b> P. -Y. Lai and C. -H. Chen, Taiwan</p>	
<b>220</b>	<b>Virtual Reality and Simulation</b> Chair: V. Duffy, USA	ADHMS/ HFSIM
13:30-15:30 - ASIA 4	<p><b>FCA ergonomics proactive approach in developing new cars: Virtual simulations and physical validation</b> S. Spada, D. Germanà, F. Sessa and L. Ghibauda, Italy</p> <p><b>Virtual human motion model design and ergonomics analysis in maintenance simulation</b> F. -Y. Yu, Q. Xue and M-X. Liu, China</p> <p><b>Comparison of effective field of view for vehicle operators in a virtual metropolitan environment</b> D. Carruth, T. Garrison, M. King, J. Jinkerson, E. Irby and R. Sween, USA</p> <p><b>From virtual reality to neutral buoyancy – methodologies for analyzing walking pattern on the Moon and Mars</b> I. Schlacht, A. Del Mastro and S. Nazir, Italy/Norway</p> <p><b>The argument for simulation-based training in dietetic clinical education: A review of the research</b> F. Basiri, USA</p> <p><b>The working posture controller – automated assessment and optimization of the working posture during the process</b> T. D. Nguyen, C. Pilz and J. Krüger, Germany</p>	
<b>221</b>	<b>Innovative Design II</b> Chair: S. Steinmaßl, Germany	ED
13:30-15:30 - ASIA 5	<p><b>Innovative approaches and verification in the design of flower beds to support horticultural therapy classes</b> M. -C. Zheng, Taiwan</p> <p><b>A method for measuring the weight of body segment based on human model and body pressure distribution</b> F. Fang, L. Shen, Y. Chen and Y. Zhu, China</p> <p><b>Design of an innovative device to enhance the stability of sit-to-stand based on activating blood circulation</b> C.-T. Tsai and F. G. Wu, Taiwan</p> <p><b>Design of an innovative device to enhance the stability of supine-to-stand based on activating blood circulation</b> X. -A. Chen, F. G. Wu and H. -H. Lai, Taiwan</p> <p><b>Ergonomic challenges in the design of a personal cooling equipment for ultra-deep mining</b> V. Ngô, S. Nadeau, J. Mackowiak and S. Hallé, France/Canada</p> <p><b>Innovative wearable design for improve unloading knee brace</b> H. C. Kuo and F. -G. Wu, Taiwan</p> <p><b>Testing and evaluation of a new multitrack electric bicycle a comparative study</b> S. Steinmaßl and M. Lienkamp, Germany</p>	

<b>222</b>	<b>Human Factors and Ergonomics in Healthcare Communications and Logistics</b> Co-Chairs: H. Fuller and K. Maddox, USA	<b>HC</b>
13:30-15:30 - OCEANIC 1	<p>Usability assessment of an electronic health record: Lessons learned and ethical considerations H. Fuller, K. Maddox and N. Lightner, USA</p> <p>Demographics, military status, and physical health as indicators of personal resilience among U. S. active duty service members and veterans V. Rice and B. Liu, USA</p> <p>Language sample analysis framework utilizing the Natural Language Toolkit and Facebook A. Abualsamid and C. Hughes, USA</p> <p>Improving information design of end of visit summary for primary care patients M. Clarke, L. Steege, J. Moore, J. Belden, R. Koopman, S. Canfield and M. S. Kim, USA</p> <p>Geo-referencing in logistics transplant W. Oliveira, C. Silva, A. C. Neto and C. Oliveira, Brazil</p> <p>Extracting name of injury agent using semantic data mining methods H.-Y. Huang, G. Nanda, M. Lehto and K. Vallmuur, USA/Australia</p>	
<b>223</b>	<b>Users, Tasks and Tools in the Maritime Domain</b> Chair: P. Di Bucchianico, Italy	<b>MAR</b>
13:30-15:30 - OCEANIC 3	<p>Prediction of human postural response in shipboard environments N. Bourgeois and R. Langlois, Canada</p> <p>Maritime and port activity analysis tool M. Safa and B. Craig, USA</p> <p>Boat camping sailing yacht: A case study of conscious yacht design M. Di Nicolantonio, J. Lagatta, A. Marano and A. Vallicelli, Italy</p> <p>Design for inclusion in the field of sailing yachts. Design for all guidelines for small sailing boats J. Lagatta, A. Vallicelli, M. Di Nicolantonio, and A. Marano, Italy</p> <p>Correlation between heat load and design alternatives for human comfort in compact cabins A. Ali, N. Nasr and A. Elsafty, Kuwait</p>	
<b>224</b>	<b>Human Aspects of Advanced Manufacturing</b> Chair: E. Altendorf, Germany	<b>MFG</b>
13:30-15:30 - OCEANIC 5	<p>The role of human motivation in quality inspection of production processes A. Kujawińska, K. Vogt and A. Hamrol, Poland</p> <p>Improving and embedding project management practices in organizations – the human perspective A. G. Fernandes and M. Araújo, Portugal</p> <p>Group support systems features and their contributions to technology strategy decision-making: A review and analysis C. Santos, M. Araújo and N. Correia, Portugal</p> <p>Projecting efficacy and use of business simulation games in the production domain using technology acceptance models P. Brauner, R. Philipsen and M. Ziefle, Germany</p> <p>The dimensions of seaports management in a static systemic approach: A case study for Poland J. Rymaniak, Poland</p> <p>An ergonomics study to determine the correlation of social jetlag, and individual chronotype on the health impairing activities of industrial engineering students in University of the Philippines Diliman C. Encarnacion, III, J. Macabanti, J. V. Agapito and A. J. Portus, Philippines</p>	

<b>225</b>	<b>Human Factors and Safety I</b> Co-Chairs: D. Ramos, Portugal, and B. Custodio, Philippines	<b>SMHF</b>
13:30-15:30 - EUROPE 6	<p><b>Ergonomics design in secure E-healthcare information system</b> D. Davcev and G. Jakimovski, Macedonia</p> <p><b>Ergonomic work analysis of a pathological anatomy service in a hospital</b> F. Carvalho, R. Melo and V. Costa, Portugal</p> <p><b>Defining the angles ranges in ergonomics assessment using 3D cameras and surface EMG</b> J. Moar, D. Ramos and P. Arezes, Portugal</p> <p><b>Application of a TRIZ methodology for ergonomic problem solving in a continuous improvement environment</b> J. Alves, H. Navas and I. L. Nunes, Portugal</p> <p><b>Ergonomic assessment of assembly tasks in a Mexican automotive industry</b> L. Cuautle, J. Juárez-Peñuela and L. Uribe-Pacheco, Mexico</p> <p><b>Work-related musculoskeletal symptoms among small scale gold miners and extraction workers in the Philippines</b> B. Custodio, A. Matias and V. Soriano, Philippines</p>	
<b>226</b>	<b>Ergonomics Strategy</b> Co-Chairs: S. Irvin, USA, and B. Elix, Australia	<b>PEHF</b>
13:30-15:30 - EUROPE 4	<p><b>How we can create an ergonomic culture in a company: An application in Turkey</b> G. Akalp and A. Ozok, Turkey</p> <p><b>Migrating real-world stimulus to controlled virtual reality environments: Lessons learned from transitioning medical diagnostic assessments to the virtual realm</b> A. Wollocko, M. Jenkins, S. Irvin and M. Farry, USA</p> <p><b>Including ergonomics aspects into mixed-model assembly line balancing problem</b> F. Sgarbossa, D. Battini, A. Persona and V. Visentin, Italy</p> <p><b>Promoting worker adaptation in complex sociotechnical systems with integrated system design: Case study of team design</b> B. Elix and N. Naikar, Australia</p> <p><b>Study on the use of expanding the scope of near-miss data in the work safety activities - Based on the pattern analysis of the characteristics of the methods and field activities related to work safety</b> K. Takahashi and Y. Okada, Japan</p> <p><b>Comparing psychosocial factors associated with job stress among administrative staff and cleaners</b> R. Kumar, T. Töres and T. Markeset, India</p> <p><b>Ergonomics &amp; human factors</b> C. Bellizzi, USA</p>	
<b>227</b>	<b>Biomechanics</b> Co-Chairs: J. Doan, Canada, and D. Reis, Brazil	<b>PEHF</b>
13:30-15:30 - EUROPE 8	<p><b>High musculoskeletal discomfort associated with distorted affordances for safe manual materials handling</b> J. Doan, D. McCubbing and H. Bandaralage, Canada</p> <p><b>Postural analysis and assessment of perceived musculoskeletal pain of cleaners in the Philippines</b> J. Tantuco, I. V. Mirasol, T. A. Oleta and B. Custodio, Philippines</p> <p><b>The experimental research on joint range of motion</b> H. Hu, J. Du, C. Zhao, X. Hu, X. Zhang, L. Ran, H. Wu and H. Wang, China</p> <p><b>Upper limbs exposure to biomechanical overload: Occupational risk assessment in a poultry slaughterhouse</b> D. Reis, A. Moro, E. Ramos and P. Reis, Brazil</p> <p><b>Ergonomics intervention with semi-quantitative analysis of musculoskeletal disorders in an assembly workshop in a Tunisian company of sanitary equipment and water and gas connections</b> L. Bouzgarrou, A. Omrane, T. Khalfallah and A. Henchi, Tunisia</p> <p><b>Electromyographic and kinematic patient handling risk assessment: Overhead lift vs. floor lift</b> F. Draicchio, G. Chini, A. Marchesi, A. Silveti and A. Ranavolo, Italy</p>	

<b>228</b>	<b>Human Performance</b> Co-Chairs: A. Murata, Japan, and C. Morley, USA	PEHF
13:30-15:30 - EUROPE 2	<p><b>Effects of Arctic conditions on human performance</b> A. Reyes Balindres, Jr., R. Kumar and T. Markeset, Norway/Sweden</p> <p><b>Multinomial logistic regression model by stepwise method for predicting subjective drowsiness using performance and behavioral measures</b> A. Murata, Y. Ohta and M. Moriwaka, Japan</p> <p><b>Operators' dependency on decision aids with different levels of automation in a speeded judgment task</b> C. Morley, Y. Yamani and J. McCarley, USA</p> <p><b>Implications of sedentary lifestyle for designing dynamic work in times of digital selfness</b> W. Bauer and C. Vocke, Germany</p> <p><b>Computational prediction of subjective sense of force based on muscle activation estimation</b> Y. Kishishita, T. Tsuji and Y. Kurita, Japan</p> <p><b>Simplifying sign language by joint characteristics for people with special needs</b> N. Lau, Hong Kong</p> <p><b>Visual adaptation time research based on visual effects method</b> D. Feng and L. Hui, China</p>	
<b>229</b>	<b>Driver Behavior III</b> Chair: W. Zhang, USA	RR
13:30-15:30 - EUROPE 5	<p><b>Observations of drivers' behavior when opening car door with two stages</b> C. -Y. Huang, Taiwan</p> <p><b>Resurrecting driver workload: Multivariate analysis of test track data</b> J. Auflick, USA</p> <p><b>Effect of mental workload and aging on driver distraction based on the involuntary eye movement</b> L. A. Son, H. Hamada, M. Inagami, T. Suzuki and H. Aoki, Japan</p> <p><b>A study on the positioning of a mounted mobile phone to reduce distraction while driving among young adults</b> A. Alconera, L. Garcia, J. Mercado and A. Portus, Philippines</p> <p><b>Aging effect of pedal errors of driving under different audiovisual conditions</b> Q. Wu, J. Yang, Y. Yu, M. Yoshitake, S. Takahashi, Y. Ejima and J. Wu, Japan</p>	
<b>230</b>	<b>Ergonomics Modeling and Usability Evaluation V</b> Co-Chairs: C. Quijano, Philippines, and R. Waszkowski, Poland	EMUSP
13:30-15:30 - EUROPE 7	<p><b>Usability assessment of the user interface of kids apps for prevention of in-app purchases</b> J. C. Bisnar, C. J. Lat, C. Quijano and B. Custodio, Philippines</p> <p><b><i>Inspædia</i>: [Almost] everything about simplicity, playfulness and inspiration</b> P. Maldonado, F. Teixeira, J. P. Duarte, A. Câmara, N. Correia, L. Ferrão, P. Ermida and M. Passos, Portugal/Brazil</p> <p><b>Human-computer interaction in sanitary inspection simulation exercises</b> R. Waszkowski, T. Nowicki and A. Saniuk, Poland</p> <p><b>Comparative assessment of self-perceived emotions in processes of interaction with analog and digital designs</b> C. Rojas and D. Jilmenez, Colombia</p> <p><b>Study with fun: Development of a game-based &amp; haptically-enhanced application</b> Y. Li and A. Juloori, USA</p> <p><b>Use of smartphones by the elderly: A psychological perspective</b> B. Zafar and A. Pervez, Pakistan</p>	

<b>231</b>	<b>Health, Injury and Accidents</b> Chair: A.-C. Macquet, France	SOR
13:30-15:30 - EUROPE 1	<p>Strategy for prevention and control of occupational injuries sports related in a public utility company                      E. Cadavid and L. M. Saenz, Colombia</p> <p>Identifying human factors mismatches in amusement ride containment failure                      P. Stenzler, H. Handley and K. Woodcock, USA</p> <p>Application of functional movement screen to the evaluation of youth's physical health                      T. Liao, W. Zheng and Y. Meng, China</p> <p>Relative age effect on psychological factors related to sports participation among Japanese elementary school children                      Y. Kawata, A. Kamimura, K. Oki, K. Yamada and M. Hirose, Japan</p> <p>User interface evaluation of a ski injuries management system                      F. Dalipi, M. Ferati and S. Yayilgan, Norway</p>	
<b>232</b>	<b>Examples of Operationalizing New Computing Technologies for Teams Dealing with Dynamic Environments</b> Co-Chairs: N. Berry, B. Prugh and L. Garciga, USA	SYSI
13:30-15:30 - EUROPE 3	<p>Accessibility, adaptability, and extendibility: Dealing with the small data problem                      T. Bauer and D. Garcia, USA</p> <p>Unconstrained biometric identification in real world environments                      M. Savvides, F. Juefei-Xu, U. Prabhu and C. Bhagavatula, USA</p> <p>Predicting team performance through human behavioral sensing and quantitative workflow instrumentation                      M. Daggett, K. O'Brien, M. Hurley and D. Hannon, USA</p> <p>Improving anomaly detection through identification of physiological signatures of unconscious awareness                      A. Piasecki, M. Fendley and R. Warren, USA</p> <p>Human-machine interaction in the cockpit and applicable design changes toward better collaboration                      A. Taylor, USA</p> <p>Rapid iterative collaboration between humans and machines in dynamic contexts                      J. Santini, USA</p>	
<b>233</b>	<b>eLearning and Teaching Strategies</b> Chair: L. Ngiam, Singapore	TELS
13:30-15:30 - OCEANIC 2	<p>Language e-learning and music appreciation                      L. Ngiam and S. L. See, Singapore</p> <p>Gaze-based real-time adaptivity and adaptability in an eLearning environment: A pre-release insight                      H. Schmidt, A. Henka and G. Zimmermann, Germany</p> <p>Study on practicing, teaching and sharing on design for sustainability in China                      M. Lyu, China</p> <p>Building a disaster recovery framework for e-learning environment using disaster information and Inter-cloud computing                      S. Togawa and K. Kanenishi, Japan</p> <p>Teachers and learners of a foreign language at primary school in France: When occupational and cognitive ergonomics need to be considered together                      E. Magnat, France</p> <p>Ergonomics checkpoints for educational environments                      L. Schulze, USA</p>	

<p><b>234</b></p>	<p><b>Dissing the Dis – The Swedish Concept</b> Chair: M. Abdipour, Sweden</p>	<p>DI</p>
<p>13:30-15:30 - OCEANIC 4</p>	<p>A design research lab - An integrated model to identify conscious and unconscious behavior in the design process M. Abdipour, L. Lorentzen and H. Olin, Sweden</p> <p>(In) spectors - Presentation of education, training and professional practice of professional test persons L. Lorentzen and K. Tiksta, Sweden</p> <p>How the Swedish Rheumatism Association uses the design for all tests to approve easy to handle packages and products L. Lorentzen and J. Eklund, Sweden</p> <p>How to categorize users from a design point of view L. Lorentzen, Sweden</p> <p>Vital minutes - Cardiac arrest and the essence of time L. Johansson, A. Popa, H. Bahari, M. Aslam and S. Amjadian, Sweden</p>	
<p><b>235</b></p>	<p><b>Leadership Style</b> Chair: S. Pickl, Germany</p>	<p>HFML</p>
<p>13:30-15:30 - OCEANIC 6</p>	<p>Path model analysis of perceived organizational support, job satisfaction and turnover intention: Study on Indian Generation Y employees S. Rai, India</p> <p>Charismatic influence and organizing capability as unique managerial self-efficacies for effective small firm performance in developing economy M. -A. Sanda, Ghana</p> <p>Applying decision analysis to human factors in decision making at Stanford University Medical Center J. Celona, USA</p> <p>Exploring potential of blue-collar workers in the information manufacturing system N. Yu, L. Shen and S. Lewark, China</p> <p>Global challenges for universities and for the managers of higher education sector M. Geryk, Poland</p> <p>A segmented abstraction hierarchy model for business process modeling A. Jones, USA</p>	
<p><b>236</b></p>	<p><b>Systems Engineering Applications III</b> Co-Chairs: B. Sims, USA, and A. Hamrol, Poland</p>	<p>HFSSSE</p>
<p>13:30-15:30 - OCEANIC 8</p>	<p>Repairing codes: Infrastructural friction in scientific computing B. Sims, USA</p> <p>Human interaction and user interface design for IOT environment based on communicability M. Ferrari and P. Aquino, Jr., Brazil</p> <p>A hot-backup system for backup and restore of ICS to recover from cyber-attacks S. Yamamoto, Y. Hashimoto, S. Jing, I. Koshijima and T. Hamaguchi, Japan</p> <p>Design and implementation of a complex virtual reality system for product design with active participation of end user F. Górski, P. Bun, R. Wichniarek, P. Zawadzki and A. Hamrol, Poland</p> <p>Structure and algorithms of signal processing of the ADS-B receiver M. Smirnov, K. Khramov and S. Zhiganov, Russia</p> <p>Handling the scenarios set complexity for a V2V intersection assistance system: A holistic approach H. Aboutaleb, France</p>	



15:30 - 16:00 Refreshments will be provided in Atlantic Hall		
<b>237</b>	<b>HSSE Planning Session</b> Co-Chairs: L. Freund, USA, and W. Cellary, Poland	HSSE
16:00-18:00 - AUSTRALIA 2		
<b>238</b>	<b>Empathetic Design</b> Chair: M. Kang, Korea	APD
16:00-18:00 - ASIA 1	<p>Indirect teaching for all and Autism Spectrum Disorder (ASD) in design class (ITAD) encouraging their emotional empathy                      H. -J. Jo, S.-J. Chung and D. Satterfield, South Korea/USA</p> <p>Affective multimodal story-based interaction design for VR cinema                      J. Kang, South Korea</p> <p>Can a digital screen in subway stations serve as a valid communication platform for citizens?                      M. Kang, Korea</p> <p>Comfort experience in everyday life events                      N. Ahmadpour, Australia</p> <p>Uplift: Happiness and communication in the context of cancer                      B. Ilhan, USA</p> <p>Designing for people's pleasure: Amusement parks in North Korea                      H. S. Choi, South Korea</p> <p>Collective spaces experienced in the absence of sound: A subjective approach to the deaf perspective                      J. Oliveira, A. Rêgo, B. Nascimento and E. Santana, Brazil</p>	
<b>239</b>	<b>Human Factors in Aviation III</b> Co-Chairs: R. Rohde, USA, and J. Kraemer, Germany	AVI
16:00-18:00 - ASIA 2	<p>Knowing what to do requires knowing what can be done. OGPT adds incremental variance in predicting air traffic control performance                      J. Kraemer and H. -M. Süß, Germany</p> <p>EEG-based human factors evaluation of conflict resolution aid and tactile user interface in future air traffic control systems                      X. Hou, F. Trapsilawati, Y. Liu, O. Sourina, C.-H. Chen, W. Mueller-Wittig and T. A. Wei Ang, Singapore</p> <p>Developing a mental model in ATC 1 - Learning situational awareness                      R. Rohde, USA</p> <p>Sleep environment recommendations for future spaceflight vehicles                      Z. Caddick, K. Gregory and E. Flynn-Evans, USA</p> <p>A review of function allocation for separation assurance systems                      R. Daiker and T. Lewis, USA</p> <p>Standardization of human-computer-interface for geo-fencing in small unmanned aircraft systems                      D. Thirtyacre, R. Brents, M. Goldfien, D. Hunter, D. Ison and B. Terwilliger, USA</p> <p>Synergistic allocation of flight expertise on the flight deck (SAFEdeck): A design concept to combat mode confusion, complacency, and skill loss in the flight deck                      P. Schutte, K. Goodrich and R. Williams, USA</p>	

<b>241</b>	<b>Innovative Design III</b> Chair: N. Stanton, UK	ED
16:00-18:00 - ASIA 5	<p><b>Change the mental model, change the behavior: Using interface design to promote appropriate energy consuming behavior in the home</b> K. Revell and N. Stanton, UK</p> <p><b>Innovative wearable device design and evaluation for reducing risk of knee osteoarthritis</b> W. -T. Lu and F. -G. Wu, Taiwan</p> <p><b>Research on the modular function design of intelligent lighting equipment based on different environmental requirements</b> J. Ye, J. Cheng, L. Xi and W. Xiao, China</p> <p><b>Kubit: A framework for the development of responsive and ergonomic holographic user interfaces</b> J. Looker and T. Garvey, Canada</p> <p><b>The development of design specification for ergonomics sofa in Malaysia</b> K. A. M. Daud, A. R. Ismail, S. Ismail and N. Z. Khidzir, Malaysia</p> <p><b>Role of fuzzy logic and cause-effect analysis in UX research for mobile</b> A. Iouguina, Canada</p> <p><b>When science and innovation in use do not meet the standards - the protection of the head and design thinking</b> V. Rosa and B. Pereyre, France</p>	
<b>242</b>	<b>Human Factors and Ergonomics in Disaster Scenarios</b> Co-Chairs: V. Duffy and N. Lightner, USA	HC
16:00-18:00 - OCEANIC 1	<p><b>Application of the Delphi Method in the development of a triage method for vulnerable people in disaster</b> T. Kanno, C. Ishida, Y. Kubo, M. Saito, M. Ohara, K. Kawahara, T. Yamamoto and K. Furuta, Japan</p> <p><b>Process inefficiencies threatening the optimal delivery of traumatic care for motorcycle crash victims</b> T. Litzinger, A. Boquet, J. Cabrera, K. Captain, M. Fabian, S. Miles, S. Shappell and T. Cohen, USA</p> <p><b>Driver health and safety risk within the Australian rail industry: A ticking time bomb?</b> J. Chapman, A. Naweed and M. Allan, Australia</p> <p><b>Performance, safety and usability of hospital bed evacuation devices</b> N. Lightner, T. Bagian, T. Bauld, K. Betz, S. Wingard, D. Lofton and T. Jackson, USA</p> <p><b>Application of fuzzy cognitive map as an advanced risk assessment tool in complex and dynamic systems</b> A. Jamshidi, S. Abbasgholizadeh Rahimi, A. Ruiz and D. Ait-Kadi, Canada</p>	
<b>243</b>	<b>Automation and Human-Machine Systems</b> Chair: T. Hellig, Germany	MFG
16:00-18:00 - OCEANIC 3	<p><b>Safety system for industrial robot to support collaboration</b> G. Bolmsjo, M. Bennulf and X. Zhang, Sweden</p> <p><b>Current challenges for UX evaluation of human-robot interaction</b> J. Lindblom and R. Andreasson, Sweden</p> <p><b>Assistance systems in manufacturing: A systematic review</b> X. Yang and D. Plewe, Singapore</p> <p><b>Assembly line balancing analysis of sound board glue production line for grand piano process (Case Study PT. Yamaha Indonesia)</b> T. Immawan and R. Kurniawan, Indonesia</p> <p><b>The role of automated technologies and sustainability-based food manufacturing: Selected Malaysian and British manufacturers</b> N. M. Taha, UK</p>	

244	<b>Human Factors and Safety II</b> Co-Chairs: R. Pope-Ford, USA, and S. Miguez, Brazil	SHMF
16:00-18:00 - OCEANIC 5	<p><b>Electronic work procedures</b> M. Sacks and S. Lawrie, USA</p> <p><b>Work movements: Balance between freedom and guidance on an assembly task in a furniture manufacturer</b> S. Miguez, S. Hallbeck and P. Vink, Brazil/USA/The Netherlands</p> <p><b>Effects of mobile technology use on head and neck flexion in children</b> R. Pope-Ford, USA</p> <p><b>Ergonomic design thinking modeling in HSE management – strategies to properly manage health safety and environmental processes in the workplace</b> M. Santos, M. Soares and A. Alves, Brazil</p> <p><b>Shift management in reporting and control center</b> C. Bernardino, O. Frias and M. C. Neves, Portugal</p> <p><b>Ergonomic assessment of the lifting tasks performed by North Indian workers in LPG cylinder distribution supply chain</b> S. Kapur, India</p> <p><b>Simultaneous exposure to vibration and low-frequency noise in aircraft mechanics</b> A. Leal, R. Canotilho, M. Alves-Pereira, H. Ribeiro and M. C. Neves, Portugal</p>	
245	<b>Road and Rail Safety</b> Chair: K. Plant, UK	RR
16:00-18:00 - EUROPE 6	<p><b>Measuring trade-offs between risk and travel time based on experimental speed data</b> P. Intini, P. Colonna, N. Berloco and V. Ranieri, Italy</p> <p><b>Crash testing high-power portable traction system device</b> N. Parera, D. Sánchez, A. Fornells, E. Boix and R. Molina, Spain</p> <p><b>Traffic light assistant simulation: Foggy weather</b> J. Poirier, F. Ludwig and S. Motamedi, USA</p> <p><b>An ergonomic solution to decrease the car accident. A case study: Homonymous hemianopsia patients</b> M. Alavi, H. S. Naeini and N. S. Rozveh, Iran</p> <p><b>Enhancing a drivers safety scoring model by identifying drivers exhibiting coasting downhill behavior</b> S. Malek, UK</p> <p><b>Enhancing a driver safety scoring model by using historical collision-prone locations on a route</b> S. Malek, UK</p> <p><b>Impact of road conditions on operational behavior of bicyclists</b> D. Piatkowski and M. Mazari, USA</p>	
246	<b>Human, Social and Organizational Factors in Industry</b> Co-Chairs: V. Rice, USA, and E. Drigo, Brazil	SOE
16:00-18:00 - EUROPE 4	<p><b>Human and economic factors of long-distance commuting technology: Analysis of Arctic practices</b> A. Kozlov, S. Gutman, E. Rytova and I. Zaychenko, Russia</p> <p><b>Analysis of organizational and human factors in the local production arrangement of the hotel chain to avoid social and environmental impacts: Case study of Maragogi, Alagoas, Brazil</b> E. Menezes, S. A. Filho and E. Drigo, Brazil</p> <p><b>The relationship between sustained attention and mindfulness among U. S. active duty service members and veterans</b> V. Rice and B. Liu, USA</p> <p><b>Pressure for production and employees safety behaviors among Ghanaian power generation companies: The moderating role of management commitment to safety and priority of safety</b> K. Amponsah-Tawiah and J. Opata, Ghana</p> <p><b>Lean manufacturing and sociotechnical and ergonomics practices implementation: A maturity analysis assessment</b> L. Vergara, G. Tortorella, E. Ferreira and P. Arantes, Brazil</p> <p><b>Flexible collaborative manufacturing systems</b> A. McLeod and J. Fiscus, USA</p>	

<p><b>247</b></p>	<p><b>Ergonomics and Material Environment Design II</b> Chair: A. Jaglarz, Poland</p>	<p>SINF</p>
<p>16:00-18:00 - EUROPE 8</p>	<p>Incubating and nurturing sustainable practices through staged social engagements S. Sharma and K. W. M. Siu, Hong Kong</p> <p>Public facilities driven by service demand for space R. Rusek and J. Colomer-Llinas, Spain</p> <p>Adaptive reuse of buildings as an important factor of sustainable development K. Strumiłło, Poland</p> <p>Human factors of underground spaces: Psychological, social and health parameters A. Roberts, E.-H. Lee, G. Christopoulos and C. -K. Soh, Singapore</p> <p>Citizen personas as a tool for a model process of designing an automated transport system for urban spaces N. Marsden, Germany</p>	
<p><b>248</b></p>	<p><b>Ergonomics Modeling and Usability Evaluation VI</b> Chair: E. Bekiaris, Greece</p>	<p>EMUSP</p>
<p>16:00-18:00 - EUROPE 2</p>	<p>Quantifying the effects of update rate on motor performance and user experience S. H. Sim, B. Wu, K. Brady, A. Enquobahrie, R. Ortiz and S. Arikatla, USA</p> <p>Modeling reduced user experience caused by visual latency K. Brady, B. Wu, S. H. Sim, A. Enquobahrie, R. Ortiz and S. Arikatla, USA</p> <p>How do needs and preferences of a user, match the settings of the interfaces they use E. Chalkia, E. Bekiaris and I. L. Madrid, Greece/Spain</p> <p>Mapping psychophysiological surrogates of cognitive processes K. Streilein, USA</p> <p>Analysis of mobile technology integration as spatial accessibility action M. Dias, J. A. Barroso Castañon and E. Barrére, Brazil</p> <p>Usability testing of web-based history learning system of chronologic information representation by utilizing an eye tracking system M. Masood and L. W. Ang, Malaysia</p> <p>Introducing ergonomics into innovations of fire escaping window H. Du and Y. Zhao, China</p>	
<p><b>249</b></p>	<p><b>Human Factors in Energy</b> Chair: P. Fechtelkötter, USA</p>	<p>ENERGY</p>
<p>16:00-18:00 - EUROPE 5</p>	<p>Consumer electric energy management strategies and preferences in emergency demand response: Results from a survey H. Li, H. Salah and Z. Zhang, USA</p> <p>Exploring observed error types in teams working in simulated drilling environments M. Crichton, S. Moffat and L. Crichton, UK</p> <p>Efficiency enhancement of centralized PV street lighting system using single-ended primary inductance converter by reducing input ripple contents S. Mustafa, Pakistan</p> <p>The human factor role in the reducing of the power supply reliability I. Semykina and E. Skrebneva, Russia</p>	

<p><b>250</b></p>	<p><b>Human Interaction in Automated and Collaborative Systems</b> Chair: Y. Rybarczyk, Portugal</p>	<p>SYSI</p>
<p>16:00-18:00 - EUROPE 7</p>	<p><b>Effect of the implementation of the two-third power law in tele-operation</b> Y. Rybarczyk and D. Carvalho, Portugal</p> <p><b>Speed and accuracy improvements in visual pattern recognition tasks by employing human assistance</b> A. Schur and C. Tappert, USA</p> <p><b>Identifying pitch setting for increased customer satisfaction</b> E. Spencer Ongson, I. Bracamonte, C. R. Tan, B. Macapagal and A. J. Portus, Philippines</p> <p><b>Development and evaluation of an augmented object prototype for notifications in collaborative writing environments</b> J. A. Brenes, G. Lopez and A. Carranza, Costa Rica</p> <p><b>Connecting small form-factor devices to the internet of things</b> A Martinez, USA</p> <p><b>Interfaces for distributed remote user controlled manufacturing as collaborative environment</b> V. Spasojević Brkić, G. Putnik, Z. Veljković, V. Shah and A. Essdai, Serbia</p> <p><b>Novel helicopter flight display and director</b> E. Bachelder, USA</p>	
<p><b>251</b></p>	<p><b>Organizational Behavior and Development</b> Co-Chairs: M. Salo and J. Kantola, Finland</p>	<p>HFBMS</p>
<p>16:00-18:00 - EUROPE 1</p>	<p><b>Leadership focus in modern expert organization</b> T. Reunanen and M. Junno, Finland</p> <p><b>An organizational activity framework for effective business practices implementation in research-oriented organizations in developing economies</b> M. -A. Sanda, Ghana</p> <p><b>Degree of agility with an ontology based application</b> M. Salo, E. Markopoulos, H. Vanharanta and J. Kantola, Finland</p> <p><b>Taking tacit knowledge seriously in strategy-as-practice</b> D. Poudel, Finland</p> <p><b>Effective corporate communication: A solution to foster new product idea generation dynamics</b> A. Kazmi, M. Naaranoja, J. Kytola and J. Kantola, Finland</p> <p><b>A managers' means to motivate experts at work</b> J. Koskialho, Finland</p> <p><b>Digitalization and big data supporting responsible business co-evolution</b> V. Salminen, H. Ruohomaa and J. Kantola, Finland</p>	
<p><b>252</b></p>	<p><b>Education Research and Applications II</b> Co-Chairs: R. Ford and N. Kreischer, USA</p>	<p>TELS</p>
<p>16:00-18:00 - EUROPE 3</p>	<p><b>A preliminary study of using avatars and learning companions for junior high school students in enhancing studying Chinese classical literature</b> S. -J. Hung and S. -C. Young, Taiwan</p> <p><b>Coaching for quality: Improving quality by easing the burden of design</b> R. Ford and D. Penix, USA</p> <p><b>Gaps between practice and education of architect: A study of India</b> S. Saxena, S. Arora and A. Shrivastava, India</p> <p><b>The usage of social networking sites for education in the higher education context</b> S. Yuwakosol, Thailand</p> <p><b>A preliminary study of integrating an action role-playing game into an ancient prose</b> P. C. Fang and S. -C. Young, Taiwan</p>	

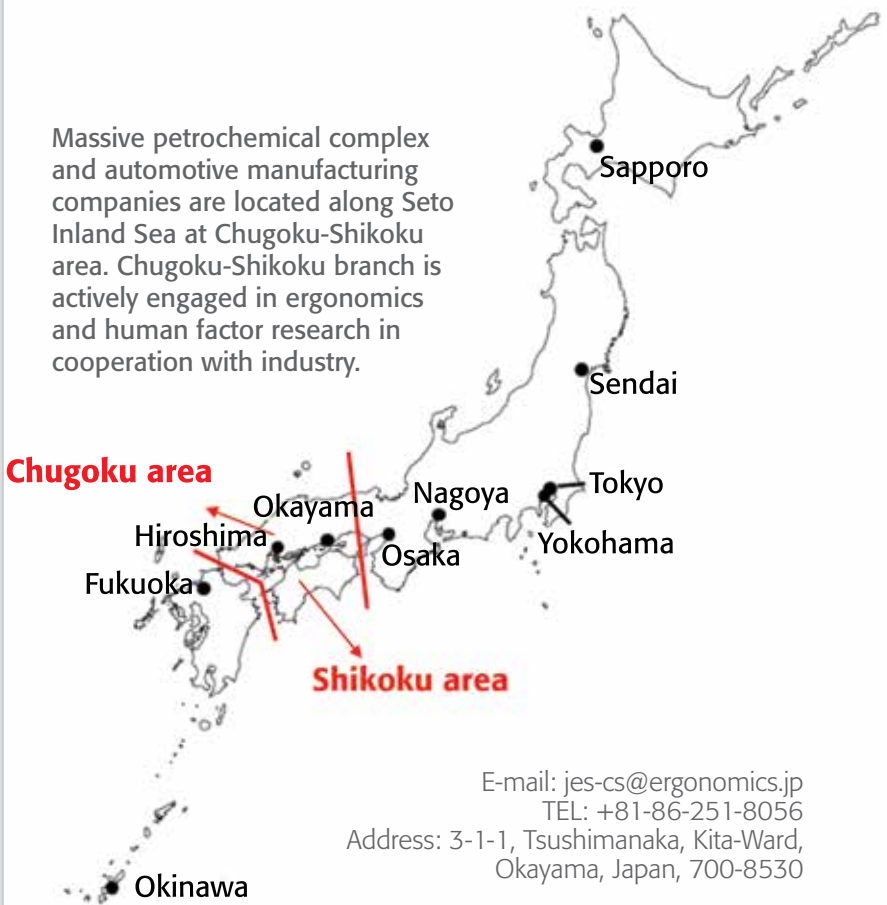
<p><b>253</b></p>	<p><b>Optimizing Human-Systems Performance through System Design</b> Co-Chairs: J. Alfredson, Sweden, and T. Kelley, USA</p>	<p>HFRUS</p>
<p>16:00-18:00 - OCEANIC 2</p>	<p>An analysis of displays for probabilistic robotic mission verification results M. O'Brien and R. Arkin, USA</p> <p>A method for neighborhood gesture learning based on resistance distance P. Yanik, A. Threatt, J. Merino, J. Manganelli, J. Brooks, K. Green and I. Walker, USA</p> <p>A neurophysiological assessment of multi-robot control during NASA's Pavilion Lake Research project J. Blitch, USA</p> <p>UAS in the NAS collision avoidance, self-separation, and alerting times study: The effects of horizontal miss distances and alert times on pilots controlling simulated UAS and manned aircraft encounters R. Ghatas, J. Comstock, M. Vincent, M. Consiglio, K. Hofferler and K. Arthur, USA</p> <p>Evaluation of object type recognition method in construction tele-operation robot control system L. Huang, T. Ni and H. Yamada, China</p> <p>Generalized hybrid prognostic for unmanned vehicle using vector quantization-based pattern search M. Samie and A. Alghassi, UK</p> <p>Search optimization of rescue quadcopter S. M. Taheri, Japan</p>	
<p><b>254</b></p>	<p><b>Design for Inclusion in the Living Environment and Ageing Population</b> Chair: Jasmien Herssens, Belgium</p>	<p>DI</p>
<p>16:00-18:00 - OCEANIC 4</p>	<p>Leveraging accessibility in highway rest area: The new worldwide benchmark of Autogrill Villorresi EST G. Ceppi, Italy</p> <p>ARCHIDIVERSITY: 9 architects design for all G. Ceppi, R. Rodriguez and L. Bandini Buti, Italy</p> <p>CampUS: How the co-design approach can support the social innovation in urban context D. Fassi, L. Galluzzo and A. De Rosa, Italy</p> <p>The digital crystal ball: A service recommendation system for designing social participation experiences among the elderly Y. Shirato, K. Kitamura, M. Oono, Y. Nishida and H. Mizoguchi, Japan</p> <p>Handrail-shaped IoT sensor for long-time monitoring of the mobility in elderly people Y. Takahashi, Y. Nishida, K. Kitamura and H. Mizoguchi, Japan</p>	
<p><b>255</b></p>	<p><b>Organizational Learning and Performance Management</b> Co-Chairs: S. Nazir, Norway, and C. Berlin, Sweden</p>	<p>HFML</p>
<p>16:00-18:00 - OCEANIC 6</p>	<p>Change agent infrastructure (CHAI) – a stakeholder analysis tool for ergonomics- and work environment- related change projects C. Berlin, J. Berglund and E. Lindskog, Sweden</p> <p>Improvement of productivity and employee performance through an efficient human resource management practices L. Ngwenya and C. Aigbavboa, South Africa</p> <p>Organizational communication: Discussion of pyramid model application in shift records E. Drigo and S. A. Filho, Brazil</p> <p>Human factors for development of corporate internal social investments portfolio A. Kozlov and A. Teslya, Russia</p> <p>Job satisfaction level of federal/provincial/semi government officers of Pakistan R. Khan, U. Asgher and T. Ahmed, Pakistan</p> <p>Participatory strategic plan investment and operation in an oil industry R. Gonzalez, Venezuela</p>	

# Japan Ergonomics Society (JES) Chugoku-Shikoku Branch



The longest bridge in the world that is equipped with both expressway and railway

Massive petrochemical complex and automotive manufacturing companies are located along Seto Inland Sea at Chugoku-Shikoku area. Chugoku-Shikoku branch is actively engaged in ergonomics and human factor research in cooperation with industry.



E-mail: [jcs@ergonomics.jp](mailto:jcs@ergonomics.jp)  
TEL: +81-86-251-8056  
Address: 3-1-1, Tsushimanaka, Kita-Ward,  
Okayama, Japan, 700-8530



Petrochemical complex located at Okayama

# Interactive Poster Demonstrations

Posters will be displayed Friday, July 29 - Sunday, July 31, 2016, during the designated timeslots listed below. Posters should be positioned 30 minutes prior to the designated start of the timeslot and removed no later than 30 minutes after the end of the designated timeslot.

## POSTER/DEMONSTRATION SESSIONS FRIDAY, JULY 29

Session Time: 10:30-12:30

Room: Atlantic Hall

- A1. "Tom" – is a pot plant able to combat elderly loneliness?  
T. Partl, Germany
- A2. Impact of feedback on performance utilizing kinesic cues  
K. Badillo-Urquiola, V. Prisco and R. Doran, USA
- A3. Driver distraction: Confusing "cause" with "effect"  
D. Curry and J. Meyer, USA
- A4. Models, classification and application of quality-of-service for bicycle lanes in China  
X. Fang, China
- A5. Experimental study of probability parameters used in machinery risk assessment  
F. Gauthier and J. A. Cardenas, Canada
- A6. A Taiwanese user experience questionnaire  
Y.-H. Chien, W.-T. Chang, C.-C. Chuang and S.-H. Chen, Taiwan
- A7. Low-fidelity simulation vs. live human arms for intravenous cannulation training: A qualitative assessment  
G. Boykin, USA
- A8. Mobile Technology improves therapy-adherence rates in elderly patients undergoing rehabilitation – A crossover design study  
A. Mertens, S. Becker, S. Theis, P. Rasche, M. Wille, C. Bröhl, L. Finken and C. Schlick, Germany
- A9. Cultural and creative industries of the color and design of packaging  
C.-C. Lai and L.-W. Kuo, Taiwan
- A10. Increasing awareness about sport in Turkey  
E. Zorba, Turkey
- A11. Gesture preference with horizontal and vertical multi-touch devices  
R. Regal, J. Gomer and K. Moore, USA
- A12. Human-smart phone interaction in the context of personal travel service and guidance  
X. Nan and L. Zhang, USA
- A13. Sleep environment recommendations for future spaceflight vehicles  
E. Flynn-Evans and Z. Caddick, USA
- A14. A study on the control-display compatibility of interactive interface on intelligent electric cooker among different user group  
H. Zhang, L. Feng and N. Lin, China
- A15. The importance of ergonomics analysis in prevention of MSDs: A pilot study  
C. Coelho, P. Oliveira, E. Maia, J. Maia and M. Dias Teixeira, Portugal
- A16. Trust transfer mechanism and intention on accepting NFC mobile payment: An empirical research  
H. Shen, P. Liu and S. Yi, China
- A17. Intelligent improvement for human resources performance in the organization  
M. Shahriari, Iran
- A18. What drives ecodriving? Hybrid electric vehicle drivers' goals and motivations to perform energy efficient driving behaviors  
T. Franke, M. Arend, R. McIlroy and N. Stanton, Germany/UK



# Interactive Poster Demonstrations

**Poster Sessions Friday, July 29      Session Time: 10:30-12:30      Room: Atlantic Hall**

- A19. Improvement of the performance of P300-Speller-BCI by pre-teaching to ALS patients  
H. Tanaka and Y. Koizumi, Japan
- A20. Evaluation of the perception of knowledge and occupational exposure to xylene, toluene and ethylbenzene for the furniture industry workers  
M. Pedroso and M. D. Teixeira, Portugal
- A21. Relationship between exposure to xylenes and ethylbenzene expressed either in concentration in air and amount of their metabolites excreted in the urine  
M. D. Teixeira, V. Domingues, A. Teixeira, R. Rangel, E. Maia, J. Maia, S. Olea and C. Delerue-Matos, Portugal
- A22. Risk of exposure to formaldehyde in pathological anatomy laboratories  
M. D. Teixeira, V. Domingues, A. Teixeira, T. Teles and C. Delerue-Matos, Portugal
- A23. The use of digital tools for self-learning motivation in children aged between 4 and 5 years old  
J. Rincon, Colombia
- A24. Psychosocial working conditions in public school teachers from Valle del Cauca-Colombia  
J. C. Pulido, H. Gomez and R. A. Zuñiga, Colombia
- A25. Investigating the effects of adaptive training on transactive memory in gunnery crews  
C. Ruprecht, F. Hannigan and J. Murphy, USA
- A26. Redesign of a workstation to reduce the risk of wrist lesion to improve the work conditions in an industry focused on the assembly of spark plug wire  
D. Gomez-Garcia, R. López Sesenes, M. Contreras-Valenzuela and A. Martinez-Oropeza and V. Leon-Hernández, Mexico
- A27. Use of a hygiene mask for pollen protection using 2015 survey data  
M. Morishima and K. Kishida, Japan
- A28. Individual resilience: Observations and implications of General George Patton's strategy to stress the opposition to a state of exhaustion  
M. Schmorrow and D. Schmorrow, USA
- A29. Are low doses of alcohol taken at 2 pm objectively and subjectively more detrimental for novice drivers than for more experienced drivers?  
C. Berthelon, E. Galy and H. Loeches De La Fuente, France
- A30. Friendly "fatigue alert" mobile apps to help aviation workers prevent, identify and manage alertness and fatigue  
R. Arnaldo, F. G. Comendador, L. Perez and A. Sanz, Spain
- A31. A highly automated driving algorithm implementation on STISIM  
A. Eriksson, A. Spsychala, J. De Winter and N. Stanton, UK/The Netherlands
- A32. The impact of culture on situation awareness  
S. Samman, USA
- A33. Driver response to connected and automated vehicle failures  
S. El-Dabaja, D. McAvoy and B. Naik, USA
- A34. Low-back joint moment and tissue oxygenation level using kinematics inverse dynamic technique and near-infrared spectroscopy during simulated patient-handling task  
D. Mori, H. Sumii and M. Shiokawa, Japan
- A35. Gymnastics studies conducted with children aged between 3-8, motor skills and performance tests (gross motor development test (TGMDI a) gross motor skills test, motor performance tests) investigation  
A. Uslu, Turkey
- A36. The usefulness of augmenting reality on the vehicle head-up display  
K. Kim and Y. Hwang, South Korea
- A37. Driver mental workload estimation from naturalistic driving data  
M. Christoph and N. van Nes, The Netherlands

# Interactive Poster Demonstrations

**Poster Sessions Friday, July 29      Session Time: 10:30-12:30      Room: Atlantic Hall**

- A38. Mining traffic accidents data for the development of an accident warning mobile application for tourists  
H. Michal, Cyprus
- A39. Cognitive constructs and psychomotor tracking  
R. Fosha, L. Blalock and S. Kass, USA
- A40. Pilot performance assessment in training via optical brain imaging sensor  
G. Hernandez-Meza, K. Izzetoglu, H. Ayaz and K. Oden, USA
- A41. NAVAIR human systems 4.6 digital human modeling project updates  
L. Brattin, P. Teas, L. Jones, C. Mattingly, M. Warren and B. Shender, USA
- A42. Comparison of YO-YO intermittent recovery test (level 1) parameters of soccer players  
E. Heper, B. Gürol and I. Yilmaz, Turkey
- A43. Measurement of low back muscle fatigue and recovery time during and after isometric endurance test  
D. Mori, H. Sumii, M. Shiokawa, M. Kunisada, T. Harada, T. Ono and T. Horiuchi, Japan
- A44. Brain activity measurement for tongue's motor imagery  
M. Nishikawa and H. Tanaka, Japan
- A45. Characterization of driver perception reaction time at the onset of a yellow indication  
I. El-Shawarby, H. Rakha, A. Amer and C. McGhee, USA
- A46. Performance based assessment for portable landing signal officer virtual reality training  
L. Sciarini, USA
- A47. Effects of mounting location and alert modality for mass casualty monitoring tool  
A. Eastin, C. Kurtz and V. Finomore, USA
- A48. Research on drivers' recognition ability of obstacles under lighting environment of tunnel entrance sections  
M. Xu, Z. Yu, X. Pan, Z. Xia, F. Chen, S. Li, D. Feng and G. Wu, China
- A49. A human-machine interface for cooperative highly automated driving  
F. Naujoks, Y. Forster and A. Neukum, Germany
- A50. Description of behaviors and actions at work with the presence of ergonomic risk in the workplace  
E. González-Muñoz, México
- A51. Insight and lessons learned from the analysis of human-related events of nuclear power plants  
J. T. Kim, Korea
- A52. Research on design pattern of city tunnel side wall based on the driver visual effect  
Z. Xia, Y. Lv, X. Pan, F. Chen, M. Xu, G. Wu and D. Feng, China
- A53. Cockpit input device ergonomic configuration study (INDECS)  
A. Garcia, USA
- A54. Cities are places to play  
I. Oliveira and W. Correia, Brazil

## **POSTER/DEMONSTRATION SESSIONS FRIDAY, JULY 29**

**Session Time: 13:30-15:30**

**Room: Atlantic Hall**

- D1. Work-related musculoskeletal disorders among the hairdressers: A pilot study  
J. Cruz and M. Dias Teixeira, Portugal

# Interactive Poster Demonstrations

**Poster Sessions Friday, July 29      Session Time: 13:30-15:30      Room: Atlantic Hall**

- D2. A method of using weight distribution and 3-dimensional data to study the relationship of bodily form, spinal and the lying comfort  
Y. Chen and Y. Guo, China
- D3. Experimental research of motion ranges about knee joint  
W. Fu, G. Cheng, Y.-F. Ma and A. Yang, China
- D4. Upper body motion tracking system with inertial sensors for ergonomic issues in industrial environments  
F. Caputo, E. D'Amato, S. Spada, F. Sessa and M. Losardo, Italy
- D5. Repetitive working in slaughterhouses: The esthesiometry use of the hand as a proposal for assessing levels of RSI compression syndromes of the upper limbs  
P. Reis, A. Moro, D. Reis and E. Ramos, Brazil
- D6. Association between postural balance and vitamin D receptor gene polymorphism in elderly  
R. Poli-Frederico, M. P. Fernandes, R. Silva and K. P. Fernandes, Brazil
- D7. Supporting ergonomics in a non-traditional setting  
M. Wasik, USA
- D8. The use of surface electromyography to evaluate the muscle load in the repetitive work – case study  
P. Łach, Poland
- D9. A pilot study of pattern analysis of a hygiene mask for women to achieve the best fit  
M. Morishima and T. Mitsuno, Japan
- D10. Proposed ergonomically-designed furniture for Mexican school children  
R. Avila-Chaurand, N. Anaya-Echeverría and J. Rey-Galindo, Mexico
- D11. Neuropsychological aspects observed in a nuclear plant simulator and its relation to human reliability analysis  
A. R. Pinheiro, E. Pessoa do Prado, M. Martins, J. Gomes and E. Droguett, Brazil/Chile
- D12. Multidisciplinary user-centered design approach based on systems engineering and virtual reality simulation  
T. Ahram, M. Soares and C. Falcao, USA/Brazil
- D13. Association between physical capacity perceived and sick leave at work in workers  
R. A. Zuñiga, E. G. Ordoñez, C. L. Alban and J. C. Velasquez, Colombia
- D14. Appealing to fear vs appealing to humor in PSA discourse  
E. Malenova and M. Terskikh, Russia
- D15. Training operators of moving objects based on an assessment of their level of proficiency  
I. Petukhov, Russia
- D16. Research and implementation on fitness management system for Hubei Province public servants  
Q. Luo, China
- D17. Introduction to education 3.0 through the use of technological tools for the teaching of arts in preschool  
L. Janamejoy and S. Ortiz, Colombia
- D18. Game based learning: Analysis of the students motivation, performance and dropout in a production engineering course  
E. Silva, M. Macedo, E. Lanzer, A. Graziani and C. Teixeira, Brazil
- D19. From virtual reality to neutral buoyancy – methodologies for analyzing working posture on the moon & mars  
I. Schlacht, B. Foing, M. Benassai, S. Bringeland, B. Deml, A. Del Mastro, M. Masali, M. Cremasco, S. Nazir, J. Rittweger and H. Stevenin, Italy/Germany/Norway
- D20. Study of rippability in limestone quarries-case of the Hadjar-Soud Quarry, Algeria  
M. Boudiaf, Algeria

# Interactive Poster Demonstrations

**Poster Sessions Friday, July 29      Session Time: 13:30-15:30      Room: Atlantic Hall**

- D21. Extended use of personal factors in adaptive e-Learning environments: Moods in MOOCs  
T. Augustin, Germany
- D22. Relationships between years of licensure and driving style measured with a short simulator-based test  
J. de Winter and J. Kuipers, The Netherlands
- D23. Get me to the Dojo: An experiential learning experience  
T. Sayer and J. Foley, USA
- D24. Evaluating wayfinding behavior for spatial navigation  
I. Khan and S. Kolay, India
- D25. Motion capture technology as a method for measuring the effect of magnification lenses on dental clinician posture  
B. Branson, R. Abnos, G. King and M. Simmer-Beck, USA
- D26. Older driver's physiological response under risky driving conditions – overtaking, unprotected left turn  
S. J. Park, M. Subramaniam, S. E. Kim, S. Hong, J. H. Lee and C. M. Jo, South Korea
- D27. Emergency decision-making assessed through reaction time in two knowledge elicitation tasks  
D. Whitmer, V. Sims and M. LaGoy, USA
- D28. Research of the relation of personality traits to pilot safety performance  
W. Zou and Y. Wang, China
- D29. Recommendations for upset prevention and recovery training (UPRT) for general aviation pilots in Switzerland  
C. Muehlethaler, C. Knecht and S. Huber, Switzerland
- D30. Forced repetitive audio ads in music streaming service: More intrusiveness and worse recall  
Y. Yun and J. Yang, South Korea
- D31. The study of evaluation method for safety activity at railroad station service in consideration of user's security feeling  
K. Kiyota, Y. Tanabe and Y. Okada, Japan
- D32. Corporate governance and safety performance in high-risk industries: A complex systems approach  
T. Mariri, South Africa
- D33. Effect of firefighter boots on ankle function and dynamic postural balance  
J.-H. Kim, A. Strauch, J. Powell and A. Coca, USA
- D34. Integrated instrumentation in the evaluation of occupational hazards in shellfish farming  
G. Speck, C. Guertler, R. Pichler, W. Seiffert, G. Merino, A. Moro and E. A. Merino, Brazil
- D35. Social capital at work and its relation to professional functioning of older employees  
Z. Mockałło, Poland
- D36. Link between gaming experience and trait trust in automated systems  
S. Guznov, M. Pfahler, M. Grigsby and A. Panganiban, USA
- D37. Doing more harm than good? Parental mediation of teens following cybersecurity risks  
B. McHugh, P. Wisniewski, J. Carroll, H. Xu and M. Rosson, USA
- D38. Development and validation of the air force cyber intruder alert testbed (CIAT)  
G. Funke, G. Dye, B. Borghetti, V. Mancuso, E. Greenlee, B. Miller, L. Menke, R. Brown and A. Vieane, USA
- D39. The effects of the stimulus onset asynchrony and stimulus number of times on P300 speller performance  
S. Kitamura and H. Tanaka, Japan

# Interactive Poster Demonstrations

**Poster Sessions Friday, July 29    Session Time: 13:30-15:30    Room: Atlantic Hall**

- D40. Risks related to the use of tablet computers: A holistic vision for effective prevention  
N. Girard, and P.-Y. Therriault, Canada
- D41. Effects of biasing information on the conceptual structure of team communications  
M. Tolston, V. Finomore, G. Funke, V. Mancuso, R. Brown, L. Menke and M. Riley, USA
- D42. Usability of cellular navigation applications  
J. Louie, USA
- D43. Analyzing the usability of a dashboard display for a monitoring system on a smartphone  
M. Geden, F. Scholcover, J. Farnsworth and A. McLaughlin, USA
- D44. Ergonomic evaluation of refrigerating chamber volume of refrigerator  
H. Hu, L. Luo, A. Li, L. Ran, H. Luo, X. Zhang and C. Zhao, China
- D45. Prada lets devil dance: effect of music when people are exposed to luxury item  
S. Jang and K. Han, Korea
- D46. Catapult – machine identification of critical intelligence factors at scale  
J. Gillespie and L. Garciga, USA
- D47. Human factors in mobile gestures  
F. Sheikh and F. R. Hashmi, Pakistan
- D48. Towards a real-time driver workload estimator: An on-the-road study  
P. Van Leeuwen, R. Landman, L. Buning, T. Heffelaar, J. Hogema, J. van Hemert, J. de Winter and R. Happee, The Netherlands
- D49. Emergence of safety awareness in enterprise based on cellular automata model  
X.-H. Zhang and X.-B. Chen, China
- D50. Fatigue driving influence research and judgment  
G. Wu, Z. Liu, X. Pan, F. Chen, M. Xu, D. Feng and Z. Xia, China
- D51. Research on optimized design of bridge-tunnel linkage sections on mountainous highways considering the effect of crosswind on driver behavior  
D. Feng, K. Wu, F. Chen, X. Pan, G. Wu, M. Xu and Z. Xia, China
- D52. Sociotechnical strategies for cyber security  
E. Ceesay and K. Myers, USA
- D53. The association between sleep quality and the risky riding behaviors among motorcyclists  
Y.-C. Chen and P.-L. Chen, Taiwan

## **POSTER/DEMONSTRATION SESSIONS SATURDAY, JULY 30**

**Session Time: 10:30-12:30**

**Room: Atlantic Hall**

- B1. Color size and design of computer peripheral products of black  
C.-C. Lai and L.-W. Kuo, Taiwan
- B2. Augmented reality sandtable: Effects of topography on learning military tactics  
C. Rowan, M. Dustin and E. Peasley, USA
- B3. Methodology of risk analysis to health and occupational safety integrated for the principles of lean manufacturing  
E. Santos and L. Nunes, Brazil
- B4. Assessment of WRMSD among Brazilian dental students  
T. Coelho, S. Prestes, J. Antonucci, C. Kagawa, D. Hortelã, M. Caldana and J. R. Bastos, Brazil
- B5. Impact of pain muscle in fuel station attendants of municipality Bauru  
S. C. Prestes, M. Prestes, T. Coelho, C. Kagawa, D. Hortelã, J. R. Bastos and A. Lopes, Brazil

# Interactive Poster Demonstrations

**Poster Sessions Saturday, July 30    Session Time: 10:30-12:30    Room: Atlantic Hall**

- B6. Muscle pain incidence on fuel station attendants  
J. Antonucci, M. Prestes, T. Coelho, S. Prestes, R. Palma, J. R. Bastos  
and A. Lopes, Brazil
- B7. Work related musculoskeletal disorders in undergraduate dentistry students of Bauru, Brazil  
M. Prestes, S. Prestes, T. Coelho, C. Kagawa, J. Antonucci, A. Lopes  
and J. R. Bastos, Brazil
- B8. Visual psychophysical thresholds for perceiving objects and letters on monocular head-up displays in indoor and outdoor lighting conditions  
B. Hawes, T. Brunye and B. Westgate, USA
- B9. Examination of relationship between body composition and anaerobic power and fatigue index of male footballers aged 14 and 17  
Y. Yüksel, E. Heper and G. Aydin, Turkey
- B10. Augmented reality for the support of space exploration missions and on-ground / on-orbit operations  
D. Tedone, M. Marelllo, G. Musso, N. Frangakis, D. Oliveira, S. Agostinho  
and K. Helin, Italy/Greece/Finland/France
- B11. Whether changes of event-related potentials and frequency band responses to sensory stimuli correlate to age cognitive decline?  
M. Christov and J. Dushanova, Bulgaria
- B12. A study on communication activity and social skills of nursing organization  
Y. Mizuno, Y. Yamada, Y. Hochi, H. Takahashi, N. Shoji, H. Aida, A. Okada  
and M. Mizuno, Japan
- B13. Salivary cortisol analysis in shift workers  
A. Moro, P. Reis, I. Santos, A. Pinto and D. Reis, Brazil
- B14. Creation of a muscle activity risk modeling program  
N. Kelly and A. Piper, USA
- B15. Effects of media multi-tasking with Facebook on the enjoyment and encoding of TV episodes  
V. Oviedo, USA
- B16. GPU based parallel computation in real-time modeling of atmospheric radionuclide dispersion  
A. Pinheiro, F. Desterro, M. Santos, C. Pereira and R. Schirru, Brazil
- B17. Demo: Citrus library and applications for rapid deployment and adaptation of analysis techniques  
T. Bauer and D. Garcia, USA
- B18. Relation between glance-time at an in-vehicle HMI system and number of letters and characters displayed on it  
H. Kosaka, Japan
- B19. Quality of life and working conditions in marinas  
C. Teixeira, E. Felden, R. Andrade, M. Macedo and I. Ventre, Brazil
- B20. Applying HFACS approach to accident analysis in petro-chemical industry in China: Case study of explosion at Bi-Benzene Plant in Jilin  
Y. Gong and Y. Fan, China
- B21. The potentials and the drawbacks of various measurements in understanding workplace cognitive load  
S. McMichael, USA
- B22. Return to work time for workers with fracture by workplace accident in a rehabilitation program from Cali-Colombia  
E. F. Barona, L. O. Escobar, J. C. Velasquez and R. A. Zuñiga, Colombia
- B23. Prospects and problems of smart glasses as tools for surgery  
K. Shinohara, Japan
- B24. Wireless voting system for migrants  
D. Ekanayake, Sri Lanka

# Interactive Poster Demonstrations

**Poster Sessions Saturday, July 30    Session Time: 10:30-12:30    Room: Atlantic Hall**

- B25. Commitment of football fans in Turkey  
S. Kocaekşi, Turkey
- B26. Teaching without pain: Case study of government schools of Punjab  
M. Jamil and A. N. Elahi, Pakistan
- B27. Indigenous art forms in contemporary times  
S. Singh, India
- B28. Relationship between social skills and interpersonal communication networks of nursing organization at University Hospital in Japan  
Y. Hochi, Y. Yamada, Y. Mizuno, H. Takahashi, N. Shoji, H. Aida, A. Okada and M. Mizuno, Japan
- B29. Development of an intermittent pneumatic compression system to manage soft tissue mechanical properties  
C.-W. Lung, T.-Y. Cheng, Y.-J. Li, B.-Y. Liao and Y.-K. Jan, USA/Taiwan
- B30. Effect of expertise on fatigue proofing strategies used by emergency physicians  
P. Bérastégui and A.-S. Nyssen, Belgium
- B31. Engaging patients in the ICU using the MYICU tablet application: Early results  
S. Bruni and B. Sarnoff Lee, USA
- B32. Domestic safety and accidents risk perception by active elderly  
L. Martins, B. Barkokébas, Jr. and P. Arezes, Brazil
- B33. A study of satisfiers and dis-satisfiers for Japanese students in extracurricular activities  
Y. Nakajima, N. Shoji, T. Iwaasa and M. Mizuno, Japan
- B34. Grasping foot forms in athletes of bodily expression  
S. Izutsu, Japan
- B35. Human factors in offshore drilling and production: current knowledge and gaps  
S. C. Peres, M. S. Mannan, R. Bias, N. Quddus, L. Ahmed, W. S. Hoyle and J. C. Batarse, USA
- B36. Degradation of SMX and FLX by gamma-ray and degradation kinetics evaluation  
S. Lim, T.-H. Kim and S. Yu, Korea
- B37. The influence of team members' thinking style on the collaborative design process  
G.-T. Liu and W. Chen, China
- B38. Effects of automation reliability on structure of gaze patterns over time  
M. Tolston, G. Funke, G. Matthews, R. Wohleber, J. Lin, G. Calhoun and H. Ruff, USA
- B39. Classification of the input-error in P300 speller  
R. Kurihara and H. Tanaka, Japan
- B40. Exploratory study of self-representation from SASANG typology - focused on Korean Facebook and KakaoTalk users  
J. Y. Lee, South Korea
- B41. Motivation of older people to work: The moderating role of sense of life  
M. Warszewska-Makuch, Poland
- B42. A study on activation of on-site management in railway enterprise -focusing on occupation responsible for user's safety  
M. Wakata, Y. Okada and K. Takahashi, Japan
- B43. Effects of reinforcements, pockets, and visibility marking of firefighter ensembles on fabric characteristics and physiological responses  
A. Coca, Y. Seo, T. Quinn, T. Wu, R. Roberge and J.-H. Kim, USA
- B44. Parallax effects on head mounted display performance  
C. McClernon and V. Finomore, USA
- B45. Ergonomic wearable garments and interface for childhood overweight and obesity reduction  
M. Pereira, A. Dias, J. Lucas, R. Miguel and N. Garcia, Portugal
- B46. Psychosocial issues of work-related musculoskeletal injuries and adaptation: A phenomenological study  
M. Alnaser, Kuwait

# Interactive Poster Demonstrations

**Poster Sessions Saturday, July 30    Session Time: 10:30-12:30    Room: Atlantic Hall**

- B47. The way to use the guidelines for supporting resilience enhancement: From verifying effectiveness using before-after comparison test design of two fitness centers  
N. Shoji, T. Iwaasa, Y. Nakajima and M. Mizuno, Japan
- B48. Effects of alarm system type and automation experience on trust-reliability calibration  
X. J. Yang and J. Shah, USA
- B49. A contextual inquiry in sport performance using design visualization tools  
M. L. Levin, L. Frankel and L. MacEachern, Canada
- B50. Guidelines to determine training value added of emerging and disruptive technologies: A practitioner's approach  
S. Scielzo, A. Knowles and R. Fudge, USA
- B51. All about fashion  
H. Waznah, Saudi Arabia
- B52. Approaches to reduce violations in nuclear power plant operation  
H.-C. Lee, South Korea
- B53. Interaction analysis of enterprise security system  
Y. Xu and X.-B. Chen, China
- B54. The use of digital games as support for the work of civil defense in training for disaster prevention: a survey, analysis and validation of user preferences  
R. Bitencourt, R. Riesemberg, P. Ioungblood, M. Okumura, E. Farias de Souza, O. Canciglieri, Jr. and J. Dos Santos, Brazil

## **POSTER/DEMONSTRATION SESSIONS SATURDAY, JULY 30**

**Session Time: 13:30-15:30**

**Room: Atlantic Hall**

- E1. Binary Probit modeling of driver behavior in school zones in western Puerto Rico  
J. G. Compré, E. G. Vélez and I. Cruzado, Puerto Rico
- E2. A study on field dependent-independent learners' visual searching and learning achievement in multimedia learning environments  
H.-C. Liu, Taiwan
- E3. Quality of work life, depression and anxiety in administrative staff of an institution of higher education  
R. Gonzalez-Baltazar, B. Hidalgo-González, V. de Sandi, S. León-Cortés, M. Contreras-Estrada, M. Aldrete-Rodríguez and G. Hidalgo-Santacruz, Mexico
- E4. Reliability analysis of a standardized military mission oriented obstacle course  
K. Mitchell, J. Batty, M. Coyne, L. DeSimone and C. K. Bensele, USA
- E5. Using an EEG-controlled video game to measure and train mindfulness  
P. Barclay and C. Bowers, USA
- E6. Decision support system for assessment of vocational aptitude of man-machine systems operators  
I. Petukhov, Russia
- E7. Trunk sway increases with fatigue in quay crane operators during a realistic work shift performed in a simulated environment  
B. Leban, G. Fancello, M. Pau and P. Fadda, Italy
- E8. Analysis in the behavior of young people with learning difficulties in the interaction with video games  
J. Delgado, Colombia
- E9. The effect of travel style in affecting travel experience and value in a reality-based game environment  
L. Chung and J. Lee, Taiwan



# Interactive Poster Demonstrations

**Poster Sessions Saturday, July 30    Session Time: 13:30-15:30    Room: Atlantic Hall**

- E10. Research on energy expenditure detection based on three-dimensional acceleration  
Q. Luo and Y. Wu, China
- E11. Interhemispheric modulation of noninvasive brain stimulation on cortical excitability  
J. Jeon, Y. Park and D. Kim, South Korea
- E12. Evaluating the meaning of a text  
S. Fadyushin and S. Liu, Russia
- E13. Lower back pain supermarket workers  
C. Teixeira, R. Andrade, E. Felden and M. Macedo, Brazil
- E14. Musical practices and its relationships with orchestra instrumentalists musculoskeletal complaints  
C. Teixeira, F. Kothe, R. Andrade, E. Felden and E. Merino, Brazil
- E15. Vehicle driver seat ergonomics  
A. Joseph, India
- E16. Demonstration of vibro-tactile display to identify and locate aircraft for air force combat controllers  
V. Finomore, C. McClernon, M. Bray, J. Read, C. Stader and C. Brill, USA
- E17. Can the context stigmatize the assistive technology? A preliminary study using virtual environments  
L. Carneiro, T. Oliveira, P. Noriega and F. Rebelo, Portugal
- E18. Sensitivity of postural control to perturbations between diabetic neuropathy and non-neuropathy  
B. Kim and T. Kim, USA
- E19. From user scenario to design strategy: Practice research on product innovation  
J. Hu and K. Zhou, China
- E20. Participatory ergonomic approach for workplace improvements: A case study in an industrial plant  
H. Fonseca, N. Santos, I. Loureiro and P. Arezes, Portugal
- E21. Effect of sensation threshold and perturbation direction on postural control  
T. Kim and S. Kim, USA
- E22. Stress and coaching  
G. I. López Reyes and S. M. Vazquez Soto, Mexico
- E23. An eye movement research on 2D interactive game design  
N. Lin, L. Feng, T. Kang, S. Fan and Y. Zhang, China
- E24. Life cycle cost and reliability analysis to evaluate gas destination  
L. Paiva, F. L. Pessoa and J. E. Dias, Jr., Brazil
- E25. A gain from break: Re-boosting prolonged-sitting computer users' momentum through intermittent computer break program  
S.-C. Wang, H.-T. Chen and J.-Y. Chern, Taiwan
- E26. Does comparing one's physical activity with others influence self-esteem?  
E. S. Park and K. Han, Korea
- E27. Gauging college students' interest in emergency warnings  
D. Whitmer and V. Sims, USA
- E28. Skip ad!: The effect of skip button style on attention and memory  
J. S. Yang and Y. J. Yun, South Korea
- E29. Behavioral marker system for a simulation-based stress and workload management training for air traffic controllers  
C. Knecht and C. Muehlethaler, Switzerland
- E30. Rotational image: Way too much!  
S. Ryu, Korea
- E31. Modeling decision flow dynamics for the reliable assessment of human performance, crew size and total ownership cost  
T. Ahram, W. Karwowski, S. Sala-Diakanda and H. Jiang, USA

# Interactive Poster Demonstrations

**Poster Sessions Saturday, July 30    Session Time: 13:30-15:30    Room: Atlantic Hall**

- E32. Effects of dehydration on cognitive function and mood state while wearing firefighter ensembles  
Y. Seo, T. Quinn, T. Wu, J.-H. Kim and A. Coca, USA
- E33. User centered design applied to USAF civil engineering explosive ordnance disposal tools and jigs  
B. Shields, V. Valencia, A. Thal, J. Wander, M. Miller and J. Parr, USA
- E34. Anthropometric differences among population groups and the impact on military clothing and equipment design  
H. J. Choi and T. Garlie, USA
- E35. Total forearm muscle activities in various hand postures  
K.-S. Lee, J. Ha, S. Yoo and M.-C. Jung, Korea
- E36. Implementation of integrated instrumentation in the health field  
G. Speck, C. Guertler, R. Pichler, W. Seiffert, S. Merino, A. Moro and E. A. Merino, Brazil
- E37. Traffic patterns of nurses during pain management of patients  
H. Salehi, P. Pennathur, L. Cullen, L. Onsongo, T. Reimer and M. Farrington, USA
- E38. Stress and workload profiles of network analysis: Not all tasks are created equal  
E. Greenlee, G. Funke, J. Warm, B. Sawyer, V. Finomore, V. Mancuso, M. Funke and G. Matthews, USA
- E39. Fundamental study on BCI-VR immersive with rubber hand illusion  
S. Kaneta and H. Tanaka, Japan
- E40. Eye tracking based analysis of cognitive load related to work with computer  
J. Kamińska and D. Roman-Liu, Poland
- E41. Neural feedback of decision-making for emotive drivers  
S. Li, W. Zhang and P. Hancock, China/USA
- E42. Monitoring large teams for changes in physiological coupling using multivariate recurrence quantification analysis and Bayesian change-point detection methods  
M. Tolston, C. Best, G. Funke, L. Menke and A. Dukes, USA
- E43. Making math move: An interactive educational game for minority students to practice pre-algebraic concepts  
T. Smith and J. E. Gilbert, USA
- E44. Merging human factors in sports and education to increase college access  
S. Thomas and J. Gilbert, USA
- E45. Ergonomics in clothing: Importance of thermal comfort in a typical refrigerator in the Brazilian beef industry  
M. Q. Núñez, I. Messias and C. Bartholomei, Brazil
- E46. Designing an ergonomic office environment for disabled persons: Pakistan in consideration  
S. Hameed, Pakistan
- E47. Moving towards digital manufacturing in the Arab region: A 3D printing workshop experience  
H. Al-Khalifa and N. AlRajhi, Saudi Arabia
- E48. Valuation of perceived quality for in-vehicle auditory signals with psychoacoustic attributes  
C.-F. Chi and R. Dewi, Taiwan
- E49. The impacts of driver behavior by time of day on truck safety  
C. Chen, USA
- E50. Relationships between gait speed and dorsiflexion ranges of motion in multiple sclerosis  
F. Yang, M. Sanchez and E. Estrada, USA
- E51. Study on impact of organization factors of employees' safety behavior  
Y. Xu and X.-B. Chen, China
- E52. The creativity in a virtual world: A pilot study  
S. -W. Huang and Y. -C. Hsu, Taiwan

# Interactive Poster Demonstrations

**Poster Sessions Saturday, July 30    Session Time: 13:30-15:30    Room: Atlantic Hall**

E53. Probabilistic analysis of wake turbulence behavior  
J. Roa, USA

## **POSTER SESSION SUNDAY, JULY 31**

**Session Time: 10:30-12:30**

**Room: Atlantic Hall**

- C1. Server behaviors in queueing systems  
P. Harper, UK
- C2. Air traffic controller duty roster method research  
W. P. Zhai, China
- C3. Cytotoxic drug manipulation and its impact on occupational safety of hospital workers  
J. Silva, P. Arezes, R. Schierl and N. Costa, Portugal
- C4. Characterizing and measuring maliciousness for cyber security risk assessment  
L. Flora, D. Henshel and M. Cains, USA
- C5. Quality of work-life in metal industry by Walton Model inventory  
A. P. Xavier, F. Torres, M. Canteri and E. Pizybski, Brazil
- C6. Monitoring ambient air quality for health impact assessment  
A. Ferreira, Portugal
- C7. Management of enterprise of the future in the ecosystem of the internet of things  
L. Sulkowski and D. Kacqorowska-Spychalska, Poland
- C8. Relevant aspects of human error and its effect on the quality of the product. Study in the Maquiladora industry  
T. Carrillo-Gutiérrez, R. M. Reyes, J. De la Riva Rodríguez and J. Sanchez-Leal, México
- C9. Evaluation of concrete drilling bit wear for silica dust and noise generation  
P. Carty, USA
- C10. Ergonomic Hazards Mapping System (EHMS) for musculoskeletal disorders detection  
M. Delgado-Bahena, R. Barrios-Perez, M. Contreras-Valenzuela and R. L. Sesenes, Mexico
- C11. Ergonomic evaluation in the administrative sector for workers with display screen equipment - A case study for the prevention of work-related musculoskeletal disorders with help of thermographic images  
A. Ferreira, J. Almeida, J. Figueiredo and A. Oliveira, Portugal
- C12. Gender bias in the perception of outstanding leadership in the maritime industry  
B. A. B. Fjærli, S. Nazir and K. Øvergård, Norway
- C13. Toward a taxonomy of the unintentional discharge of firearms  
J. O'Neill, D. Seefeldt and W. Lewinski, USA
- C14. Training of top-management reserves for railway transport  
V. Samsonkin, Ukraine
- C15. Evaluation of symptoms skeletal muscles in professional public single system Itatinga, São Paulo, Brazil: Associated factors  
C. A. Kagawa, T. Coelho, J. R. Bastos and L. F. Ayres, Brazil
- C16. Impact analysis of symptoms of pain and the practice of sports in the quality of life of dental students  
T. Coelho, C. A. Kagawa, J. R. Bastos, J. Antonucci, S. Prestes, R. Palma, D. Hortelã and M. Caldana, Brazil
- C17. Hearing conservation programs – the way for improved hearing loss prevention practices  
I. Wictor, A. P. Xavier and A. Michalowski, Brazil

# Interactive Poster Demonstrations

**Poster Session Sunday, July 31      Session Time: 10:30-12:30      Room: Atlantic Hall**

- C18. Near-infrared spectroscopy study of dorsolateral prefrontal cortex activation during Toulouse N-back task  
K. Mandrick, V. Peysakhovich and M. Causse, France
- C19. Evaluation of ergonomic risk factors and presence of musculoskeletal symptoms in doctors with specialization in echography  
E. Ochoa, E. Gonzalez, E. Herrera and J.-P. Becker, Mexico
- C20. Education for sustainable development  
A. Nasibulina, Russian
- C21. Survey of strategic design for public transportation  
A. Bayat, Iran
- C22. Increasing control room effectiveness and security through proximity-based interaction technologies  
M. Boecker, Germany
- C23. Research and implementation on energy expenditure monitoring system based on wireless body area network  
Q. Luo and Y. Wu, China
- C24. Evaluation of unloading effect of muscle activation depending on the attachment positions of a muscle assistive cloth  
K. Ogawa, K. Shimatani, M. Hasegawa, A. Kadowaki, K. Takahashi, T. Tsuji and Y. Kurita, Japan
- C25. Impact of the advance fabrics on the human biomechanics: Example of anti-fatigue mats  
R. Taiar, T. Ahram, N. Gardan, A. Schneider and D. Sifaki-Pistolla, France/Greece/USA
- C26. Ergonomic evaluation in semi-mechanized forest harvest operations  
L. Freitas, M. Sousa Lira and A. Pinto Leite, Brazil
- C27. To investigate the relationship between leg strength, flexibility, dribbling and smash hit performance in 11-13 years boys soccer  
C. Polat, M. Hekim and Y. Yüksel, Turkey
- C28. Development of the elderly healthcare monitoring system with IoT  
S. J. Park, M. Subramaniyam, S. E. Kim, S. Hong, J. H. Lee, C. M. Jo and Y. Seo, South Korea
- C29. Using forcing functions to prevent never events in healthcare  
P. Young and M. Mariyaselvam, UK
- C30. Managing ergonomics programs using specialized software  
J. Vaughan, USA
- C31. VIDINT – Operational experiment approach to internet video analysis  
W. Prugh and N. Berry, USA
- C32. A development of closeness visualization app based on behavioral data in smart phone environment  
S. Yim, S. Lee, S. Kim, J. Lee, J. Jeon, T. Lee and J. Hong, Korea
- C33. Transfer of control in automated driving: the ecological validity of common simulated transfer scenarios  
T. Wright, W. Horrey, M. Lesch and D. Fisher, USA
- C34. The human-systems integration (HSI) concept, applied in an observation of a car crash simulation  
N. Matias, N. Carvalho, P. Sena, C. Araújo and R. Ribeiro, Brazil
- C35. Review on evaluation methods to pre-detect the stroke using wearable devices  
S. N. Min, K.-S. Lee, D. J. Kim, S. J. Park, Y. S. Seo, M. Subramaniyam and S. E. Kim, South Korea
- C36. Electromyographic assessments of muscle activation patterns during driving a power wheelchair  
C.-W. Lung, T.-Y. Cheng, Y.-K. Jan and B.-Y. Liau, Taiwan/USA
- C37. Optimizing clinician workflow using patient sensitive checklists  
S. Bruni and M. Cocchi, USA

# Interactive Poster Demonstrations

**Poster Session Sunday, July 31      Session Time: 10:30-12:30      Room: Atlantic Hall**

- C38. Impact of weight on military mission oriented obstacle course performance  
K. Mitchell, J. Batty, M. Coyne, L. DeSimone, H. J. Choi, K. Gregorczyk  
and C. Bensel, USA
- C39. Individual factors related to unsafe workplace acts: Features of workers who  
tend to act unsafely  
A. Hirose and D. Takeda, Japan
- C40. Ergonomic risks in the fish processing industry: A systematic review  
C. Guertler, G. Speck, R. Pichler, I. Medeiros, V. Batalha, G. Merino,  
E. A. Merino, W. Seiffert and A. Moro, Brazil
- C41. Research methods with active involvement of the elderly: A literature review  
L. Martins, J. Baptista and P. Arezes, Brazil
- C42. Using technology in the classroom  
J. V. Garcia Vázquez, H. A. Garcia Vázquez and S. M. Vázquez Soto, México
- C43. Complacency in a multiple autonomous UAV task: Effects on trust and  
multidimensional stress  
A. Panganiban, USA
- C44. The effects of a trust violation and trust repair in a distributed team  
decision-making task: Exploring the affective component of trust  
C. Fallon, A. Panganiban, P. Chiu and G. Matthews, USA
- C45. Operator's context and trust in automation visualization (OCTAV): A framework  
and toolkit to support transparency and trust in human-autonomous system  
teams  
H. Oonk, M. Ngo, P. Le, R. Moore, G. Averett, D. Beer, R. Kurata and  
M. Eilders, USA
- C46. Features of immersive virtual environment important for tasks requiring the use  
of egocentric frames of reference  
M. Kozhevnikov and M. Kozhevnikov, USA/Singapore
- C47. Evaluation of display concepts for helmet mounted augmented reality displays  
for battlefield airmen  
V. Finomore, A. Calvo, A. Eastin and T. McNitt, USA
- C48. Evaluate the effectiveness of buffer management in inventory replenishment  
policies for short life-cycle product  
D. N. Ngo, S. Wu and S. H. Chang, Taiwan
- C49. Kid's decision making in bicultural art experience, case study: Brazilian 7 to 9  
years old children  
R. Afhami and R. Khorshidian, Iran
- C50. Case study: training and training decay with a combination product for  
hemophilia patients  
T. Chun, USA
- C51. Hospital ergonomics – Case study of a Central Hospital  
A. Ferreira, J. Almeida, J. Figueiredo, C.a Vieira and L. Fulgêncio, Portugal
- C52. Effect of toluene and noise occupational exposure in the genesis of hearing loss  
A. Baltazar, P. Arezes and A. Ferreira, Portugal
- C53. An experimental evaluation of the user friendliness of Gmail, Yahoo and Outlook  
A. Alhaider, D. B. Hani, M. Khasawneh and A. Alwuhayb, USA

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C. Makatsoris, UK  
E. Markopoulos, Greece  
Š. Marsina, Slovakia  
M. Naaranoja, Finland  
P. Odrakiewicz, Poland  
P. Paajanen, Finland  
A. Piirto, Finland  
V. Salminen, Finland  
M. Salo, Finland  
A. Segev, South Korea  
A. Tuominen, Finland  
A. Visa, Finland

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E. Attaianesi, Italy  
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J. da Silva, Brazil  
E. Duarte, Portugal  
J. Duarte, Portugal  
E. Filgueiras, Portugal  
M. Goebel, South Africa  
L. Macedo, Brazil  
B. Mrugalska, Poland  
P. Noriega, Portugal  
M. Okimoto, Brazil  
L. Paschoarelli, Brazil  
L. Prado, Mexico  
S. Singh, India  
P. Soni, Thailand  
S. Summerskill, UK  
M. Sun, USA  
B. Thomas, The Netherlands  
S. Ward, Australia  
T. Yamaoka, Japan

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S. Albolino, Italy  
V. Banuls Silvera, Spain  
B. Barkokebas Junior, Brazil  
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R. Matos, Brazil  
J. Meliá, Spain  
R. Melo, Portugal  
M. Menozzi, Switzerland  
A. Miguel, Portugal  
D. Nathanael, Greece  
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G. Szabo, Hungary  
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## GENERAL PROGRAM CHAIR

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tahram@ahfe.org

**TUTORIALS CHAIR**  
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## APPLIED HUMAN FACTORS AND ERGONOMICS

Proceedings of the 7th International Conference on Applied Human Factors and Ergonomics (AHFE 2016) and the Affiliated Conferences  
July 27-31, 2016, Walt Disney World®, Orlando, Florida, USA

**Dr. Tareq Z. Ahram & Dr. Waldemar Karwowski**  
**Orlando, Florida, USA (Eds)**

This set of 22 volumes gathers the proceedings of the 7th International Conference on Applied Human Factors and Ergonomics (AHFE 2016) and the Affiliated Conferences, held July 27-31, 2016, in Walt Disney World®, Orlando, Florida, USA. By highlighting the latest theories and models, as well as cutting-edge technologies and applications, and by combining findings from a range of disciplines including engineering, design, robotics, healthcare, transportation, simulation, management and computer science, the set provides researchers and practitioners alike with a comprehensive, timely guide on human factors research and applications. It also offers an excellent source of innovative ideas to stimulate future discussions, collaborations and developments.

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Advances in Social & Occupational Ergonomics

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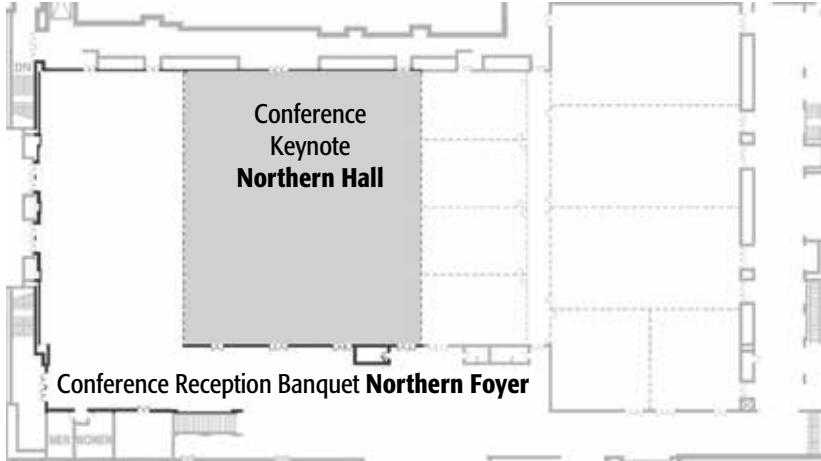
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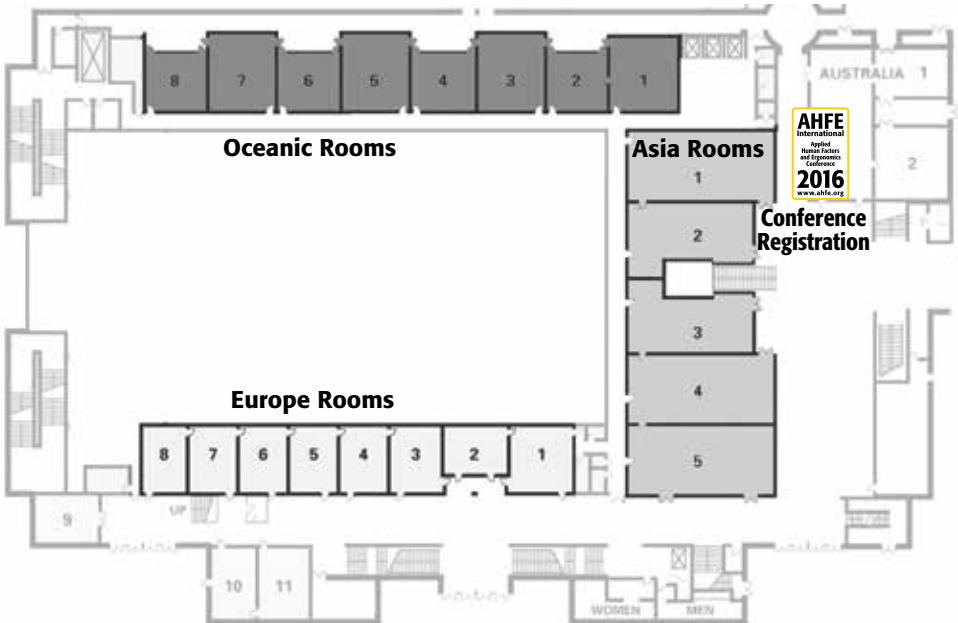
# General Layout

## FIFTH LEVEL WALT DISNEY WORLD® DOLPHIN HOTEL.

Conference Keynote will be held at Northern Hall (Fifth Level) and conference Reception Banquet will be held at Northern Foyer (Fifth Level) at the Walt Disney World® Dolphin Hotel.



## LOBBY LEVEL WALT DISNEY WORLD® DOLPHIN HOTEL.



## GROUND LEVEL WALT DISNEY WORLD® DOLPHIN HOTEL.

All conference exhibits, posters/demonstrations, and coffee breaks will be held in the Atlantic Hall on the Ground Level at the Walt Disney World® Dolphin Hotel.



# Exhibits Atlantic Hall

## EXHIBITION HOURS

Exhibitor Setup: Thursday, 28 July, 13:00 -17:00

Exhibitor Setup: Friday, 29 July, 8:00 -10:00

Exhibit Hours on Friday, 29 July, 11:00 to 17:00

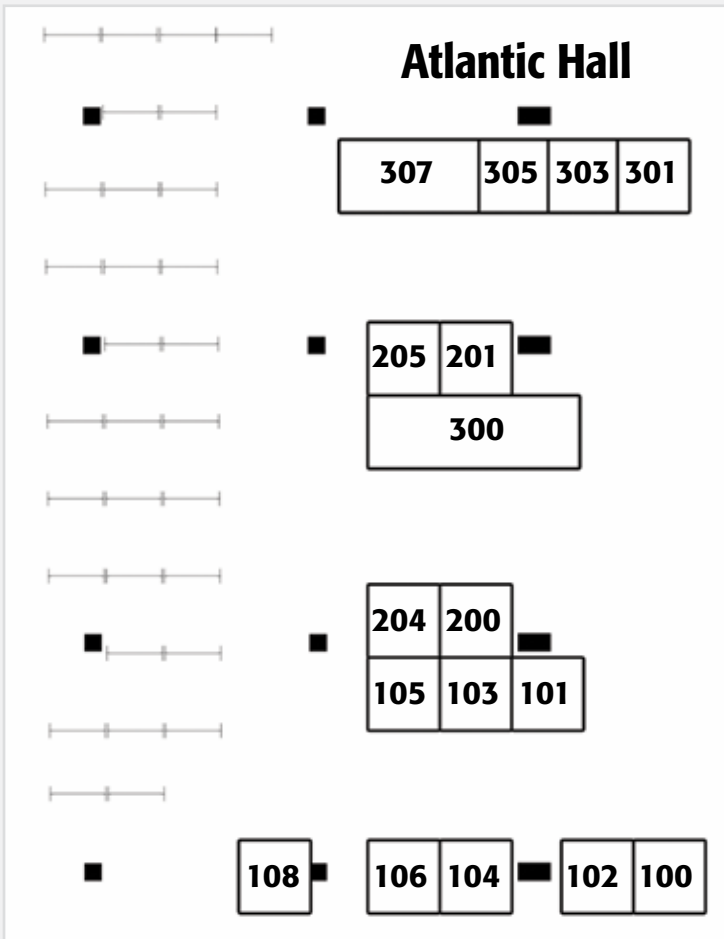
Exhibit Hours on Saturday, 30 July: 10:00 to 17:00

Exhibit Hours on Sunday, 31 July: 10:00 to 14:00

Exhibit Removal on Sunday, 31 July: 14:00 to 16:00

EXHIBIT SPACE	COMPANY NAME AND WEB SITE
101	AHFE 2017 - <a href="http://www.ahfe2017.org">www.ahfe2017.org</a>
103	Via, Inc. - <a href="http://www.viaseating.com">www.viaseating.com</a>
105	Smart Eye - <a href="http://www.smarteye.se">www.smarteye.se</a>
200	Hippus N.V. - <a href="http://handshoemouse.com">handshoemouse.com</a>
201	NexGen Ergonomics Inc. - <a href="http://www.nexgenergo.com">www.nexgenergo.com</a>
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205	Noraxon USA, Inc. - <a href="http://www.noraxon.com">www.noraxon.com</a>
300	CRC Press - Taylor & Francis - <a href="http://www.taylorandfrancis.com">www.taylorandfrancis.com</a>
301	DevonWay - <a href="http://www.devonway.com">www.devonway.com</a>
303	UMICH Center for Ergonomics - <a href="http://centerforergonomics.org">centerforergonomics.org</a>
305	De La Rosa Research and Design. - <a href="http://www.delarosaresearch.com">www.delarosaresearch.com</a>
307	Springer International Publishing AG - <a href="http://www.springer.com">www.springer.com</a>

# Layout of the Exhibit Booths



# Conference

## Track Chairs 2016

Conference Track	Chair/Co-Chairs
1st International Conference on Human Factors and Simulation	D. Cassenti, Chair
1st international Conference on Cognitive Computing	B. Amaba, Chair
1st International Conference on Design for Inclusion	G. Di Bucchianico, Co-Chair P. Kercher, Co-Chair
1st International Conference on Human Factors in Management and Leadership	T. Barath, Co-Chair S. Nazir, Co-Chair
2nd International Conference on Advances in Human Factors in Cybersecurity	J. Lockett-Reynolds, Co-Chair D. Nicholson, Co-Chair
2nd International Conference on Human Factors, Business Management and Society	J. Kantola, Co-Chair H. Vanharanta, Co-Chair
2nd International Conference on Human Factors and Systems Interaction	I. L. Nunes, Chair
2nd International Conference on Human Factors in Robots and Unmanned Systems	P. Savage-Knepshield, Co-Chair J. Chen, Co-Chair
2nd International Conference on Human Factors in Sports and Outdoor Recreation	P. Salmon, Co-Chair A. C. Macquet, Co-Chair
2nd International Conference on Human Factors in Energy: Oil, Gas, Nuclear and Electric Power Industries	S. Cetiner, Co-Chair P. Fechtelkötter, Co-Chair M. Legatt, Co-Chair
2nd International Conference on Human Factors in Training, Education, and Learning Sciences	T. Andre, Co-Chair R. Ford, Co-Chair
3rd International Conference on Safety Management and Human Factors	P. Arezes, Chair
3rd International IBM Conference on Human Factors, Software, and Systems Engineering	B. Amaba, Chair
3rd International Conference on Human Factors and Sustainable Infrastructure	J. Charytonowicz, Chair
4th International Conference on The Human Side of Service Engineering	L. Freund, Co-Chair W. Cellary, Co-Chair
4th International Conference on Affective and Pleasurable Design	C. Shin Co-Chair W. Chung Co-Chair
4th International Conference on Ergonomics In Design	M. Soares, Co-Chair F. Rebelo, Co-Chair
4th International Conference on Human Factors in Transportation	Road and Rail: N. Stanton, Chair Aviation: S. Landry, Chair Maritime: G. Di Bucchianico, Co-Chair A. Vallicelli, Co-Chair
5th International Conference on Cross-Cultural Decision Making	M. Hoffman, Co-Chair S. Schatz, Co-Chair
5th International Conference on Human Factors and Ergonomics in Healthcare	V. Duffy, Co-Chair N. Lightner, Co-Chair
5th International Conference on Applied Digital Human Modeling and Simulation	V. Duffy, Chair
17th International Conference on The Human Aspects of Advanced Manufacturing (HAAMAHA): Manufacturing Enterprises in a Digital World	S. Trzcielinski, Co-Chair C. Schlick, Co-Chair
Ergonomics Modeling, Usability & Special Populations	M. Soares, Co-Chair C. Falcao, Co-Chair T. Ahram, Co-Chair
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# AHFE International 2017

8<sup>th</sup> International Conference on Applied Human Factors and Ergonomics

jointly with

- 1<sup>st</sup> International Conference on Human Factors and Wearable Technologies
- 1<sup>st</sup> International Conference on Human Factors and Medical Devices
- 1<sup>st</sup> International Conference on Human Factors and Game Design
- 2<sup>nd</sup> International Conference on Design for Inclusion
- 2<sup>nd</sup> International Conference on Cognitive Computing
- 2<sup>nd</sup> International Conference on Human Factors and Simulation
- 2<sup>nd</sup> International Conference on Human Factors in Management and Leadership
- 3<sup>rd</sup> International Conference on Human Factors in Cybersecurity
- 3<sup>rd</sup> International Conference on Human Factors and Systems Interaction
- 3<sup>rd</sup> International Conference on Human Factors in Robots and Unmanned Systems
- 3<sup>rd</sup> International Conference on Human Factors in Sports and Outdoor Recreation
- 3<sup>rd</sup> International Conference on Human Factors, Business Management and Society
- 3<sup>rd</sup> International Conference on Human Factors in Energy:  
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- 3<sup>rd</sup> International Conference on Human Factors in Training, Education, and Learning Sciences
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- 5<sup>th</sup> International Conference on Human Factors in Transportation
- 5<sup>th</sup> International Conference on Ergonomics in Design
- 6<sup>th</sup> International Conference on Cross-Cultural Decision Making
- 6<sup>th</sup> International Conference on Human Factors and Ergonomics in Healthcare
- 6<sup>th</sup> International Conference on Digital Human Modeling and Applied Optimization
- 18<sup>th</sup> International Conference on The Human Aspects of Advanced  
Manufacturing (HAAMAHA): Managing Enterprise of the Future

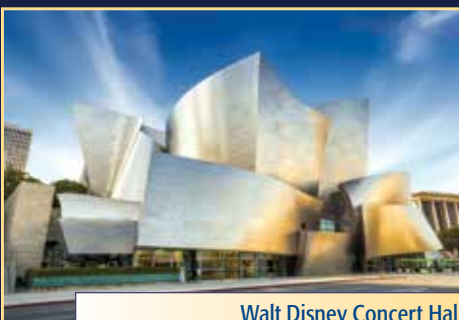
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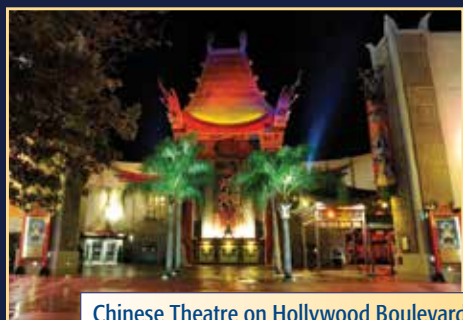
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