



# 2025 **AHFE** International

**16th International Conference on  
Applied Human Factors and  
Ergonomics (AHFE 2025) and the  
Affiliated Conferences**

## **Final Program**

**July 26-30, 2025**








**JW Marriott Bonnet Creek Resort  
Orlando, Florida**



**WWW.AHFE.ORG**

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# Opening Plenary Session and Keynote Address

17:30-18:30 (EDT), Saturday, July 26, 2025  
JW Marriott Orlando Bonnet Creek Resort

## INTRODUCTORY REMARKS

General Conference Chair



## BEYOND USER INTERFACES: CRAFTING INTELLIGENT, HUMAN-CENTRIC DIGITAL EXPERIENCES

### Dr. Kay Stanney

Design Interactive, USA

**Keynote Summary:** The keynote will explore the dynamic intersection of human-centered design and artificial intelligence (AI), examining how design has evolved to better meet user needs in an increasingly digital world. It will highlight the transformative role of AI in enhancing user experiences through predictive analytics, personalized interfaces, and more. The talk will also explore how the integration of AI with the Internet of Things (IoT) and massive sensor data can create a more seamless and symbiotic relationship between humans and systems. This includes discussing the potential benefits, such as improved efficiency and user satisfaction, as well as the possible drawbacks, including privacy concerns and the risk of over-reliance on technology. By addressing these aspects, the keynote aims to provide a comprehensive view of the opportunities and challenges in achieving a harmonious balance between human-centered design and AI in the era of rapid digital transformation.

**Bio:** Kay Stanney is CEO and Founder of Design Interactive, a company dedicated to empowering people through innovative technology. She is a leading figure in eXtended Reality (XR) systems, focusing on cybersickness, training, and human performance. Her research has significantly influenced the design of XR headsets and immersive experiences for Universal Studios, Disney, Chevron, Procter & Gamble, and military applications. In 2019, she was inducted into the National Academy of Engineering for her contributions to human factors engineering and virtual reality. Dr. Stanney has been instrumental in formalizing XR research and development, serving as editor of the Handbook of Virtual Environments and co-founding key conferences and groups in the field.

**Access to the Conference Scientific and Technical Program  
will be available through the AHFE Submission System**

CONFERENCE RECEPTION: SATURDAY, JULY 26, 2025 • 18:30-22:00 (EDT)  
JW MARRIOTT ORLANDO BONNET CREEK RESORT  
(BADGE REQUIRED)

# Tutorials

Conference program schedule is listed in Eastern Daylight Time (EDT) - Florida Timezone

## PRE-CONFERENCE TUTORIALS

Half-day tutorials at introductory, intermediate, and advanced levels will cover the entire spectrum of the conference. Tutorials will be offered on July 26, 2025. Tutorial registration is required. Tutorial coffee breaks on July 26 will be held in the Foyer.

### JULY 26, 2025

TUTORIAL GROUP A - 9:00 - 11:30 (EDT)		Room
T-1	<b>Ubiquitous Health Monitoring and Assessment of Human Psychophysiology Using Remote Measurement and AI (Live Tutorial Onsite)</b> Presenters: Abhijit Sarka and Lynn Abbott, Virginia Tech Transportation Institute	AHFE 1: Ibis
T-2	<b>Fundamentals in Data Visualization and Dashboard Design (Live Tutorial Onsite)</b> Presenter: Abbas Moallem, San Jose State University	AHFE 2: Osprey
T-4	<b>Effective Design Reviews: How to Give and Receive Meaningful, Actionable Design Feedback (Live Tutorial Onsite)</b> Presenter: Everett McKay, UX Design Edge	AHFE 3: Heron

### JULY 26, 2025

TUTORIAL GROUP B - 12:00 - 14:00 (EDT)		Room
T-5	<b>Great UX Design: Ten Steps to a Great User Experience (Live Tutorial Onsite)</b> Presenter: Everett McKay, UX Design Edge	AHFE 1: Ibis
T-6	<b>Human Factors and Cybersecurity (Live Tutorial Onsite)</b> Presenter: Abbas Moallem, San Jose State University	AHFE 2: Osprey
T-7	<b>Towards Data Science: Enhancing Ergonomics through Predictive Analytics (Live Tutorial Onsite)</b> Presenter: Javed Anjum Sheikh, Fazaia College of Education for Women / Air University	AHFE 3: Heron
T-9	<b>T-9: Eye Tracking Methods and Applications (Recorded Tutorial)</b> Presenter: Jan Watson, Drexel University	AHFE 4: Cardinal

### JULY 26, 2025

TUTORIAL GROUP C - 14:00 - 16:00 (EDT)		Room
T-10	<b>Human-Centered and Explainable AI: Foundations and Applications in Medicine (Live Tutorial Onsite)</b> Presenter: Rayan Ebnali Harari, Harvard Medical School	AHFE 1: Ibis
T-13	<b>Designing Ergonomically Smart Workplaces with AI and User-Centered Design (Live Tutorial Onsite)</b> Presenter: Javed Anjum Sheikh, Fazaia College of Education for Women / Air University	AHFE 2: Osprey
T-14	<b>T-14 Cognitive Neuroscience for the Human Factors Practitioner and Fundamentals of Brain Imaging (Recorded Tutorial)</b> Presenter: Adrian Curtin, Drexel University	AHFE 3: Heron

# Conference Tracks

TRACK	ACRONYM
Human Factors in Accessibility, Assistive Technology and Digital Environments	AATDE
Human Factors in Artificial Intelligence and Social Computing	AISC
Affective and Pleasurable Design	APD
Transportation: Aviation and Space	AVI
Cognitive Computing and Internet of Things (IoT)	CCIoT
Creativity, Innovation and Entrepreneurship	CIE
Neuroergonomics & Cognitive Engineering	CN
Human Factors in Cybersecurity	CYBER
Digital Human Modeling and Applied Optimization	DHMAO
Design for Inclusion	DI
Ergonomics in Design	ED
Human Factors and Ergonomics in Healthcare and Medical Devices	EHMD
Human Factors in Energy: Oil, Gas, Nuclear and Electric Power Industries	ENERGY
Global Issues Challenge: Challenges in AI at the Human Level	GIC
Human-Computer Interaction & Emerging Technologies	HCI
Human Dynamics and Design for the Development of Contemporary Societies	HDCS
Human Error, Reliability, Resilience, and Performance	HERRP
Human Factors in Aging and Special Needs	HFAS
Human Factors for Apparel and Textile Engineering	HFATE
Human Factors, Business Management and Society	HFBMS
Human Factors in Communication of Design	HFCD
Human Factors in Virtual Environments and Game Design	HFGD
Human Factors in Robots, Drones and Unmanned Systems	HFRDUS
Human Factors and Simulation	HFSIM
Human Factors, Software and Systems Engineering	HFSSE
Human Factors and Wearable Technologies	HFWT
Health Informatics and Biomedical Engineering Applications	HIBEA
The Human Side of Service Engineering	HSSE
Interdisciplinary Practice in Industrial Design	IPID
Kansei Engineering	KE
Transportation: Maritime	MAR
The Human Aspects of Advanced Manufacturing: Managing Enterprise of the Future	MFG
Physical Ergonomics & Human Factors	PEHF
Human Factors in Product Evaluation and Quality	PEQ
Preventive Medicine and Innovative Agonology (PMIA)	PMIA
Transportation: Road and Rail	RR
Sustainable Built Environment	SBE
Human Factors in Sports, Injury Prevention and Outdoor Recreation	SIPOR
Safety Management and Human Factors	SMHF
Social & Occupational Ergonomics	SOE
Human Factors, Architecture, Sustainable Urban Planning and Infrastructure	SUPI
Human Factors and Systems Interaction	SYSI
Human Factors in Training, Education, and Learning Sciences	TELS
Usability and User Experience	UUE

# Conference at a Glance

Conference program schedule is listed in Eastern Daylight Time (EDT) - Florida Timezone

#	SESSION TITLE	TRACK	ROOM
<b>SUNDAY, JULY 27, 2025 - SESSION TIME: 8:30-10:00 (PAGES 8 - 10)</b>			
1	HSSE Plenary: Human Side of Service Engineering Welcome	HSSE	AHFE 1: Griffin A
2	Human-Centered Design and Artificial Intelligence	HCI	AHFE 2: Griffin B
3	Human Performance and Reliability Analysis	HERRP	AHFE 3: Griffin C
4	Human-Robot Interaction and Virtual Agents	AATDE	AHFE 4: Pine
5	Human Factors in Artificial Intelligence and Social Computing I	AISC	AHFE 5: Spruce
6	Influence of Artificial Intelligence on Partner Collaboration	HFBMS	AHFE 6: Crane
7	Discourse on the Communication of Design Through the Lens of Human Values	HFGD	AHFE 7: Egret
8	SIG: Intelligent Tutoring Systems and Generalized Intelligent Framework for Tutoring-GIFT: Applicability to Industry, Academia, and Government	HFSIM	AHFE 8: Ibis
9	Wearable Technologies and Sensors	HFWT	AHFE 9: Osprey
<b>REFRESHMENTS: 10:00-10:30 • FOYER</b>			
<b>SUNDAY, JULY 27, 2025 - SESSION TIME: 10:30-12:00 (PAGES 11- 13)</b>			
10	Future Skills and Interdisciplinary Service Innovation	HSSE	AHFE 1: Griffin A
11	Cognitive Sensing and Decision Making in Digital Health and Care	CCIoT	AHFE 2: Griffin B
12	Sensory Engineering and Emotion I	APD	AHFE 3: Griffin C
13	Motivating Engineering I	APD	AHFE 4: Pine
14	Advances in Workload Management, Training and Operations I	AVI	AHFE 5: Spruce
15	Integrative Approaches to Physiological and Cognitive Monitoring in Human Performance and Health	CN	AHFE 6: Crane
16	Human Factors in Energy: Offshore Drilling and Control Room Design	ENERGY	AHFE 7: Egret
17	Interdisciplinary Design Research	IPID	AHFE 8: Ibis
18	Digital Tools for Education and Collaboration	AATDE	AHFE 9: Osprey
<b>12:00 - 13:00 • LUNCH AT THE RESTAURANT OF YOUR CHOICE</b>			
<b>SUNDAY, JULY 27, 2025 - SESSION TIME: 13:00-14:30 (PAGES 13 - 15)</b>			
19	New Approaches, Tools, and Technology in Design Education Through Practice I	IPID	AHFE 1: Griffin A
20	Design for Inclusion Challenges and Visual Design	DI	AHFE 2: Griffin B
21	Human Factors in Smart Products Design	ED	AHFE 3: Griffin C
22	Performance, Usability, and Workflow Optimization in Healthcare	EHMD	AHFE 4: Pine
23	Human-Computer Interaction: Cognitive and Visual Attention	HCI	AHFE 5: Spruce
24	Reimagining Service Innovation: Generative AI in Service Design, Ethics, and User Experience Design	HSSE	AHFE 6: Crane
25	Between Tradition and Innovation in Preventive Medicine: Polish School of Safe Falling I	PMIA	AHFE 7: Egret
26	Safety Management Using AI and Data Science	SMHF	AHFE 8: Ibis
27	Design Applications and User Experience	UUE	AHFE 9: Osprey
<b>REFRESHMENTS: 14:30-15:00 • FOYER</b>			
<b>SUNDAY, JULY 27, 2025 - SESSION TIME: 15:00-16:30 (PAGES 16 - 18)</b>			
28	The Intersection of Human System Integration Planning and Goals for Programs Involving Automation and Operations	CIE	AHFE 1: Griffin A
29	Digital Innovations and Human-Centric AI in Healthcare	EHMD	AHFE 2: Griffin B
30	Metaverse, Virtual Environments and User Experience I	HFGD	AHFE 3: Griffin C
31	Human Factors in Urban Road Transport	RR	AHFE 4: Pine
32	From Data to Implementation - Leveraging Health Informatics to Improve Patient Care	HIBEA	AHFE 5: Spruce
33	Architecture, Environment and Psychological Aspects	SUPI	AHFE 6: Crane
34	HMI Design and Studies	SYSI	AHFE 7: Egret
35	Optimizing Learning and Performance	TELS	AHFE 8: Ibis
36	ISSIP: Advancing Service Innovation to Benefit People, Business and Society	HSSE	AHFE 9: Osprey

# Conference at a Glance

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#	SESSION TITLE	TRACK	ROOM
<b>MONDAY, JULY 28, 2025 - SESSION TIME: 8:30-10:00 (PAGES 19 - 21)</b>			
37	Artificial Intelligence: Utilization and Innovations	AISC	AHFE 1: Griffin A
38	Conceptual Development of Human Interaction with Assistive Robotics	HFBMS	AHFE 2: Griffin B
39	Artificial Intelligence: The Human-Machine Interaction	GIC	AHFE 3: Griffin C
40	Balancing Benefits and Risks in the Digital Age	HSSE	AHFE 4: Pine
41	Interdisciplinary Approach to Industrial Design	IPID	AHFE 5: Spruce
42	Kansei Design	KE	AHFE 6: Crane
43	Towards Safer, Smarter and Sustainable Maritime Operations: Insights From Research and Practice	MAR	AHFE 7: Egret
44	Design Research, Usability and User Experience	UUE	AHFE 8: Ibis
45	Ergonomic Risk Analysis and Safety Implications	SMHF	AHFE 9: Osprey
<b>REFRESHMENTS: 10:00-10:30 • FOYER</b>			
<b>MONDAY, JULY 28, 2025 - SESSION TIME: 10:30-12:00 (PAGES 21- 24)</b>			
46	Motivating Engineering II	APD	AHFE 1: Griffin A
47	Design for Inclusion for Special Population, Youth and Ageing Society	DI	AHFE 2: Griffin B
48	Human-Computer Interaction and Artificial Intelligence	HCI	AHFE 3: Griffin C
49	Advances in Naval Aviation Training: Government Perspectives	HFSIM	AHFE 4: Pine
50	Between Tradition and Innovation in Preventive Medicine: Polish School of Safe Falling II	PMIA	AHFE 5: Spruce
51	Innovations in Digital Technology for Cultural Heritage in Communication	HFCO	AHFE 6: Crane
52	Knowledge and Creating Value in Teams, Organizations, Communities, and Societies	HSSE	AHFE 7: Egret
53	Training and Emergency Preparedness I	TELS	AHFE 8: Ibis
54	Metaverse, Virtual Environments and User Experience II	HFGD	AHFE 9: Osprey
<b>12:00 - 13:00 • LUNCH AT THE RESTAURANT OF YOUR CHOICE</b>			
<b>MONDAY, JULY 28, 2025 - SESSION TIME: 13:00-14:30 (PAGES 24 - 26)</b>			
55	Sensory Engineering and Emotion II	APD	AHFE 1: Griffin A
56	Advances in Workload Management, Training and Operations II	AVI	AHFE 2: Griffin B
57	Systemic Structural Activity Theory	CN	AHFE 3: Griffin C
58	Social Engineering in Cybersecurity	CYBER	AHFE 4: Pine
59	Cognitive Computing in Sociotechnical Environments	CCIoT	AHFE 5: Spruce
60	Design for Sustainability and Experience in Urban Planning I	SUPI	AHFE 6: Crane
61	Knowledge and AI in Sociotechnical Systems	SYSI	AHFE 7: Egret
62	UX and Usability Evaluation for Healthcare and Virtual Environments	UUE	AHFE 8: Ibis
63	Human Error and Performance Analysis I	HERRP	AHFE 9: Osprey
<b>REFRESHMENTS: 14:30-15:00 • FOYER</b>			
<b>MONDAY, JULY 28, 2025 - SESSION TIME: 15:00-16:30 (PAGES 27 - 29)</b>			
64	Social and Work Environment Risk Assessment	SOE	AHFE 1: Griffin A
65	Human Factors and Artificial Intelligence in Decision Support and Project Management	HFBMS	AHFE 2: Griffin B
66	Implementation Challenges of Artificial Intelligence in Transportation	HERRP	AHFE 3: Griffin C
67	Approaches to Aging Workforce and Special Needs	HFAS	AHFE 4: Pine
68	HSSE Future Directions and Planning for 2026	HSSE	AHFE 5: Spruce
69	Advances in Naval Aviation Training: Industry Perspectives	HFSIM	AHFE 6: Crane
70	Driver Performance, Behavior and Physiology	RR	AHFE 7: Egret
71	Attitudes and Trust in Remote and Autonomous Vehicles	RR	AHFE 8: Ibis
72	Workplace Safety Awareness and Culture	SMHF	AHFE 9: Osprey

# Conference at a Glance

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#	SESSION TITLE	TRACK	ROOM
<b>TUESDAY, JULY 29 - SESSION TIME: 8:30-10:00 (PAGES 29 - 31)</b>			
73	Innovations in XR and Digital Environments	AATDE	AHFE 1: Griffin A
74	Human Factors in Artificial Intelligence and Social Computing II	AISC	AHFE 2: Griffin B
75	Design for All and Cultural Heritage	DI	AHFE 3: Griffin C
76	Physical Ergonomics Evaluation I	PEHF	AHFE 4: Pine
77	AI in Workplaces and Professional Practice	GIC	AHFE 5: Spruce
78	Human Computer Interaction Applications: Efficiency and Performance I	HCI	AHFE 6: Crane
79	Trust, Awareness, and Collaboration in AI and Robotics	HFRDUS	AHFE 7: Egret
80	Industry 4.0 and Intelligent Manufacturing Technologies	MFG	AHFE 8: Ibis
<b>REFRESHMENTS: 10:00-10:30 • FOYER</b>			
<b>TUESDAY, JULY 29 - SESSION TIME: 10:30-12:00 (PAGES 32- 34)</b>			
82	Explorations in Design Education	IPID	AHFE 1: Griffin A
83	Human Factors in Operational Management and Leadership	HFBMS	AHFE 2: Griffin B
84	Human Factors in Knowledge Management, Innovation and Human Intellectual Capital	CIE	AHFE 3: Griffin C
85	Applied Next-Generation Concepts in Human-Centered Design and Security I	CYBER	AHFE 4: Pine
86	Employing Human Factors throughout the Development of Innovative Naval Training Technologies	HFSIM	AHFE 5: Spruce
87	Physical Ergonomic Risk Assessment: Methods and Techniques	PEHF	AHFE 6: Crane
88	Product and Process Evaluation and Quality	PEQ	AHFE 7: Egret
89	Automation and AI to Enhance Aviation Operations	AVI	AHFE 8: Ibis
<b>12:00 - 13:00 • LUNCH AT THE RESTAURANT OF YOUR CHOICE</b>			
<b>TUESDAY, JULY 29 - SESSION TIME: 13:00-14:30 (PAGES 34 - 36)</b>			
91	Psychophysiological Computing for Skill Training of First Responders, Executive and Action Forces	CCIoT	AHFE 1: Griffin A
92	Cognition and Decision-Making in Complex Human-System Interactions	CN	AHFE 2: Griffin B
93	Panel: Perspectives on Advancing Naval Air Training via Innovative Technologies and Human Factors Methods	CIE	AHFE 3: Griffin C
94	Human Error and Performance Analysis II	HERRP	AHFE 4: Pine
95	Simulation Workload, Usability, Acceptance and Engagement	HFSIM	AHFE 5: Spruce
96	Ergonomics, Human Factors and Work Efficiency	SOE	AHFE 6: Crane
97	Occupational Risk Management and Work-Related Injuries	SMHF	AHFE 7: Egret
98	Design for Sustainability and Experience in Urban Planning II	SUPI	AHFE 8: Ibis
<b>REFRESHMENTS: 14:30-15:00 • FOYER</b>			
<b>TUESDAY, JULY 29 - SESSION TIME: 15:00-16:30 (PAGES 37 - 39)</b>			
100	Design and Technology Innovation	CIE	AHFE 1: Griffin A
101	Human Computer Interaction: User Experience and User Interface	HCI	AHFE 2: Griffin B
102	Technology and Design for the Aging Population	HFAS	AHFE 3: Griffin C
103	Automated and Autonomous Driving	RR	AHFE 4: Pine
104	Innovations in Sustainable Industry I	SBE	AHFE 5: Spruce
105	Skill Learning and Performance Assessment	TELS	AHFE 6: Crane
106	Design Evaluation and User Perspective	UUE	AHFE 7: Egret
107	Multidisciplinary Perspectives on AI-Enabled Human-Robot and Systems Interaction in Manufacturing	MFG	AHFE 8: Ibis



# Conference at a Glance

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#	SESSION TITLE	TRACK	ROOM
<b>WEDNESDAY, JULY 30, 2025 - SESSION TIME: 8:30-10:00 (PAGES 39 - 42)</b>			
109	Enhancing Accessibility through Technology	AATDE	AHFE 1: Griffin A
110	Panel: Generative AI Risks and Benefits within Human-Machine Teams I	AISC	AHFE 2: Griffin B
111	Dialog Engineering in Business Leadership and Management	HFBMS	AHFE 3: Griffin C
112	Interaction with Emerging Technologies, Design and Evaluation	HDCS	AHFE 4: Pine
113	Human Teaming and Interaction in Autonomous Systems	HFRDUS	AHFE 5: Spruce
114	Design Strategy and User Interface Design	UUE	AHFE 6: Crane
115	Interdisciplinary Approach to Design Process	IPID	AHFE 7: Egret
116	New Approaches, Tools, and Technology in Design Education Through Practice II	IPID	AHFE 8: Ibis
<b>REFRESHMENTS: 10:00-10:30 • FOYER</b>			
<b>WEDNESDAY, JULY 30, 2025 - SESSION TIME: 10:30-12:00 (PAGES 42- 44)</b>			
118	Human Computer Interaction Applications: Efficiency and Performance II	HCI	AHFE 1: Griffin A
119	Cognitive Decision Support and Trustworthy AI	CCIoT	AHFE 2: Griffin B
120	Immersion and Psychological Responses in Virtual Environments	HFGD	AHFE 3: Griffin C
121	Human-Centered Ergonomics: Wearable Technologies and Virtual Reality	HFWT	AHFE 4: Pine
122	Cognitive and Design Challenges for Future Maritime and Transportation Operations	MAR	AHFE 5: Spruce
123	Physical Ergonomics Evaluation II	PEHF	AHFE 6: Crane
124	Workspace Design and Safety	SYSI	AHFE 7: Egret
125	Panel: Generative AI Risks and Benefits within Human-Machine Teams II	AISC	AHFE 8: Ibis
<b>12:00 - 13:00 • LUNCH AT THE RESTAURANT OF YOUR CHOICE</b>			
<b>WEDNESDAY, JULY 30, 2025 - SESSION TIME: 13:00-14:30 (PAGES 44 - 47)</b>			
127	Innovative and Multidisciplinary Approaches to Human Factors and Operations Management	CIE	AHFE 1: Griffin A
128	Applied Next-Generation Concepts in Human-Centered Design and Security II	CYBER	AHFE 2: Griffin B
129	Ergonomics in Product and Environment Design	ED	AHFE 3: Griffin C
130	Innovating Safety and Usability in Healthcare Devices	EHMD	AHFE 4: Pine
131	Digital Environments, Metaverse and Immersive Experience	HFGD	AHFE 5: Spruce
132	Innovations in Sustainable Industry II	SBE	AHFE 6: Crane
133	Training, Learning and Certification with AI and Data Analysis	TELS	AHFE 7: Egret
134	3D Prototyping and Process Management	MFG	AHFE 8: Ibis
<b>REFRESHMENTS: 14:30-15:00 • FOYER</b>			
<b>WEDNESDAY, JULY 30, 2025 - SESSION TIME: 15:00-16:30 (PAGES 47 - 49)</b>			
195	Motivating Engineering III	APD	AHFE 1: Griffin A
196	Harnessing Digital Human Modeling for Optimization and Safety	DHMAO	AHFE 2: Griffin B
197	Trust, Perceptions, and Ethical Implications of AI	GIC	AHFE 3: Griffin C
198	Human Computer Interaction: Virtual and 3D Environments	HCI	AHFE 4: Pine
199	Systems and Software Engineering Requirements and Challenges	HFSSE	AHFE 5: Spruce
200	Human Factors in Rail Transport	RR	AHFE 6: Crane
201	Safety Management and Accident Preparedness	SMHF	AHFE 7: Egret
202	Training and Emergency Preparedness II	TELS	AHFE 8: Ibis

<p><b>1</b></p>	<p><b>HSSE Plenary: Human Side of Service Engineering Welcome</b> Co-Chairs: Christine Leitner, UK, Clara Bassano, Italy and Debra Satterfield, USA</p>	<p>HSSE</p>
<p>8:30-10:00 AHFE 1: GRIFFINA</p>	<p>HSSE 2025 Updates and Best Paper Awards Christine Leitner, Clara Bassano, Debra Satterfield, UK/Italy/USA</p> <p>Future skills: Competencies and frameworks for a creative and democratic future Sophia Frank, Germany</p>	
<p><b>2</b></p>	<p><b>Human-Centered Design and Artificial Intelligence</b> Co-Chairs: Sarah Diefenbach and Daniel Ullrich, Germany</p>	<p>HCI</p>
<p>8:30-10:00 AHFE 2: GRIFFIN B</p>	<p>Critical foresight of human-computer interaction: A review on methods to assess ethical risks and side-effects of emerging technologies Sarah Diefenbach, Johannes Stoll, Daniel Ullrich, Germany</p> <p>Promoting healthy eating by design: Opportunities for meaningful persuasive technologies Amon Rapp, Arianna Boldi, Italy</p> <p>Intelligent training robot for enhancing human strength and conditioning Jiangcheng Chen, Kehan Zou, Guo Yang, Xin Ma, Ning Xi, Hong Kong SAR China</p> <p>Exploring the impact of AI-generated content on branded IP character design and user experience Yijing Wang, China</p> <p>The impact of visual elements and design principles of design systems on design decisions Keyang Wu, Xiaojun Liu, China</p> <p>Real-time object recognition with neural networks in public transport – determining the utilization of vehicles using existing camera systems Waldemar Titov, Julian Knust, Thomas Schlegel, Germany</p> <p>Design evaluation system of AI-generated content in the industrial design of construction machinery Yifan Yang, Hui Li, China</p>	
<p><b>3</b></p>	<p><b>Human Performance and Reliability Analysis</b> Co-Chairs: Qinglian Lin, China and Francesco Facchini, Italy</p>	<p>HERRP</p>
<p>8:30-10:00 AHFE 3: GRIFFIN C</p>	<p>Improved FMEA for human reliability analysis in complex healthcare system based on DEMATEL and TOPSIS in fuzzy environment Qinglian Lin, Xue Pei, China</p> <p>Development of an analytical model to assess the human error probability in cognitive-oriented tasks Francesco Facchini, Italy</p> <p>Virtual human in the loop (VHITL): Generating synthetic human performance data with HUNTER Ronald Boring, Thomas Ulrich, Roger Lew, Jooyoung Park, USA</p> <p>Methodology for analyzing the resilience capabilities of manufacturing companies Jessica Mack, Oliver Scholtz, Germany</p> <p>FAA and United States Air Force Research Centers collaborative efforts measuring human performance Sarah Ligda, Thomas Van Dillen, Kenneth Allendoerfer, Cynthia Cecan, Olivia McGough, Danae Johnson, USA</p>	
<p><b>4</b></p>	<p><b>Human-Robot Interaction and Virtual Agents</b> Co-Chairs: Michiko Inoue, Japan and Nirit Gavish, Israel</p>	<p>AATDE</p>
<p>8:30-10:00 AHFE 4: PINE</p>	<p>The effect of a CHATGPT-based avatar's appearance on the effectiveness of job interview training Nirit Gavish, Daniel Zhuravel, Itzik Ben-shlush, Israel</p> <p>Metaverse-based demonstrators as an alternative to traditional presentations: Case fossil-free steelmaking processes Tommi Immonen, Eero Nirhamo, Mikko Salonen, Kaapo Seppälä, Seppo Helle, Olli Heimo, Teijo Lehtonen, Finland</p> <p>How face display and clothing affect user impressions of robotic virtual reality agents introducing products Michiko Inoue, Shunsuke Yoneda, Masashi Nishiyama, Japan</p> <p>Comparing 360-Degree video and immersive VR in empathy induction: Impact on young designers' engagement and problem identification Dinghau Huang, Taiwan</p>	

<b>5</b>	<b>Human Factors in Artificial Intelligence and Social Computing I</b> Co-Chairs: Ruchi Kukde, USA and Xinyu Cao, China	<b>AISC</b>
8:30-10:00 AHFE 5: SPRUCE	<p><b>Data-driven insights into diabetes-related hospital readmissions in the United States: Trends and predictors</b>                  Ruchi Kukde, Jaymeen Shah, Aindrila Chakraborty, USA</p> <p><b>A sliding-window batched framework: Optimizing Retrieval-Augmented Generation (RAG) for trustworthy AI under the EU AI Act</b>                  Daniel Danter, Heidrun Mühle, Austria</p> <p><b>A method of structured standard terminology based on decoupling approach</b>                  Xinyu Cao, Zhengyuan Han, Yi Yang, Liangliang Liu, Pai Peng, Haitao Wang, China</p> <p><b>Convo-based attitude analysis of Twitter big data: A case study on Ukraine-Russia War dataset</b>                  Ning Sa, Ankita Bhaumik, Tomek Strzalkowski, USA</p> <p><b>Smart cities: Are they really accessible and truly smart?</b>                  Larissa Batista, Ana Carolina Lacorte De Assis, Michelle Nascimento Costa, José Alberto Barroso Castañon, Brazil</p> <p><b>Climate change pulse: A RAG-driven interactive platform for exploring disaster-linked climate sentiment on social media</b>                  Alan Zheng, Carlos Gonzalez, USA</p>	
<b>6</b>	<b>Influence of Artificial Intelligence on Partner Collaboration</b> Co-Chairs: Minna Takala, Finland and Katharina Schulze, Germany	<b>HFBMS</b>
8:30-10:00 AHFE 6: CRANE	<p><b>A quantitative study on sustainable stratagems and its impact on the financial performance.</b>                  Fateha Shaheen, Rashed Khan, UK</p> <p><b>Reasonable living as a proactive customer value: feeling heard, seen, and understood</b>                  Keijo Houhala, Tuomas Korhonen, Teemu Laine, Vesa Salminen, Finland</p> <p><b>Regional innovation valleys enhancing place-based innovation</b>                  Minna Takala, Taina Tukiainen, Marina Weck, Vesa Salminen, Finland</p> <p><b>Green advantage: Key differentiators in business sustainability</b>                  Katharina Schulze, Michaela Friedrich, Germany</p> <p><b>Opportunities of systems intelligence in systemic design</b>                  Satu Jumisko Pyykko, Jukka Pulkkinen, Finland</p>	
<b>7</b>	<b>Discourse on the Communication of Design Through the Lens of Human Values</b> Co-Chairs: Zi Han Mei and Yixuan Shao, China	<b>HFCD</b>
8:30-10:00 AHFE 7: EGRET	<p><b>Exploring the influence of Pantone color trend report on design communication in the fashion industry: A long-term comparative study</b>                  Yixuan Shao, China</p> <p><b>Emotional impact of typeface design on communication design</b>                  Amic Ho, Ruth Chau, Hong Kong SAR China</p> <p><b>Interaction modes and user experience in generative AI-based new media art</b>                  Zi Han Mei, Yi Fei Feng, Zi Xuan Zhang, Jia Wang, Yu Run Han, Zi Ling Wang, Ying Long, China</p> <p><b>Can stylized pale-toned public health and safety graphic signs become the mainstream of design</b>                  Regina W. Y. Wang, I Ning Liu, Jiacheng Wang, Taiwan</p> <p><b>Cultural-to-modern design translation: A study on Canal transportation map Using SWOT &amp; KANO models</b>                  Shuying He, China</p> <p><b>Empowering Asian artists: The Art Futures Award Initiative</b>                  Man Yee Janet Fong, Jimmy Lee, Gloria Mak, Hong Kong SAR China</p>	

<p><b>8</b></p>	<p><b>SIG: Intelligent Tutoring Systems and Generalized Intelligent Framework for Tutoring- GIFT: Applicability to Industry, Academia, and Government</b> Co-Chairs: Lisa N. Townsend and Anne M. Sinatra, USA</p>	<p>HFSIM</p>
<p>8:30-10:00 AHFE 8: IBIS</p>	<p>Special Interest Group (SIG) Session</p> <p><b>Focus:</b> This SIG is designed to inform and engage conference participants in exploring the Generalized Intelligent Framework for Tutoring’s (GIFT) tools and methods. Participants will be informed of GIFT’s newest features that go beyond course creation, to include capabilities for real time multimodal assessment to inform student models and estimates of student competency. The session will include a panel of current GIFT users spanning academia, industry, and government who will showcase how they are using GIFT for ITS research and training applications.</p> <p><b>Objectives:</b> Panel members will discuss how they are implementing training using GIFT and lessons learned in their domains during an in-depth interactive Q&amp;A. The panel discussion and focused Q&amp;A will lead to a demonstration within GIFT that is selected based on the input of the participants. GIFT users and collaborators drive the need for new capabilities and this two hour SIG event will bring new users and collaborators into the mix as the community continues to develop new features and use cases for adaptive instructional systems. Examples and Lessons learned utilizing the generalized intelligent framework for tutoring (GIFT)</p> <p>Lisa Townsend, Anne Sinatra, Ben Goldberg, Paige Lawton, USA</p> <p>Example of integrating an external simulation with the Generalized Intelligent Framework for Tutoring (GIFT)</p> <p>Alexandra Lutz, USA</p> <p>Curiosity games: Enhancing stem education in a VR math game through gift integration</p> <p>Caila Deabreu, Eric Osorio, Hong Liu, USA</p> <p>Intelligent tutoring systems and generalized intelligent framework for tutoring-gift: Applicability to industry, academia, and government</p> <p>Kevin Owens, USA</p>	
<p><b>9</b></p>	<p><b>Wearable Technologies and Sensors</b> Co-Chairs: Elizabeth Merwin and Katelynn Kapalo, USA</p> <p>Quiet but not quite: The limitations of active noise-canceling headphones in open offices</p> <p>Elizabeth Merwin, Brandon Dreslin, Kaitlin Deboth, Allysa Hayden, Mary Bender, Maissane Aik, Toni Butler, Zachary Young, Noah Robbins, Alex Chaparro, USA</p> <p>Industry 5.0 - human-centered work process design through the psychological measurement of stress, thanks to new wearables</p> <p>Florian Beuss, Jan Sender, Hans-ullrich Balzer, Paul Edler, Germany</p> <p>Vital signs: Towards the practical application of smart wearables for firefighter safety and performance</p> <p>Katelynn Kapalo, Shawn Downs, USA</p> <p>Audicom: Bridging silence with meaning—a wearable solution for deaf and hard-of-hearing communication</p> <p>Carlos Aguiar, Kendall Rusch, Remy Hilpp, Aimee Ryan, Olivia Rees, USA</p> <p>Design and preliminary experimental verification of a passive resistance-type lower limb exoskeleton</p> <p>Bo Han, China</p>	<p>HFWT</p>
<p>REFRESHMENTS: 10:00-10:30 • FOYER</p>		

<b>10</b>	<b>Future Skills and Interdisciplinary Service Innovation</b> Chair: Christian Zagel, Germany	HSSE
10:30-12:00 AHFE 1: GRIFFIN A	<p><b>Attachment theory in the digital age: Exploring the psychosocial dimensions of technology use</b> Christian Grosch, Germany</p> <p><b>Trading on sentiment: Leveraging generative artificial intelligence for financial market predictions</b> Johannes Stübinger, Fabio Metz, Julian Knoll, Germany</p> <p><b>Sustainable entrepreneurship in German rural areas: A survey and implications for entrepreneurship education and support programs</b> Christian Schadt, Christian Zagel, Janine Koch, Germany</p> <p><b>Large language models for tacit knowledge elicitation in Industry 5.0: A literature review</b> Yannick Rank, Ludwig Streloke, Patrick Bründl, Freimut Bodendorf, Joerg Franke, Germany</p> <p><b>Co-creation in academic education: Enhancing future skills for the service sector</b> Sophia Frank, Germany</p> <p><b>From linear to circular: Redefining the customer journey in sustainable fashion</b> Lotta Straube, Germany</p>	
<b>11</b>	<b>Cognitive Sensing and Decision Making in Digital Health and Care</b> Co-Chairs: Lucas Paletta, Austria and Mila Chorbadzhieva, The Netherlands	CCIoT
10:30-12:00 AHFE 2: GRIFFIN B	<p><b>Virtual experience and interactive training environments with bio-signal-based indicators for cognitive decline: Results of the SmartAktiv study</b> Lucas Paletta, Julia Zuschnegg, Anna Schultz, Amadeus Linzer, Wolfgang Kratky, Ursula Berger, Martin Pszeida, Amir Dini, Sandra Draxler, Michael Schneeberger, Wolfgang Weiss, Jochen A. Mosbacher, Thomas Orgel, Thomas Pfitzer, Silvia Russegger, Judith Goldgruber, Marisa Koini, Sandra Schüssler, Austria</p> <p><b>Early detection of risk for cognitive decline using mobile apps and eye tracking-based biomarkers</b> Martin Pszeida, Michael Schneeberger, Jochen A Mosbacher, Silvia Russegger, Thomas Orgel, Elke Zweytik, Sandra Zweytik, Lucas Paletta, Austria</p> <p><b>Exploring AI agents for reminiscence therapy in long-term care</b> Mila Chorbadzhieva, Tim Hulshof, Thijs Tops, Eric Riegen, Erwin Meinders, The Netherlands</p> <p><b>Motivating patients with depression for gender-sensitive cognitive training using a socially assistive robot with bio-signal driven pause management</b> Martin Pszeida, Alfred Häussl, Julia Zuschnegg, Michael Macher, Sandra Draxler, Thomas Orgel, Michael Schneeberger, Wolfgang Weiss, Jochen A. Mosbacher, Anna Schultz, Dominik Steindl, Silvia Russegger, Regina Roller Wirnsberger, Nina Dalkner, Sandra Schüssler, Eva Reininghaus, Lucas Paletta, Austria</p> <p><b>User centric design of a comprehensive web-based pain management system including a wearable neurostimulation device and patient app</b> Stefan Kampusch, Caroline Stremnitzer, Austria</p>	
<b>12</b>	<b>Sensory Engineering and Emotion I</b> Co-Chairs: Keiichi Watanuki and Kazunori Kaede, Japan	APD
10:30-12:00 AHFE 3: GRIFFIN C	<p><b>Effects on player perception of jumping extensions with varying trajectories in VR</b> Takuto Adachi, Keiichi Watanuki, Kazunori Kaede, Japan</p> <p><b>Evaluation of driver overconfidence in automotive driving using physiological data</b> Kuno Takumi, Kazunori Kaede, Keiichi Watanuki, Japan</p> <p><b>Estimation of intellectual productivity using electrocardiograms during computational tasks with cognitive load</b> Kosuke Sato, Keiichi Watanuki, Kazunori Kaede, Japan</p> <p><b>Development of a fast and high-precision audio noise reduction system to enhance the accuracy of emotion estimation in practical applications</b> Kanji Okazaki, Keiichi Watanuki, Yusuke Osawa, Japan</p> <p><b>Real-time adaptive gripping mechanism using object classification and feedback control</b> Diptesh Kumar Mandal, Kazunori Kaede, Keiichi Watanuki, Japan</p> <p><b>AI-driven personalized multisensory design of cultural heritage: A case study of Kunqu Opera</b> Tián Céng, Jie Zhou, China</p> <p><b>Exploring cross-sensory perception in dining environments: The role of tactile surface properties on users' visual and gustatory experiences</b> Siyuan Guo, Bingqian Li, Yuanyuan Liu, China</p>	

<b>13</b>	<b>Motivating Engineering I</b> Co-Chairs: Shuichi Fukuda and Yoshihiro Sejima, Japan	<b>APD</b>
10:30-12:00 AHFE 4: PINE	Analog intelligence approach to human augmentation Shuichi Fukuda, Japan Motivational engineering for medication adherence Tomoki Koike, Daigo Misaki, Shunsuke Hirayama, Hikaru Mito, Hana Sato, Yoshiyuki Furumi, Hironori Takeuchi, Japan Design of a pupil response robot that listens with empathy Yoshihiro Sejima, Japan Emotion mechanics and epistemic emotions Hideyoshi Yanagisawa, Japan Brand concepts and trends Shinya Nagasawa, Japan Personal space for avatar communication in real and virtual environments Tetsuro Ogi, Xiangyu Sheng, Yuki Kida, Japan	
<b>14</b>	<b>Advances in Workload Management, Training and Operations I</b> Co-Chairs: Dennis Vincenz and Kendall Carmody, USA	<b>AVI</b>
10:30-12:00 AHFE 5: SPRUCE	Investigating relationships between first solo hours and overall flight training performance for part 141 flight students Donghyun Yoo, Bill Deng Pan, Dennis Vincenz, Dahai Liu, USA Evaluation of prototype battery information displays for eVTOL aircraft Kendall Carmody, Maureen Namukasa, Bhoomin Chauhan, Xiaomeng Sun, Yarisce Adorno, Meredith Carroll, USA Some of our CVR data are missing: 92 airline accidents & incidents 2014–2024 Simon Cookson, Japan Mayday, mayday! - Is heart rate variability a suitable objective indicator to detect a pilot's increased mental workload in emergency situations? Giulia Troyer, Maria Hagl, Jörn Jakobi, Germany Investigating the acceptance of Vertiport construction near residence using technology acceptance model (TAM) Hee Seon Yang, Bill Deng Pan, Dennis Vincenz, Dahai Liu, USA	
<b>15</b>	<b>Integrative Approaches to Physiological and Cognitive Monitoring in Human Performance and Health</b> Co-Chairs: Turgut Refik Caglar, Germany and Byungjoon Kim, USA	<b>CN</b>
10:30-12:00 AHFE 6: CRANE	Dependency of postural control factors on sway in individuals with/without diabetic peripheral neuropathy Byungjoon Kim, Tracey Kim, USA The psychological state evaluation method of a main control room operator based on physiological signals Qianxiang Zhou, Ke Yang, Zhongqi Liu, China A cognitive efficiency approach to assessing workload-performance tradeoffs in human-autonomy teams T'kara Mullins, Stephen Fiore, USA Adaptive task reallocation for lunar exploration: Cognitive load management in VR to enhance human-computer collaboration Zengrui Li, Qianchen Xia, Weiquan Yang, Ren Xinyi, Tian Ye, Shanguang Chen, China Exploratory study for the EEG characteristics of visual vestibular conflict-induced motion sickness Yue Wei, Xinjia Chen, China Cognitive workload among orthopaedic nurses during the morning rush hours: Results from field survey and lab-simulated eye-tracking evaluation Xuanang Zhao, Wu Zhuoxun, Zhao Wenqi, Hong Kong SAR China	
<b>16</b>	<b>Human Factors in Energy: Offshore Drilling and Control Room Design</b> Co-Chairs: Zining Yang and Sean Walker, USA	<b>ENERGY</b>
10:30-12:00 AHFE 7: EGRET	Job analysis of gas and electric power dispatchers for control room design decision support Thomas E. F. Witte, Jessica Schwarz, Torsten Gfesser, Stephanie Hochgeschurz, Germany Exploring political factors in clean energy transition using machine learning technique Ruiqian Li, Zining Yang, USA Sociotechnical challenges in the implementation of hydrogen fuel cell trucking Sean Walker, Mohamed El-sharkh, USA Digital twins for medium voltage switchgear: An initial architecture and state-of-the-art review for predictive maintenance Alexandre Andrade, Alexandre Cardoso, Alexandre Gomes de Siqueira, Edgard Afonso Lamounier, Gerson Lima, Brazil	

<b>17</b>	<b>Interdisciplinary Design Research</b> Co-Chairs: Cliff Shin and Yong-Gyun Ghim, USA	IPID
10:30-12:00 AHFE 8: IBIS	<p>Transformative approaches to sustainability: Case studies in industry strategy and service design                  Shuo-fang Liu, Yu An Chen, Taiwan</p> <p>The influence of the perception of visualized data on service usability                  Jun Otsuka, Wonseok Yang, Japan</p> <p>Relationship between planning and ownership in the experience of using products                  Momoka Muto, Wonseok Yang, Japan</p> <p>Integrating color theory into a smart desk lighting system for enhanced productivity and cognitive function in work environments                  Rachel Feine, Elham Morshedzadeh, Jeff Feng, Gordon Vos, USA</p> <p>Emotion in human motions                  Akiyoshi Inasaka, Japan</p>	
<b>18</b>	<b>Digital Tools for Education and Collaboration</b> Co-Chairs: Sarah Diefenbach, Germany and Chen Peng, China	AATDE
10:30-12:00 AHFE 9: OSPREY	<p>Reducing the cognitive load among teachers in hybrid lectures by a representation of remote students through a physical avatar in the classroom                  Daniel Ullrich, Andreas Butz, Kaja-Lena Isaksen, Sarah Diefenbach, Germany</p> <p>A monitoring automation recipe cookbook: Simple open-source solutions for home-based support of people living with dementia and their caregivers                  Harish Kambampati, Damon Berry, Julie Doyle, Orla Moran, Jonathan Turner, Michael Wilson, Dymrna O Sullivan, Suzanne Smith, Ireland</p> <p>Exploring museum experiences for people with cognitive disabilities: Characteristics, challenges and digital design opportunities                  Chen Peng, China</p> <p>Virtual reality for education from a user experience perspective: A bibliometric analysis                  Yang Shi, China</p>	
12:00-13:00 • ENJOY LUNCH AT THE RESTAURANT OF YOUR CHOICE		
<b>19</b>	<b>New Approaches, Tools, and Technology in Design Education Through Practice I</b> Co-Chairs: Joyce Thomas, USA and Megan Strickfaden, Canada	IPID
13:00-14:30 AHFE 1: GRIFFIN A	<p>Human-AI collaboration within industrial design: The argyle design framework                  Xilin Tang, Jerrod Windham, Joyce Thomas, USA</p> <p>Provoking students to re-story stakeholders in their design process                  Megan Strickfaden, Joyce Thomas, Elsie Osei, Canada</p> <p>Empathy and interaction: Students design helpful mobile app concepts for underserved populations                  David Smith, USA</p> <p>Case study: Industrial design students develop soft goods campaign videos to connect with potential investors                  Jose Rivera-Chang, USA</p>	
<b>20</b>	<b>Design for Inclusion: Challenges and Visual Design</b> Co-Chairs: Salman Asghar, Saudi Arabia and Paula Escudeiro, Portugal	DI
13:00-14:30 AHFE 2: GRIFFIN B	<p>Challenges and obstacles in assembly work in sheltered workshops                  Jessica Mack, Germany</p> <p>Consumer perceptions of product recyclability for extended producer responsibility (EPR)                  Kiersten Muenchinger, USA</p> <p>VR4ALL: Exploiting virtual reality for inclusive product design                  Paula Escudeiro, Nuno Filipe Escudeiro, Márcia Campos, Francisca Escudeiro, Portugal</p> <p>Challenges and opportunities in inclusive design and human factors: A case study of designers in Pakistan’s industrial sectors                  Salman Asghar, Saudi Arabia</p>	

<p><b>21</b></p>	<p><b>Human Factors in Smart Products Design</b> Co-Chairs: Qi Wang and Shu Wang, China</p>	<p>ED</p>
<p>13:00-14:30 AHFE 3: GRIFFIN C</p>	<p>Design and development of a modular OPM-MEG device based on 3D Chinese head anthropometry Qi Wang, Wang Haining, China The effect of facial size on perceived wearing comfort of Vision Pro Shu Wang, Yujia Du, Wang Haining, China Designing for comfort: OWS earphone design based on external ear anthropometry and comfort analysis Baoruo Zhang, K Liu, Ke Zeng, Yan Yan, Wang Haining, China Design tool for smartwatch form aesthetics evaluation based on principal component regression Jiaxin Shi, Yujia Du, Le Chang, Wang Haining, China Comparative self-perception empathy study in the design process Yan Li, Daniel A Muñoz, Shunli Yang, Xin Shu, Beibei Pan, Yunge Wang, China Correlation analysis of subjective preferences and mattress pressure comfort Qiannan Deng, Wei Yuqi, Ke Zeng, Wang Haining, China</p>	
<p><b>22</b></p>	<p><b>Performance, Usability, and Workflow Optimization in Healthcare</b> Co-Chairs: Ryan Hall and Ravikiran Singapogu, USA</p>	<p>EHMD</p>
<p>13:00-14:30 AHFE 4: PINE</p>	<p>The accuracy of the eye tracking in a virtual reality headset for possible research and clinical applications Ryan Hall, Rui Wu, Matthew Joyner, Zhen Zhu, Brian Sylcott, Chia-Cheng Lin, USA Human factors in an agile environment: Capturing value in healthcare Helen Fuller, Tamara Winden, Brandon Harpold, Somer Hand, Jacob Huffman, Timothy Arnold, USA Examining the efficacy of an improved CanSim for quantifying hemodialysis cannulation skills Lydia Petersen, Joe Bible, Abhijit Kshirsagar, Lee Sierad, Ravikiran Singapogu, USA Enhanced fall prevention in nursing facilities: Assisting caregivers through data-driven selective monitoring and notification Taihe Huang, Takuma Kano, Nao Takizawa, Takumi Ohashi, Miki Saijo, Japan</p>	
<p><b>23</b></p>	<p><b>Human-Computer Interaction: Cognitive and Visual Attention</b> Co-Chairs: Suvipra Singh, USA and Jun Chen, Macau SAR China</p>	<p>HCI</p>
<p>13:00-14:30 AHFE 5: SPRUCE</p>	<p>EEG-driven personalized visual communication Jun Chen, Yazhou Chen, Macau SAR China Evaluating map orientation methods in smartphone applications by analyzing search time through a virtual environment experiment Momoko Sakai, Yohsuke Yoshioka, Japan Optimizing human-machine interfaces for neuroergonomics: Cognitive workload and performance in sUAS operations Suvipra Singh, USA Exploring virtual keyboards for text entry in virtual reality Kheireddine Azzez, Andrii Matviienko, Gerrit Meixner, Germany The application of an RGB-D camera for monitoring the allocation of visual attention among high-speed train drivers Weiyi Shen, Beiyuan Guo, China The impact of information presentation modes on visual search under different task modalities Xianchun Yang, Xiaojun Liu, China</p>	
<p><b>24</b></p>	<p><b>Reimagining Service Innovation: Generative AI in Service Design, Ethics, and User Experience Design</b> Co-Chairs: Clara Bassano, Italy, Debra Satterfield, USA and Wesley Woelfel, USA</p>	<p>HSSE</p>
<p>13:00-14:30 AHFE 6: CRANE</p>	<p>Rethinking UX education Ryan G. Wilson, Erica Price, Debra Satterfield, USA Expressions of Alamelu: A cultural narrative enhanced with technology Divya Harshini Dhavala, Sofia Ingegno, Gabe Gutierrez, Debra Satterfield, USA Toward the inclusion of human factors in intelligence augmentation: Perspectives from a bibliometric analysis Miwa Nishinaka, Kunio Shirahada, Japan Collaborative toolkit: Case study on integrating campus and community for inclusive design Wesley Woelfel, USA Generative artificial intelligence for effective miner training Sergio Miranda, Clara Bassano, Tomasz Niedoba, Oktay Şahbaz, Italy</p>	



<p><b>25</b></p>	<p><b>Between Tradition and Innovation in Preventive Medicine: Polish School of Safe Falling I</b> Co-Chairs: Roman Maciej Kalina and Artur Kruszewski, Poland</p>	<p>PMIA</p>
<p>13:00-14:30 AHFE 7: EGRET</p>	<p>Early loss in ontogeny of the ability to protect the head and hands during a fall – nature did not fail, but coordinators and education Roman Maciej Kalina, Artur Kalina, USA</p> <p>The misuse of the term ‘therapy’ in science, education and in many areas of services may border on ‘anti-therapy’ Elizabeth Waszkiewicz, Artur Kruszewski, Poland</p> <p>Traumatic experiences of unintentional falls as a factor inspiring methodological modifications of intervention programs Patryk Wicher, Michal Kruszewski, Poland</p> <p>The potential hand-to-hand combat focus on attractiveness, health, education for peace, and personal security Artur Kruszewski, Michal Kruszewski, Poland</p> <p>Recreational exercises as an element of preventive medicine in professional Taekwondo training sportsman Artur Litwiniuk, Behnam Boobani, Juris Grants, Poland</p>	
<p><b>26</b></p>	<p><b>Safety Management Using AI and Data Science</b> Co-Chairs: Kosei Koizumi and Saki Akita, Japan</p>	<p>SMHF</p>
<p>13:00-14:30 AHFE 8: IBIS</p>	<p>Method to measure the effectiveness of new technologies that contribute to reducing damage from natural disasters Yurina Koyama, Yusaku Okada, Japan</p> <p>Development of an analysis support tool for near-miss events using ai technology - improving human factor management capabilities in the field Yuka Banno, Yusaku Okada, Japan</p> <p>A system for evaluating the status of future human error prevention activities in manufacturing sites based on information noticed during daily work Kosei Koizumi, Yusaku Okada, Chikori Ino, Japan</p> <p>Simulation of the effect of nurse staffing and rotation on the prevention of in-hospital fall accidents Risako Iwabuchi, Yusaku Okada, Japan</p> <p>Prototype of a safety management support tool using the results of a safety activity awareness survey Saki Akita, Yusaku Okada, Japan</p> <p>Run, hide, or freeze: Social and emotional influence on behavior in an immersive school shooting simulation Kevin Kapadia, Alyssa Franczak, Nutchanon Yongsatianchot, Stacy Marsella, Richard John, USA</p>	
<p><b>27</b></p>	<p><b>Design Applications and User Experience</b> Co-Chairs: Anglu Li and Jiaying Liang, China</p>	<p>UUE</p>
<p>13:00-14:30 AHFE 9: OSPREY</p>	<p>VR-Orient: Design and usability study of a mobile construction site orientation application Zixian Zhu, Jiun-yao Cheng, Idris Jeelani, Masoud Gheisari, USA</p> <p>Understanding university instructors’ cumulative user experience with a Learning Management System: A semester-long mixed methods study Lorelie Grepo, Belinda Esther Tan, Philippines</p> <p>Designing the healing process of natural pattern tie-dyeing based on user experience Anglu Li, Chang Guo, China</p> <p>Innovative design of immersive running pod based on multi-sensory theory Qianqian Tang, Yonghong Liu, Qingxia Chen, China</p> <p>Scenario-based design strategies for immersive running interaction experiences Jiaying Liang, Yonghong Liu, Qingxia Chen, China</p>	
<p>REFRESHMENTS: 14:30-15:00 • FOYER</p>		

<p><b>28</b></p>	<p><b>The Intersection of Human System Integration Planning and Goals for Programs Involving Automation and Operations</b> Co-Chairs: Michael Lowe and Nicole Kosoris, USA</p>	<p>CIE</p>
<p>15:00-16:30 AHFE 1: GRIFFIN A</p>	<p><b>Real-time physiological monitoring for warfighter training</b> Brian King, Alessio Medda, USA</p> <p><b>A systems engineering decision-making matrix for assessing XR suitability in task execution</b> Nicole Kosoris, USA</p> <p><b>Task analysis: A model-based human systems engineering approach</b> Zachary Guyton, Kristina Kuhlken, Michael Lowe, USA</p> <p><b>The eV(T)OLution of control framework, performance, and training: A look at flight controls from a flight simulation and pilot training perspective</b> Jennifer Martinez, Shea Fehrenbach, USA</p> <p><b>Incorporating human factors into OMC5 design and operations for improved efficiency and technician well-being</b> Nancy Franco, Canada</p> <p><b>Benefits of stress management training techniques on well-being and performance of air traffic control management college students</b> Andrew Dattel, Michael McCormick, Rajan Maroju, Haroon Jamanzi, Bowden Lilia, Jae Beum Lee, Savanna Box, Chaitanya Racharla, Arjun Nambiar, Mohamed Rostom, Jamie Barrett, USA</p> <p><b>Operations management - A concept for a self-organized task and workplace allocation</b> Nika Perevalova, Stefan Gerlach, Germany</p>	
<p><b>29</b></p>	<p><b>Digital Innovations and Human-Centric AI in Healthcare</b> Co-Chairs: Hailiang Wang, Hong Kong SAR China and Randal McCarthy, USA</p>	<p>EHMD</p>
<p>15:00-16:30 AHFE 2: GRIFFIN B</p>	<p><b>Human factors engineering and user-centered design principles in the design and development of device combination products for special patient populations</b> Randal McCarthy, USA</p> <p><b>Patients over process: Stratifying risk in the design, development, and deployment of artificial intelligence in healthcare</b> Bryan Johnston, Jay Kalra, Canada</p> <p><b>Using design thinking to improve student feedback in healthcare simulation</b> Swetha Anand, USA</p> <p><b>Elicitation of risk perception strategies in emergency rooms based on KYT technique and eye tracking stimulated retrospections</b> Hirotaka Aoki, Koji Morishita, Takanori Urano, Tomohiro Adachi, Atsushi Kudo, Japan</p> <p><b>Advancing scoliosis treatment: Development and evaluation of Anisotropic Textile Brace (ATB) for enhanced patient compliance</b> Joanne Yip, Jingyi Ma, Hong Kong SAR China</p> <p><b>Effects of text enhancements on visual differentiation with confusing medicine information: Evidence from an event-related potential study</b> Kaifeng Liu, Yingjun Wan, Qian Mao, Hailiang Wang, Hong Kong SAR China</p>	
<p><b>30</b></p>	<p><b>Metaverse, Virtual Environments and User Experience I</b> Co-Chairs: Alexander Thomas Kühn and Tobias Rusch, Germany</p>	<p>HFGD</p>
<p>15:00-16:30 AHFE 3: GRIFFIN C</p>	<p><b>Virtual Mittweida – Creating a game-based approach to teach artificial intelligence for games</b> Alexander Thomas Kühn, Marc Ritter, Manuel Heinzig, Christian Roschke, Germany</p> <p><b>Wheelchair virtual reality simulator ERA: A real to virtual interface investigation</b> Erico Monteiro, Alexandre Anibal Campos Bonilla, Milton Cinelli, Rafael Campos, Brazil</p> <p><b>Enhancing virtual reality gaming through wearable haptic feedback</b> Chutisant Kerdvibulvech, Thailand</p> <p><b>VR Speech: A virtual reality tool for public speaking</b> Sujan Shrestha, Aymon Kone, USA</p> <p><b>Individualized training in virtual worlds for emergency services</b> Tobias Rusch, Germany</p>	

<b>31</b>	<b>Human Factors in Urban Road Transport</b> Co-Chairs: Alexander Van Gastel, Belgium and Keely Gibb, Canada	<b>RR</b>
15:00-16:30 AHFE 4: PINE	<p><b>Relationship between gazing characteristics and conflict in overtaking selection toward the pedestrian ahead</b> Taisei Ogawa, Yohsuke Yoshioka, Japan</p> <p><b>Innovative design of a detached community mobile healthcare emergency vehicle system</b> Xin Chen, Wutian Chen, China</p> <p><b>How intensity-to-capacity (IC) ratios on cycleways impact cyclists' perceived safety, flow, and comfort</b> Alexander Van Gastel, Annemiek Awater, Daphne Mulkers, Lien Vancaerenendonck, Vincent Vanderhaeghen, Stijn Verwulgen, Belgium</p> <p><b>Vibration exposure during neonatal patient transport by ground and air ambulance</b> Keely Gibb, Michael Avarello, Patrick Kehoe, Andrew Law, Eric Chen, Eleanor Gerson, Kim Greenwood, Andrew A. M. Ibey, Jean Ngoie, Stephanie Redpath, Adrian D. C. Chan, James R. Green, Robert G. Langlois, Canada</p> <p><b>Efficacy of personal listening devices in immersive crosswalk environments</b> Esha Mahendran, Rafael Patrick, Yuyuan Cao, Jungheon Shin, Tanner Upthegrove, Charlie Duff, USA</p> <p><b>Optimized visualization of capacity information in public transport networks</b> Waldemar Titov, Sebastian Knopf, Thomas Schlegel, Germany</p> <p><b>Understanding visually impaired tramway passengers' interaction with public transport systems</b> Dominik Mimra, Dominik Kaar, Enrico Del Re, Novel Certad, Joshua Cherian Varughese, David Seibt, Cristina Olaverri-Monreal, Austria</p>	
<b>32</b>	<b>From Data to Implementation - Leveraging Health Informatics to Improve Patient Care</b> Co-Chairs: Janelle Wilson and Jaymeen Shah, USA	<b>HIBEA</b>
15:00-16:30 AHFE 5: SPRUCE	<p><b>Evaluating clinical efficacy of optical motion tracking with real-time animation for rehabilitation monitoring</b> Kartikeya Walia, Kaivalya Raval, UK</p> <p><b>Usability testing of healthcare portals for individuals with mental and physical disabilities: Assessing accessibility and user experience (UX)</b> Janelle Wilson, Duha Ali, USA</p> <p><b>Directional kinetic characteristics of drop landing for patients with functional ankle instability</b> Marilyn Meng, Yubo Wang, Qiuxia Zhang, USA</p> <p><b>Smart glasses and augmented reality to support healthcare</b> Adrian Morales Casas, Clara Solves Camallonga, José Manuel Rojas, Vanessa Jimenez, Fabien Divo, Aneta Andrzejczyk, Spain</p> <p><b>Integrating explainable machine learning techniques for predicting diabetes: A transparent approach to AI-driven healthcare</b> Amos Njeru, Ruth Wario, Lucy Gitonga, Rosa Njagi, Casam Nyaga, Kenya</p> <p><b>Analyzing diabetes-related hospitalizations: Trends and insights from NIS 2016–2019 for health informatics applications</b> Ruchi Kukde, Jaymeen Shah, Aindrila Chakraborty, USA</p>	
<b>33</b>	<b>Architecture, Environment and Psychological Aspects</b> Co-Chairs: Karol Staszczuk and Anna Staszczuk, Poland	<b>SUPI</b>
15:00-16:30 AHFE 6: CRANE	<p><b>Architectural, environmental and psychological aspects in the concept of healing house</b> Karol Staszczuk, Alicja Maciejko, Anna Staszczuk, Poland</p> <p><b>Passive cooling strategies of residential buildings in human-friendly architectural and construction design - example of experimental results</b> Anna Staszczuk, Poland</p> <p><b>Effects of opaque patterns on desk partitions on a sense of enclosure in the work environment</b> Nao Noda, Yohsuke Yoshioka, Japan</p> <p><b>Effect of stair tread width on perception of vertical ascending distance</b> Takumi Nagata, Yohsuke Yoshioka, Japan</p> <p><b>Urban spatial monitoring on innovative activities: The case of G60 innovative corridor</b> Lie Wang, Yiwen Chen, Lingyue Li, China</p> <p><b>Online learning space environment in colleges and universities based on learning effectiveness</b> Mengying Liang, China</p> <p><b>Visual cultural symbols in the colonial context: A comparative analysis of Macau, Havana and Mexico City</b> Zhiyuan Zheng, Yaoyao Yu, China</p>	

<p><b>34</b></p>	<p><b>HMI Design and Studies</b> Co-Chairs: Yuanyao Lu, China and Kazumi Inada, Japan</p>	<p><b>SYSI</b></p>
<p>15:00-16:30 AHFE 7: EGRET</p>	<p>A lip reading recognition system based on SimAM and TCN Yi Liu, Yuanyao Lu, China</p> <p>Developing effective VR training simulations for additive manufacturing: A modular usability-driven design approach Jose Lopez, Eshwara Prasad Sridhar, Tazim Ahmed, Yiran Yang, Shuchisnigdha Deb, USA</p> <p>Marionette-inspired interface: Bridging traditional puppetry and modern avatar control Kazumi Inada, Sangtae Kim, Japan</p> <p>LightBUY - Developing cloud sales design specifications from the ground up Xinmiao Shen, Danlin Song, China</p> <p>Development of color universal design education system Yuki Aoki, Japan</p> <p>Realtime video underlay for accessible television graphics Gordon Carlson, Honesty Beaton, USA</p>	
<p><b>35</b></p>	<p><b>Optimizing Learning and Performance</b> Co-Chairs: Abner Flores, USA and Maria Hagl, Germany</p>	<p><b>TELS</b></p>
<p>15:00-16:30 AHFE 8: IBIS</p>	<p>Enhancing pilot training performance: A scoping review of artificial intelligence technologies Abner Flores, Alexander Paselk, USA</p> <p>Developing a post-flight debriefing tool: Insights from a UX workshop and tool demonstration Maria Hagl, Darlann Bertolone-Lopez-Serrano, Marcus Biella, Alexander Donkels, Andreas Volkert, Sven Lorenz, Kristian Fettig, Nicholas Sloane, Andreas Pick, Germany</p> <p>Learning and engagement in continuous professional development through e-Learning platforms Ugnė Savanevičiūtė, Gabija Savaneviciute, Lithuania</p> <p>Structural hybridization of teaching-learning platforms and its influence in (re) orienting working-students' mental modes for knowledge acquisition Mohammed Aminu Sanda, Ghana</p> <p>Assessment of the Georgian marine pilots' training and certification system Natia Dolidre, Avtandil Tsitskishvili, Givi Tsitskishvili, Georgia</p> <p>Maritime education enhancements supported by recent developments in learning sciences Cassia Galvao, Peter Alexander Guggina, USA</p>	
<p><b>36</b></p>	<p><b>ISSIP: Advancing Service Innovation to Benefit People, Business and Society</b> Co-Chairs: Michele Carroll, USA, Christine Leitner, UK and Debra Satterfield, USA</p>	<p><b>HSSE</b></p>
<p>15:00-16:30 AHFE 9: OSPREY</p>	<p>ISSIP – Advancing service innovation to benefit people, business and society Debra Satterfield, Michele Carroll, James Clinton Spohrer, Christine Leitner, USA</p> <p>Key findings of the ISSIP White Paper on AI Challenges to Global Democracy Christine Leitner, Kazuyoshi Shimada, Michele Carroll, Japan</p> <p>Engineering the 21st Century service economy - The human side of service innovation and transformation with AI/ML, robotics, and automation Vittaladas Prabhu, James Clinton Spohrer, USA</p> <p>MyT-Me Update: Overview, status and the use of AI tools by this unique T-Shape scoring and personal professional development platform Louis Freund, James Clinton Spohrer, Pavel Savva, USA</p>	

<b>37</b>	<b>Artificial Intelligence: Utilization and Innovations</b> Co-Chairs: Stephen Fiore, USA and Christian Vocke, Germany	AISC
8:30-10:00 AHFE 1: GRIFFIN A	Developing artificial social intelligence to augment collaborative problem solving for future space missions Jessica Williams, Rhyse Bendell, Salomé Steiger, Stephen Fiore, USA Interpretable AI-generated videos detection using deep learning and integrated gradients Joshua Weg, Taehyung Wang, Li Liu, USA Leveraging LLMs to emulate the design processes of different cognitive styles Xiyuan Zhang, Jinyu Gu, Hongliang Chen, Shiyang Ding, Chunlei Chai, Hao Fan, China Similarity calculation of concepts based on feature distillation Haitao Wang, Lianghong Lin, Xinyu Cao, Jianfang Zong, China Far beyond knowledge – How hybrid intelligence is fundamentally changing our work and economy by enhanced innovation processes Christian Vocke, Germany	
<b>38</b>	<b>Conceptual Development of Human Interaction with Assistive Robotics</b> Chair: Kimmo Vanni, Finland	HFBMS
8:30-10:00 AHFE 2: GRIFFIN B	The need for ethics and good leadership as the foundation for aviation SMS programs: Have we forgotten something? Mark Miller, Mandira Gerrels, USA Smart tokens for proximity marketing and supply chain tracking - VICIMA Richard Vogel, Robert Manthey, Max Schlosser, Michael Walther, Josefine Welk, Marc Ritter, Matthias Vodel, Germany Servitization and corporate culture Keiko Toya, Japan The challenges, limitations, and opportunities of using exosuits and exoskeletons to assess human performance at work Kimmo Vanni, Xiaofeng Xiong, Emanuel Gunnarsson, Finland/Denmark/Sweden A participative management approach using the Company Democracy Model on the Indian Ministry of Education Evangelos Markopoulos, Chaitrali Anil Bhoi, Georgios Markopoulos, Akash Nandi, Hannu Vanharanta, Finland	
<b>39</b>	<b>Artificial Intelligence: The Human-Machine Interaction</b> Chair: Jay Kalra, Canada	GIC
8:30-10:00 AHFE 3: GRIFFIN C	Artificial intelligence revolution in healthcare: Enhancing clinical practice with new member of the team Jay Kalra, Bryan Johnston, Canada Stethoscope to algorithm: Equipping tomorrow's doctors for artificial intelligence-driven healthcare Jay Kalra, Bryan Johnston, Zoher Rafid-Hamed, Patrick Seitzinger, Canada AI-assisted creativity support for persona creation tools Shih Ju Wang, Chien-Hsiung Chen, Taiwan Art and emotion in the age of AI: Understanding human engagement with AI-generated and traditional art Anastasiia Fomina, Yan Luo, China Human factors methods in developing AI and machine learning high-risk prediction models in obstetric care Prithima Mosaly, Gregg Tracton, Medha Reddy Thummala, Karl Shieh, Alison Stuebe, USA	
<b>40</b>	<b>Balancing Benefits and Risks in the Digital Age</b> Co-Chairs: Christine Leitner, UK and Christoph Glauser, Switzerland	HSSE
8:30-10:00 AHFE 4: PINE	Shaping digital transformation beyond circularity Markus Warg, Germany Early digital market insights on autonomous vehicles (Avs) Christoph Glauser, Peter Kropf, Ricco Kämpfer, Loris Schmid, Switzerland International comparison of the personalization effects of information provision in tourism video promotions utilizing digital avatar Hisashi Masuda, Kenta Ichii, Yin Jou Huang, Japan Protection of AI/ML end users from 'bad actors': Challenges and policy responses Christian Stiefmueller, Christine Leitner, Stephen Kwan, UK/USA Designing a new generation of AI-aided e-participation public services Yuri Misnikov, Viktoria Samoilava, UK/Belarus	

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<p><b>41</b></p>	<p><b>Interdisciplinary Approach to Industrial Design</b> Co-Chairs: Cliff Shin and Yong-Gyun Ghim, USA</p>	<p><b>IPID</b></p>
<p>8:30-10:00 AHFE 5: SPRUCE</p>	<p>Exploring the impact of colors, materials, finishes (CMF) and lights on user perceptions of service robots Mythili Emani, Yong-Gyun Ghim, USA</p> <p>Exploration between visual complexity and simplicity Cliff Shin, USA</p> <p>Designing adaptive wearables for children with cerebral palsy: A holistic approach to lifestyle-centric rehabilitative, assistive, &amp; diagnostic garment design Hannah Ritchie, Min Kang, Jeff Feng, Elham Morshedzadeh, Jose Luis Contreras-Vidal, Shantanu Sarkar, Aime Judith Aguilar Herrera, Paige Willson, USA</p> <p>Cohesive design: A desire-driven framework for transformative innovation Joon Park, USA</p> <p>Empowering older adults with AI agent-driven medication management: Enhancing adherence, independence, and health outcomes Muhammad Tanvir Akanda, Min Kang, USA</p> <p>Reshaping creative workspaces: Leveraging the transformative power of spatial computing to redefine workspaces in the design process Dillon Narcisse, Min Kang, USA</p>	
<p><b>42</b></p>	<p><b>Kansei Design</b> Co-Chairs: Weilin Cai and Jiayi Zhang, China</p>	<p><b>KE</b></p>
<p>8:30-10:00 AHFE 6: CRANE</p>	<p>Analysis of consumer response to promotional posts by influencers Aina Ishikawa, Kohei Otake, Japan</p> <p>Emotion-driven design of new energy vehicle wheel hubs: Integrating Kansei engineering and generative adversarial networks Yi Wang, Meiyu Zhou, Zhengyu Wang, Weilin Cai, China</p> <p>Handheld gimbal camera design based on Kansei Engineering and TRIZ Menghan Xia, Meiyu Zhou, China</p> <p>Form design of manual wheelchair products based on evaluation grid method and BP neural network Weilin Cai, Meiyu Zhou, Yi Wang, Zhengyu Wang, China</p> <p>Ancient poetry imagery based on AIGC and Kansei engineering research for visual translation strategy Jiayi Zhang, China</p>	
<p><b>43</b></p>	<p><b>Towards Safer, Smarter and Sustainable Maritime Operations: Insights From Research and Practice</b> Co-Chairs: Amit Sharma, Norway and Steven Mallam, Canada</p>	<p><b>MAR</b></p>
<p>8:30-10:00 AHFE 7: EGRET</p>	<p>Non-standard work hours, accidents and injuries among seafarers. A systematic review Israel Nyarubeli, Bente Moen, Anette Harris, Ståle Pallesen, Norway</p> <p>Reframing procedures and teamwork for man overboard (MOB) scenarios on small MASS passenger ferries Staffan Bram, Nicole Costa, Victor Fabricius, Ted Sjöblom, Erik Nilsson, Sweden/Norway</p> <p>Navigating safety in the maritime sector: developing leadership skills through simulated environments Georgios Lykos, Nikolaos Ventikos, Greece</p> <p>Human-centered AI integration in nautical architecture: Enhancing design processes through emotion recognition and intelligent systems Laura Pagani, Paolo Gemelli, Alessandro Bertirotti, Mario Ivan Zignego, Italy</p> <p>A systematic curriculum review of ship energy efficiency content across global maritime education and training institutions Gift Bassegy, Susan Ebaretonbofa-Okonji, Kjetil Nordby, Etienne Gernez, Steven Mallam, Canada/Norway</p> <p>Understanding crew estimations for icebreaker assistance in ice-covered waters Mashrura Musharraf, Cong Liu, Jennifer Smith, Finland</p> <p>Alternative fuels for shipping: Implications for seafarers occupational safety and health Khanssa Lagdami, Dimitrios Dalaklis, Maximo Mejia, Jr., Sweden</p>	

<p><b>44</b></p>	<p><b>Design Research, Usability and User Experience</b> Co-Chairs: Miho Matsuzono, Japan and Julie Udell, UK</p>	<p>UUE</p>
<p>8:30-10:00 AHFE 8: IBIS</p>	<p><b>Research unravelled: The messiness of an evaluation project of LinkedIn for business-school connections in youth employment</b> Julie Udell, Daphne Kaklamanou, Paul Gorczynski, UK</p> <p><b>Enhancing thematic analysis with local LLMs: A scientific evaluation of prompt engineering techniques</b> Timothy Meyer, Carolyn Baker, Jonathan Keefe, USA</p> <p><b>Two-step experiment design for participative design thinking</b> Gioele Micheli, Seda Aydogdu, Bernhard Schick, Germany</p> <p><b>New service development process through UX research: Case study of Mercard"</b> Miho Matsuzono, Yasunobu Ito, Japan</p> <p><b>An investigation of influencing factors in co-participation usability test</b> Ahmed Alghamdi, Fang Chen, Kun Yu, Australia</p> <p><b>Evaluating soft keyboard parameters for tablet productivity: Usability-centric layouts</b> Ziyue Zhang, Yuan Xiang, Xinyi Gao, Wei Wang, Ye Sun, Jieli Kang, China</p>	
<p><b>45</b></p>	<p><b>Ergonomic Risk Analysis and Safety Implications</b> Co-Chairs: Roger Jensen and Carla Beckmann, USA</p>	<p>SMHF</p>
<p>8:30-10:00 AHFE 9: OSPREY</p>	<p><b>Impact of introducing sparse inertial measurement units in computer vision-based motion capture systems for ergonomic postural assessment</b> Hasnaa Ouadoudi Belabzioui, Pierre Plantard, Charles Pontonnier, Georges Dumont, Franck Multon, France</p> <p><b>Health at risk: How organizational culture impacts the health of oil and gas workers in Brazil</b> Eliel Oliveira, Francisco Lima, Dalisson Vieira, Vitor Fernando Gomes, Lucas Farah, Francisco José De Castro Moura Duarte, Brazil</p> <p><b>Examining crew resource management failures in helicopter EMS accidents: Identifying contributing factors and safety implications</b> Carla Beckmann, Paige Lawton, Scott Shappell, Albert Bouquet, USA</p> <p><b>Empirical analysis of earbud output levels across various devices for user safety</b> Bankole Fasanya, Efreem Reeves, USA</p> <p><b>Transitioning workplace risk assessments from qualitative to quantitative</b> Roger Jensen, USA</p> <p><b>Major epidemic public health safety sign text messages: Grounded analysis of WHO website texts</b> Regina W. Y. Wang, Jiacheng Wang, I Ning Liu, Taiwan</p>	
<p style="text-align: center;">REFRESHMENTS: 10:00-10:30 • FOYER</p>		
<p><b>46</b></p>	<p><b>Motivating Engineering II</b> Co-Chairs: Chang Liu and Weijie Jiang, China</p>	<p>APD</p>
<p>10:30-12:00 AHFE 1: GRIFFIN A</p>	<p><b>User-centered sustainable product lifecycle management platform design</b> Yuan Quanjingzi, Mingjiu Yu, Deng Kai Chen, China</p> <p><b>The influence of non-park urban greenery on the pedestrian mobility of seniors: A methodological framework for the analysis of affective states</b> Marcelo Sagot Better, Agnieszka Ptak-Wojciechowska, Agata Gawlak, Dariusz Brzeziński, Poland</p> <p><b>The impact of visual design elements in tea bag packaging on consumer behaviour: A prototype and pilot study</b> Chang Liu, Mat Redhuan Samsudin, Yuwen Zou, China</p> <p><b>Product design of parent-child interaction based on intergenerational integration theory</b> Weijie Jiang, Xin Chen, China</p> <p><b>Context-based interactive experience design system for children's food education</b> Xinyu Zhao, Wenxuan Yang, China</p>	

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<b>47</b>	<b>Design for Inclusion for Special Population, Youth and Ageing Society</b> Co-Chairs: Carsten Röcker, Germany and Qiuyu Lin, UK	DI
10:30-12:00 AHFE 2: GRIFFIN B	<p>How to implement digital assistive technology systems on the labour market for persons with disability Annika Reinersmann, Mario Heinz-Jakobs, Eckard Bicker, Carsten Röcker, Germany</p> <p>Olfacare: A portable testing and rehabilitation assistance service designed for groups with olfactory dysfunction Qiuyu Lin, Kaiyuan Tang, Tianming Xu, UK</p> <p>Subjective evaluation of identifying boundaries of railroad crossing by the visually impaired based on a walking experiment Sota Matsui, Tomoyuki Inagaki, Shoichiro Fujisawa, Japan</p> <p>SchoolChanger: A model for engaging youth in school design to foster inclusivity and promote well-being Beata Fabisiak, Robert Kłos, Anna Jankowska, Poland</p> <p>Design for inclusion: Applying the concept of the superhero sensory garden to support NGOs and public institutions in fostering children's well-being Robert Kłos, Beata Fabisiak, Poland</p>	
<b>48</b>	<b>Human-Computer Interaction and Artificial Intelligence</b> Co-Chairs: Elizabeth Mezzacappa, USA and Laura Pagani, Italy	HCI
10:30-12:00 AHFE 3: GRIFFIN C	<p>AI agents as knowledge navigators: A conceptual framework for multi-agent systems in scientific knowledge management Paolo Gemelli, Laura Pagani, Mario Ivan Zignego, Alessandro Bertirotti, Italy</p> <p>Exploring inductive and deductive qualitative coding with AI: Investigating inter-rater reliability between large language model and human coders He Zhang, Chuhao Wu, Jingyi Xie, Fiona Rubino, Sydney Graver, Jie Cai, Chanmin Kim, John Carroll, USA</p> <p>Enhancing the Double Diamond: Human-AI co-creation in UI design through AIGC Integration Risheng Liang, Sauman Chu, Lizhu Zhang, USA</p> <p>Long seconds: How AI text-loading design affects the subjective feeling of waiting for users Jiwei He, Chien-Hsiung Chen, Taiwan</p> <p>Soldier perspectives in AI and autonomous systems Elizabeth Mezzacappa, Dominic Cheng, Nikola Jovanovic, Jose Rodriguez, Alexis Cady, Robert Demarco, Darnell Simon, Jessika Decker, Nasir Jaffery, Hillary Rogers, USA</p> <p>A metaverse where users, NPCs and AI agents can coexist Panagiotis Markopoulos, Jouni Smed, Finland</p>	
<b>49</b>	<b>Advances in Naval Aviation Training: Government Perspectives</b> Co-Chairs: Beth Atkinson and Emily Gisick, USA	HFSIM
10:30-12:00 AHFE 4: PINE	<p>Challenges associated with developing mixed reality flight simulators Brittany Neilson, Stephanie Fussell, Summer Rebensky, Erik Rodriguez, USA</p> <p>Human factors considerations for live, virtual, and constructive (LVC) training systems Joseph Geeseman, USA</p> <p>Building justified confidence through explainable AI: Enhancing decision-making in naval operations John Killilea, USA</p> <p>Spatial disorientation and cybersickness: Aircrew training applications Richard Arnold, F. Eric Robinson, USA</p> <p>Human systems integration best practices in the application of artificial intelligence and automation technology Jim Pharmed, USA</p>	
<b>50</b>	<b>Between Tradition and Innovation in Preventive Medicine: Polish School of Safe Falling II</b> Co-Chairs: Roman Maciej Kalina and Paweł Adam Piepiora, Poland	PMIA
10:30-12:00 AHFE 5: SPRUCE	<p>Likelihood of injury from falls in different external and internal circumstances for young adults Artur Kruszewski, Artur Kalina, Bartłomiej Gąsienica Walczak, USA</p> <p>Survival in the real and digital world – an example of innovative support for preventive medicine using INNOAGON methods Robert Bał, Anna Wicher, Patryk Wicher, Poland</p> <p>INNOAGON and physical education in modern education Paweł Adam Piepiora, Poland</p> <p>Virtual University of Preventive Medicine and Survival Roman Maciej Kalina, Poland</p>	



<p><b>51</b></p>	<p><b>Innovations in Digital Technology for Cultural Heritage in Communication</b> Co-Chairs: Yaojiong Yu, UK and Huang Xinran, China</p>	<p>HFCD</p>
<p>10:30-12:00 AHFE 6: CRANE</p>	<p>Improving watching comfort of live free viewpoint video by catch-up playback Taisei Kudo, Chun Xie, Itaru Kitahara, Japan</p> <p>Design model of museum IP special exhibition: Standardization of workflow Huang Xinran, China</p> <p>Dynamic narrative frameworks: Merging creativity and logic through systematic card-based interactivity Yaojiong Yu, UK</p> <p>Let the earth warm up at most 1.5°C: The application of information visualization design in climate change communication Yixuan Wu, Tiange Zhou, China</p> <p>From data to insights: Perceiving museum experiences through Natural Language Processing of Social Media Corpus Xueqi Liu, Zhiping Qu, China</p> <p>Exploring generative AI empowerment in city brand building from a human-factors perspective: An empirical study based on Wuhan City emoji Qian Bao, Fangchao Yang, Pinzhe Zhao, UK</p> <p>Cultural heritage in the digital age: Interaction design strategies for the preservation of porcelain of the Liao Dynasty Yu Hu, Qiangqiang Fan, Xinyi Wang, China</p>	
<p><b>52</b></p>	<p><b>Knowledge and Creating Value in Teams, Organizations, Communities, and Societies</b> Co-Chairs: Yasunobu Ito and Youji Kohda, Japan</p>	<p>HSSE</p>
<p>10:30-12:00 AHFE 7: EGRET</p>	<p>Managing large-scale research facilities for innovation: Stakeholder approaches to institutional collaboration in academia Takashi Onoda, Yasunobu Ito, Japan</p> <p>Approaches and issues in ‘patient-centered drug development’ in clinical trials: Case studies of Japanese CRCs Etsuko Sugai, Yasunobu Ito, Japan</p> <p>Examining healthcare from the perspective of ‘patients as people living their lives’: Conceptions of service design anthropology Yasunobu Ito, Japan</p> <p>Using Fieldnotes to enhance general practitioner training Kazuoki Inoue, Shin-ichi Taniguchi, Yasunobu Ito, Japan</p> <p>The process of explaining secondary findings in cancer genome panel testing, putting into consideration patient benefit Kazuo Sakai, Yasunobu Ito, Japan</p> <p>The potential for business development using a service-oriented approach in traditional crafts: A case study of Japanese Kaga Yuzen Yuka Ishiba, Yasunobu Ito, Japan</p>	
<p><b>53</b></p>	<p><b>Training and Emergency Preparedness I</b> Co-Chairs: Yang Cai and Caleb Weintraub, USA</p>	<p>TELS</p>
<p>10:30-12:00 AHFE 8: IBIS</p>	<p>A generalized combat lifecycle framework for marksmanship training and assessment of warfighter readiness Caleb Weintraub, Dan Shultz, Lauren Reinerman-Jones, USA</p> <p>Rediscovering puzzles Yang Cai, Talia Perez, USA</p> <p>Towards co-design workshops based on data-driven context detection: A pilot reflection workshop in childcare Yuki Taoka, Sawako Fujita, Shigeru Owada, Shiori Fujimaki, Kaho Kagohashi, Momoko Nakatani, Shigeki Saito, Japan</p> <p>Understanding student experiences in remote learning setup: Qualitative analysis of causes and coping mechanisms for workload, stress and fatigue Raymond Freth Lagria, Lorelie Grepo, Philippines</p>	

<b>54</b>	<b>Metaverse, Virtual Environments and User Experience II</b> Co-Chairs: I Nyoman Natanae, Indonesia and Francesca Massa, Italy	<b>HFGD</b>
10:30-12:00 AHFE 9: OSPREY	<p>Enhancing free walking in virtual environments with warning walls: A pilot study on redirected walking using machine learning agents I Nyoman Natanae, Chien-Hsu Chen, Wei-Ting Lu, Indonesia/Taiwan</p> <p>Impact of cognitive load on learning in immersive virtual reality environments Francesca Massa, Sara Buonocore, Raffaele De Amicis, Andrea Tarallo, Giuseppe Di Gironimo, Italy</p> <p>Analyzing psychological and neurophysiological responses to stress- and relaxation-inducing virtual reality environments: A multimodal approach Ankit Arvind Prasad, Shashank Laxmikant Bidwai, Ashutosh Jitendra Zavar, Diven Ashwani Ahuja, Vishnunarayan Girishan Prabhu, USA</p>	
12:00-13:00 • ENJOY LUNCH AT THE RESTAURANT OF YOUR CHOICE		
<b>55</b>	<b>Sensory Engineering and Emotion II</b> Co-Chairs: Keiichi Watanuki and Kazunori Kaede, Japan	<b>APD</b>
13:00-14:30 AHFE 1: GRIFFIN A	<p>Consideration of visibility in the Kuiper Belt focusing on the placement of objects Ryo Ono, Keiichi Watanuki, Kazunori Kaede, Japan</p> <p>Evaluation of UX using biometric emotion and intensity estimation machine learning models Yuki Fujii, Keiichi Watanuki, Kazunori Kaede, Yusuke Osawa, Japan</p> <p>Dynamic balance ability estimation method using plantar pressure measurement for developing shoes to assess daily living walking ability Hideyuki Nagashio, Yusuke Osawa, Keiichi Watanuki, Japan</p> <p>Construction of a PointNet-based autoencoder using a 3D scene dataset for feature extraction from indoor space point clouds excluding interior details Takahiro Miki, Yusuke Osawa, Keiichi Watanuki, Japan</p> <p>Investigating the influence of takeover request warning methods on driver tension in level 3 automated driving Taiga Fukuzawa, Kazunori Kaede, Keiichi Watanuki, Japan</p> <p>Construction of a VR music live performance system to support improved sense of presence Shogo Yanaze, Keiichi Watanuki, Yusuke Osawa, Japan</p>	
<b>56</b>	<b>Advances in Workload Management, Training and Operations II</b> Co-Chairs: Weili Zhou and Yanrong Huang, China	<b>AVI</b>
13:00-14:30 AHFE 2: GRIFFIN B	<p>User-driven strategies to enhance cockpit comfort in new energy vehicles Tianxiong Wang, Weili Zhou, Long Liu, Jing Chen, Xian Gao, Tong Yu, China</p> <p>Flexible human-machine collaboration: The concept and case study of lunar surface exploration task Yanrong Huang, Manrong She, Chunhui Wang, Chao Zhu, Shanguang Chen, Zhizhong Li, China</p>	
<b>57</b>	<b>Systemic Structural Activity Theory</b> Co-Chairs: Inna Bedny and Alexander Yemelyanov, USA	<b>CN</b>
13:00-14:30 AHFE 3: GRIFFIN C	<p>Emotional maturity and war-related stress Oleksiy Chebykin, Inna Bedny, Marianna Skoromna, Olena Kosyanove, Ukraine/USA</p> <p>Enhancing decision-making in risk and uncertainty through OpenAI API integration Alexander M. Yemelyanov and Harikrishnan U. Nair, USA</p> <p>Psychological profiles of deceivers and their motives Oleksiy Chebykin, Olena Kosyanove, Inna Bedny, Ukraine/USA</p>	

<b>58</b>	<b>Social Engineering in Cybersecurity</b> Co-Chairs: Kitty Kioskli, Netherlands and Theo Fotis, UK	<b>CYBER</b>
13:00-14:30 AHFE 4: PINE	<p><b>Human factors and strategic approaches in cybersecurity: Threats for critical infrastructures in NIS2 domains</b>                  Kitty Kioskli, Leandros Maglaras, Theofanis Fotis, Emmanuel Varouchas, The Netherlands</p> <p><b>Charting trustworthiness: A socio-technical perspective on AI and human factors</b>                  Theofanis Fotis, Kitty Kioskli, Eleni Seralidou, UK</p> <p><b>Exploring how college students' mental models of cybersecurity threats predict cyber knowledge and hygiene</b>                  David Schuster, USA</p>	
<b>59</b>	<b>Cognitive Computing in Sociotechnical Environments</b> Co-Chairs: Lance Chong, Canada and Noushin Gheibi, Germany	<b>CCIoT</b>
13:00-14:30 AHFE 5: SPRUCE	<p><b>Evaluating glaze's effectiveness: A critical analysis of AI art protection through non-artist perspectives and common image transformations</b>                  Robert Nasyrov, Janina Bach, Pascal Laube, Germany</p> <p><b>Maxwell's Demon, System Boundary, and Interface ROI: The importance of logical integrity in UI/UX design and evaluation</b>                  Lance Chong, Canada</p> <p><b>Exploring democratization in industry via multi-agent systems: A firm-based case study</b>                  Noushin Gheibi, Stefan Boeschen, Germany</p> <p><b>Enhancing physiological readiness: From data to psychophysiological insights for decision-making support</b>                  Julia Tschuden, Florian Haid, Michael Schneeberger, Dominik Eder, Philipp Klöckl, Lucas Paletta, Markus Bergen, Anna Weber, Alexander Almer, Gerald Bauer, Thomas Hölzl, Austria</p> <p><b>Learning analytics using eye tracking-based biomarkers on serious games for adults with autism spectrum disorder</b>                  Lucas Paletta, Amir Dini, Martin Pszeida, Yannick Lieb, Michael Schneeberger, Jochen A. Mosbacher, Christian Poglitsch, Johanna Pirker, Austria</p>	
<b>60</b>	<b>Design for Sustainability and Experience in Urban Planning I</b> Co-Chairs: Alicja Maciejko, Poland and Hülya Coskun, Turkey	<b>SUPI</b>
13:00-14:30 AHFE 6: CRANE	<p><b>Climate and sustainability in architecture: Analysis of challenges and limitations for universal solutions in the design of single-family houses</b>                  Alicja Maciejko, Michal Grzeskowiak, Poland</p> <p><b>Bridging subjective experience and objective measures: A novel method for assessing indoor wayfinding efficiency using virtual environments</b>                  Xiaohan Mei, Li Zhang, China</p> <p><b>Sustainability, and post-pandemic era - changing living and working conditions, housing and office models</b>                  Hülya Coskun, Turkey</p> <p><b>The current characteristics and spatial development model of Mongolian medical facilities</b>                  Jing Zhang, Guangtian Zou, Xintong Wei, China</p> <p><b>Human factors barriers to retrofitting historic residential properties in Edinburgh</b>                  W. Victoria Lee, UK</p> <p><b>Exploring the impact of European Green Policy on sustainable product design</b>                  Zhong Jianwen, Jun Zhang, China</p> <p><b>The importance of spatial experience in three houses designed by Rem Koolhaas and his contribution to interaction design</b>                  Fernando Hipolito, Helena Botelho, Portugal</p>	

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<b>61</b>	<p><b>Knowledge and AI in Sociotechnical Systems</b> Co-Chairs: Elizabeth Mezzacappa, USA and Adriana Salatino, Italy</p>	<b>SYSI</b>
13:00-14:30 AHFE 7: EGRET	<p><b>The impact of time constraints on moral decision-making during human-AI interaction</b> Adriana Salatino, Arthur Prével, Emilie Caspar, Salvatore Lo Bue, Italy/France/Belgium</p> <p><b>Is LLM a reliable risk detector? An evaluation of large language models in EMR-related medical incident detection</b> Siyuan Zhang, Xiuzhu Gu, Japan</p> <p><b>Knowledge of results (KR) and vigilance: Are feedback effects due to information or motivation?</b> Yazmin Diaz, Peter Hancock, USA</p> <p><b>Leveraging digital twins and generative AI to alleviate loneliness among elderly adults living alone through smart flowerpot design</b> Yuqing Zhang, Shengfeng Qin, UK</p> <p><b>Human systems integration for human machine integrated formations</b> Elizabeth Mezzacappa, Dominic Cheng, Alexis Cady, Florence Chua, USA</p> <p><b>The benefits of adopting artificial intelligence-technologies in mitigation construction risk in the South African construction industry</b> Emmanuel Ayorinde, Libuseng Semakale, Fortune Aigbe, South Africa</p>	
<b>62</b>	<p><b>UX and Usability Evaluation for Healthcare and Virtual Environments</b> Co-Chairs: Zi Han Mei, China and Yassaman Khodadadeh, Iran</p>	<b>UUE</b>
13:00-14:30 AHFE 8: IBIS	<p><b>Development and usability assessments of a patient medical summary application for dental clinicians</b> Shuning Li, Biju Cheriyan, Srinija Kasaraneni, Jason Mengjie Mao, Thankam Thyvalikakath, USA</p> <p><b>Exploring user preferences for health-focused digital nudges: Insights from a preliminary study</b> Yassaman Khodadadeh, Shahrzad Jafari, Iran</p> <p><b>Multi-scale spatiotemporal attention-based sign language recognition</b> Xiao Hui Hou, Zi Han Mei, Yingxiao Han, Zidan Sun, China</p> <p><b>Exploring microinteractions in online grocery shopping: A comparative analysis using co-discovery user testing</b> João Morisso, Marcelo Gitirana Gomes Ferreira, Alexandru Cristian Rusu, Oriella Ortiz, Kevin Vera, Brazil</p> <p><b>Waiting information design based on outpatients' waiting information needs and time cognition</b> Hui Ran Xie, Xiaodong Gong, China</p> <p><b>Creating human-centered museums: User experience in digital exhibitions from a multimodal perspective</b> Wen Zhong, Jiaxuan Gong, Yawei Hao, China</p> <p><b>Impact of visual cues on multi-person comment recognition and user experience in online design platform</b> Xiao Ma, Chien-Hsiung Chen, China</p>	
<b>63</b>	<p><b>Human Error and Performance Analysis I</b> Co-Chairs: Keisuke Takeuchi, Japan and Josue Franca, Brazil</p>	<b>HERRP</b>
13:00-14:30 AHFE 9: OSPREY	<p><b>Modeling cognitive behavior of human errors based on ACT-R: Design of color cued operation switching task</b> Keisuke Takeuchi, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Japan</p> <p><b>Reanalyzing the BP Texas City Refinery Accident with FRAM (Functional Resonance Analysis Method) - 20 years of complexity and learning</b> Josue Franca, Erik Hollnagel, Brazil</p> <p><b>Important human actions for advanced reactors: Implications for risk analysis</b> Jooyoung Park, Torrey Mortenson, Rachael Hill, Casey Kovesdi, Ronald Boring, USA</p> <p><b>Rancor-hunter -data collection and virtual operator modeling tool</b> Thomas Ulrich, Ronald Boring, Roger Lew, USA</p>	
REFRESHMENTS: 14:30-15:00 • FOYER		

<b>64</b>	<b>Social and Work Environment Risk Assessment</b> Co-Chairs: Shinichi Fukuzumi, Japan and Javed Anjum Sheikh, Pakistan	SOE
15:00-16:30 AHFE 1: GRIFFIN A	Changing work style in activity based working (ABW) Shinichi Fukuzumi, Keiko Kasamatsu, Japan Mitigating Pakistan's smog crisis through predictive modeling Javed Anjum Sheikh, Usman Javed Sheikh, Farzan Sheikh, Pakistan Career constructing and management as a determinant of career success in the globalizing society Agnieszka Cybal-Michalska, Poland Influence of controlled breaks on mental fatigue: Physical activity break vs. social networking break Manasi Deshpande, Chen Ling, Elena Cheng, USA Pilot study: Ergonomic risk assessment of musculoskeletal injuries among healthcare office workers in Saudi Arabia Ali Aljaroudi, Zainab Al Ibrahim, USA Visual ergonomics and its applications in complex systems Li-wei Qiu, Xiao Zhao, Hong-bao Wang, Liang-kui Jiang, Zhi-yong Liu, Ze-rui Xiang, China	
	<b>65</b>	<b>Human Factors and Artificial Intelligence in Decision Support and Project Management</b> Chair: Vesa Salminen, Finland
15:00-16:30 AHFE 2: GRIFFIN B	Human aspects in situation analysis, resource control, and operation command Vesa Salminen, Matti Pyykkönen, Finland Optimizing fundraising appeals: Using data and machine learning Emmanuel Nkansah, Dandan Kowarsch, USA Systems intelligence and perceived teamwork efficiency in an organizational context Alekski Juvonen, Satu Jumisko Pyykko, Finland The impact of leadership on establishing a data-driven organization: A qualitative study Stefan Niggli, Vinzenz Krause, Alexander Nedelchev, Sebastian Smerat, Germany	
	<b>66</b>	<b>Implementation Challenges of Artificial Intelligence in Transportation</b> Co-Chairs: Debra Henneberry and Hugh Salehi, USA
15:00-16:30 AHFE 3: GRIFFIN C	The role of simulated air traffic control environment (SATCE) in the implementation of ICAO level 4 requirements William Aranda, Dimitrios Ziakkas, Debra Henneberry, Peru/USA The role of simulated air traffic control environment (SATCE) in the aviation performance Dimitrios Ziakkas, Neil Waterman, Anastasios Plioutsias, USA/UK The role of human factors in the certification of eVTOLs in the artificial intelligence (AI) era Dimitrios Ziakkas, Debra Henneberry, Germany The implementation of AI in the eVTOL safety management systems Dimitrios Ziakkas, Gustavo Sanchez Cortes, Debra Henneberry, USA Can drivers construct accurate mental models of autopilot? Hugh Salehi, USA The role of Competency-Based Training and Assessment (CBTA) in aviation resilience Ibrahim Sarikaya, Dimitrios Ziakkas, Konstantinos Pechlivanis, Turkey	
	<b>67</b>	<b>Approaches to Aging Workforce and Special Needs</b> Co-Chairs: Sarah Allahviridi, USA and Ana Cláudia Antunes, Brazil
15:00-16:30 AHFE 4: PINE	Kinematic comparison of biomechanical gait of elderly women with different indoors footwear Ana Cláudia Antunes, Alexandre Anibal Campos Bonilla, Milton Cinelli, Brazil Understanding older adults' perceptions of AI use in financial decisions Sarah Allahviridi, Maryam Zahabi, Farshid Abdi, Marcia Ory, Ruihong Huang, Minh-Nguyet Hoang, Qiping Fan, Laura Kim, Logan Dubose, USA A Kano model-based design for age-friendly shopping carts in large commercial malls Xinxin Nie, China	

Monday, July 28

<b>68</b>	<b>HSSE Future Directions and Planning for 2026</b> Co-Chairs: Christine Leitner, UK, Clara Bassano, Italy and Debra Satterfield, USA	<b>HSSE</b>
15:00-16:30 AHFE 5: SPRUCE	<p>Future direction of research topics, publication and panel topics</p> <p>Identification of new panel chairs, mentorship, networking and leadership roles</p>	
<b>69</b>	<b>Advances in Naval Aviation Training: Industry Perspectives</b> Co-Chairs: Beth Atkinson and Emily Gisick, USA	<b>HFSIM</b>
15:00-16:30 AHFE 6: CRANE	<p><b>Accelerating mission readiness with a whole-person human proficiency tracking platform</b> Nancy Belmont, USA</p> <p><b>Novel technology concepts for training: Innovations, challenges, and applications</b> Jessyca Derby, USA</p> <p><b>Next generation aviator training, what's needed for today</b> Scott Scheff, USA</p> <p><b>Instructional tools for supporting performance assessment in dynamic training environments</b> Byon Williams, Perakath Benjamin, USA</p> <p><b>Enhancing sailor readiness through adaptive learning</b> Lauren Glenister, Brice Colby, Sean Triplett, USA</p>	
<b>70</b>	<b>Driver Performance, Behavior and Physiology</b> Co-Chairs: Didier Valdés, USA and Ting Wei, China	<b>RR</b>
15:00-16:30 AHFE 7: EGRET	<p><b>Drivers' behavior while interacting with E-Scooters in urban areas: An assessment using driving simulation</b> Carol Perello, Didier Valdés, Alberto Figueroa, Ivette Cruzado, Angel Sanabria, USA</p> <p><b>Advanced driver assistance systems and emotion-based driver behavior</b> Anthony Waters, Vincent Paglioni, USA</p> <p><b>Motion sickness detection in autonomous vehicle with biosensors: A review</b> Yaorun Zhang, Xu Sun, Yifan Yang, Juanfen Xu, Qingfeng Wang, Jiang Wu, China</p> <p><b>Elderly-friendly design of in-vehicle navigation interface in new energy vehicles from the perspective of implicit interaction</b> Tianxiong Wang, Yuqi Han, China</p> <p><b>Recognising driver anger using multiple physiological signals</b> Ting Wei, China</p> <p><b>Developing a naturalistic testing methodology for driver engagement with ADAs systems in open-road scenarios in China</b> Sergio Cauto González, Francesco Deiana, Cristina Periago, Elena Castro Gonzalez, James Jackson, Liu Jiao Wang, Spain</p>	
<b>71</b>	<b>Attitudes and Trust in Remote and Autonomous Vehicles</b> Co-Chairs: Sakura Akahoshi, Japan and Christian Jernberg, Sweden	<b>RR</b>
15:00-16:30 AHFE 8: IBIS	<p><b>Trust in images of autonomous vehicle brands in Japan</b> Sakura Akahoshi, Kengo Shintani, Yota Sekiguchi, Tomoya Sakata, Samuel Sanjaya, Makoto Itoh, Japan</p> <p><b>Operating in the unknown – the difference in remote operators' attitudes based on their knowledge of the task at hand</b> Christian Jernberg, Jan Andersson, Sweden</p> <p><b>How does adaptive cruise control use impact driver behaviors, mental models, and trust and perception in the system?</b> Mary Aldugom, Sarah Izen, Iona Scully, Christian Hoyos, David Cades, USA</p> <p><b>The effect of AR HUD on enhancing the driver's trust in automated vehicles operation under high-risk scenarios</b> Hongyu Hu, Yunhan Liang, Xinying Liang, Xuelian Zheng, China</p> <p><b>The innovation effect: How futurism shifts risk perception in vehicles</b> Hanna Neroj, Bruce Walker, USA</p> <p><b>Exploring the role of predictability in fostering passenger trust in autonomous ride-hailing: A case study of Apollo Go</b> Longyu Yuan, China</p> <p><b>Sense of control in autonomous driving: A dual-pathway framework</b> Haoyu Teng, Churu Yu, Lehan Chen, Qi Gao, Zaifeng Gao, China</p>	

<b>72</b>	<b>Workplace Safety Awareness and Culture</b> Co-Chairs: Mariana Martins and Beatriz Bandeira Dos Santos, Brazil	<b>SMHF</b>
15:00-16:30 AHFE 9: OSPREY	<p><b>Work and safety in the decommissioning of flexible lines</b> Laís Bubach Carvalho Simão, Beatriz Bandeira dos Santos, Ricardo Bruno Félix Nunes, Eduardo Ribeiro Nicolosi, Claudio Violante Ferreira, Marcelo Igor Lourenço de Souza, Francisco José de Castro Moura Duarte, Brazil</p> <p><b>Safety in end-of-life offshore oil platforms</b> Mariana Martins, Vitor Fernando Pereira, Francisco José De Castro Moura Duarte, Brazil</p> <p><b>Impacts of safety culture in an oil and gas research laboratory in Brazil</b> Lucas Farah, Mariana Martins, Eliel Oliveira, Francisco José De Castro Moura Duarte, Adson Eduardo Resende, Brazil</p> <p><b>A fast and structured approach for supporting an effective adoption of near miss management systems</b> Diego de Merich, Armando Guglielmi, Mauro Pellicci, Maria grazia Gnoni, Fabiana Tornese, Italy</p> <p><b>The impact of cultural dimensions and supervisory leadership on safety climate in multinational oil and gas operations</b> Alexander Paselk, Canada</p> <p><b>From complacency to competence: human-centered strategies for safer automation</b> Ibrahim M. Balharith, Saudi Arabia</p>	

<b>73</b>	<b>Innovations in XR and Digital Environments</b> Co-Chairs: Jin-i Hong, South Korea and Allan Chung, Taiwan	<b>AATDE</b>
8:30-10:00 AHFE 1: GRIFFIN A	<p><b>Leveraging exoskeletons to reduce musculoskeletal disorders in aluminum forging: A case study</b> Sumona Sen, Patrick Poettters, Germany</p> <p><b>Human-centric approach for developing XR applications in the space domain</b> Kaj Helin, Jaakko Karjalainen, Timo Kuula, Finland</p> <p><b>Generational physical ability differences in developing a universal XR metaverse platform for inclusive digital leisure culture: Focused on bowling</b> Jin-i Hong, Yun-hwan Lee, Yeong-hun Kwon, Jongsung Kim, Minsung Yoon, Jongbae Kim, South Korea</p> <p><b>Exploring key virtual reality features to enhance effective communication in spatial design</b> Allan Chung, Yo-wen Liang, Taiwan</p> <p><b>Harnessing eye-tracking technology to analyze Gen Z's engagement with digital marketing</b> Emad Bataineh, UAE</p>	
<b>74</b>	<b>Human Factors in Artificial Intelligence and Social Computing II</b> Co-Chairs: Faraz Ahangar, USA and Aravind Kumar Saride, India	<b>AISC</b>
8:30-10:00 AHFE 2: GRIFFIN B	<p><b>AI optimization of resolution strategy in utility billing and revenue assurance</b> Faraz Ahangar, Zining Yang, Lauren Huang, USA</p> <p><b>Behavioural intentions of natural farming farmers to adopt digital platforms for purchasing inputs: A structural equation modeling-based multi-group analysis</b> Aravind Kumar Saride, Mrigank Sharad, India</p> <p><b>AIToys: A conceptual definition and future research agenda</b> Katriina Heljakka, Pirta Ihamäki, Finland</p> <p><b>FITMag: A framework for generating fashion journalism using multimodal LLMs, social media influence, and graph RAG</b> Jinda Han, Mengyao Guo, Shanghao Li, Kailash Thiyagarajan, Zhinan Cheng, Li Zhao, USA</p> <p><b>AI tool compliance reporting: A heuristic analysis of survey data using natural language processing</b> Aimee Roundtree, USA</p> <p><b>Revolutionizing logistics management with blockchain technology</b> Ayodeji Dennis Adeitan, Clinton Aigbavboa, South Africa</p>	

<b>75</b>	<b>Design for All and Cultural Heritage</b> Co-Chairs: Michela Benente, Italy and Satoshi Kose, Japan	<b>DI</b>
8:30-10:00 AHFE 3: GRIFFIN C	<p><b>How to design inclusion in cultural heritage: An innovative approach</b> Michela Benente, Valeria Minucciani, Francesco Paganelli, Italy</p> <p><b>Can the risk caused by design changes against population stereotypes be avoided: Issue of direction-of-motion of cooking controls</b> Satoshi Kose, Japan</p> <p><b>Redeeming the copy: A valuable tool for enhancement of cultural experience</b> Michela Benente, Valeria Minucciani, Francesco Paganelli, Italy</p> <p><b>Implementing design for all: The role of ANAs in addressing human diversity</b> Avril Accolla, Xinyang Shan, China</p> <p><b>Design method of the integration of Chinese and French culture: The Case of product packaging design</b> Huajie Wang, Zhang Jin, Xingen Yao, Rong Chen, Xikai Tan, China/UK</p> <p><b>Human and artificial systems in the design for social innovation: critical issues and opportunities.</b> Benedetta Terenzi, Giovanna Binetti, Sofia Busti, Italy</p>	
<b>76</b>	<b>Physical Ergonomics Evaluation I</b> Co-Chairs: Ali Aljaroudi, USA and Ainslie Scott, UK	<b>PEHF</b>
8:30-10:00 AHFE 4: PINE	<p><b>Combatting the heat: Assessing heat stress risks in aircraft maintenance environments</b> Ali Aljaroudi, USA</p> <p><b>Influence of footstep sounds induced by varying shoe types and gait frequencies on initial impressions</b> Qihan Sun, Lu Chen, Minshi Fu, Linzi Chang, China</p> <p><b>Dynamic analysis of skin deformation for ergonomic design of compression leggings</b> Aosi Wang, Rong Liu, China</p> <p><b>Occupational risk factors contributing to musculoskeletal disorders among computer-user bank office employees</b> Rajinder Moom, Neelam Moom, India</p> <p><b>Effects of the global pandemic on indoor air quality in dental surgeries: Evaluating practical alternatives to current guidelines and regulations in Scotland</b> Ainslie Scott, UK</p> <p><b>Sensory perception of surface textures in handheld operational products: A case study of E-Bike handgrips</b> Si Chen, Yuanyuan Liu, China</p> <p><b>Improving load distribution and thermal comfort of tactical units through enhanced load bearing vests</b> Lloyd Ng, Rensheng Deng, Singapore</p>	
<b>77</b>	<b>AI in Workplaces and Professional Practice</b> Co-Chairs: Abdulrahman Abdelrazek, Germany and Elizabeth Baidoo, USA	<b>GIC</b>
8:30-10:00 AHFE 5: SPRUCE	<p><b>Artificial intelligence in self-service: Ushering a new era of customer interaction</b> Jürgen Müller, Abdulrahman Abdulrazek, Germany</p> <p><b>Cloud computing innovations in the financial services industry: Benefits, challenges, and opportunities</b> Elizabeth Baidoo, Brenda Eschenbrenner, USA</p> <p><b>Understanding AI anxiety: Examining human-level challenges in employee adoption and collaboration with generative AI</b> Zhe Li, Xinyue Zhang, China</p> <p><b>Artificial Intelligence and media literacy - navigating information in a digital world</b> Lora Metanova, Neli Velinova, Bulgaria</p> <p><b>Control or collaboration? Reflecting on AI integration in professional practices</b> Silvia Albano, China</p>	



<p><b>78</b></p>	<p><b>Human Computer Interaction Applications: Efficiency and Performance I</b> Co-Chairs: Pattaraorn Yu, Singapore and Nicholas Basile, USA</p>	<p>HCI</p>
<p>8:30-10:00 AHFE 6: CRANE</p>	<p>Toward intuitive interaction: A cognitive workflow analysis of human-robot interaction in extended reality interfaces Pattaraorn Yu, Arisara Jiamsanguanwong, Gim Song Soh, Singapore A framework for the classification and evaluation of game interaction Sujan Shrestha, Nicholas Basile, USA Construction of Fitz's Law Model for ship operator in long voyage Ning Li, Guofang Wang, Jing Fang, China The new fear of missing out (FOMO): Reflecting on the human impact of overly positive social media through interactive installation Lina Xu, Haichuan Lin, Menglu Wang, Meng Nie, China Object-oriented encapsulation-based virtual equipment modeling for digital-twin production systems Fengyi Feng, Xiaojun Liu, China Novice and expert performance in a knowledge graph-driven assistive dialogue system Shannon Briggs, Emily Conway, Clare Arrington, Kelsey Rook, Tomek Strzalkowski, Abraham Sanders, Erfan El-Hossami, Collen Roller, USA Scaling usability in logistics software: Building a framework-agnostic design system Welington Silva, USA</p>	
<p><b>79</b></p>	<p><b>Trust, Awareness, and Collaboration in AI and Robotics</b> Co-Chairs: Elizabeth Mezzacappa and Behzad Esmaeili, USA</p>	<p>HFRDUS</p>
<p>8:30-10:00 AHFE 7: EGRET</p>	<p>Visual allocation of teams in the construction industry: Team situation awareness under information overload in human-AI collaboration Ching-yu Cheng, Liuchuan Yu, Lap-fai Yu, Behzad Esmaeili, USA Evolution of the human factors in forestry automation: From manually operated forestry machinery to fully autonomous systems Alexander Kreis, Mario Hirz, Karl Aumeier, Austria Blocking system for autonomous flight drones Ryushun Oka, Jumpei Tahara, Ichiro Koshijima, Kenji Watanabe, Japan An AI-based adaptive pipeline for automated feedback in immersive robotics learning Mohammadreza Akbari Lor, Bhanu Vodinepally, Tisa Islam Erana, Bhavleen Kaur, Giancarlo Perez, Seth Corrigan, Shu-ching Chen, Mark Finlayson, Biayna Bogosian, Shahin Vassigh, USA Trust in AI and autonomous systems Elizabeth Mezzacappa, Dominic Cheng, Lucas Hess, Nikola Jovanović, Robert Demarco, Jose Rodriguez, Madeline Kiel, Kenneth Short, Alexis Cady, Jessika Decker, Mark Germar, Keith Koehler, Nasir Jaffery, Lawrence D'aries, USA</p>	
<p><b>80</b></p>	<p><b>Industry 4.0 and Intelligent Manufacturing Technologies</b> Co-Chairs: Daniel Schilberg and Stella Kolarik, Germany</p>	<p>MFG</p>
<p>8:30-10:00 AHFE 8: IBIS</p>	<p>Smart factory and industry 4.0: A survey on advancements, technologies, methods and perspectives of digital transformation in manufacturing Haris Karic, Daniel Schilberg, Arockia Selvakumar Arockiadoss, Germany Perceived augmented reality affordances in logistics Stella Kolarik, Germany A framework for sustainable logistics 4.0: The Polish perspective Beata Mrugalska, Brigita Gajsek, Poland Ergonomics and balancing of production lines, case study: Hand cream line in a cosmetics packaging plant Leonardo A. Quintana, Oscar Bernal, Franklin Jose Torrealba, Colombia Complexity reduction using AI-based correlation analysis using the example of operator actions in a thermal waste treatment plant Wolfgang Krause, Daniel Schilberg, Germany Evaluating changeable production logistics: A multicriteria approach Pia Vollmuth, Hanna Hüttner, Johannes Fottner, Germany</p>	
<p>REFRESHMENTS: 10:00-10:30 • FOYER</p>		

Tuesday, July 29

<p><b>82</b></p>	<p><b>Explorations in Design Education</b> Co-Chairs: George Chow and Adam Feld, USA</p>	<p>IPID</p>
<p>10:30-12:00 AHFE 1: GRIFFIN A</p>	<p>Visualizing the future with the help of AI George Chow, USA Two is better than one: Demonstrated benefits of multiple industrial design internships Betsy Barnhart, Carly Hagins, USA Systems design approach to waste-to-energy transformation: A circular economy in the coffee industry and community Yasmine Almadi, Min Kang, USA Haptic affordance: A study in object recognition and feedback Adam Feld, USA SynTec: A low-cost eye-tracking and EEG-based diagnostic system for concussion assessment in sports Mohammadmehdi Mortazavi, Min Kang, Jeff Feng, USA</p>	
<p><b>83</b></p>	<p><b>Human Factors in Operational Management and Leadership</b> Co-Chairs: Heikki Ruohomaa and Vesa Salminen, Finland</p>	<p>HFBMS</p>
<p>10:30-12:00 AHFE 2: GRIFFIN B</p>	<p>Business management in the digital transformation era: Effective strategies for achieving competitive advantage Zahra Hamdani, Aicha Dif, Algeria PDCA-based smart problem-solving process for systematic failure management in SMEs Turgut Refik Caglar, Dogan Efe, Fatih Zor, Elena Andrushchenko, Roland Jochem, Germany Supporting small and medium-sized enterprises with smart city data for circular innovations Heikki Ruohomaa, Marina Weck, Vesa Salminen, Heidi Kerkola, Finland Evaluating virtual reality fire extinguisher training: A qualitative user experience analysis A K M Ishtyak Hossain, Rida Kamal, Janne Heilala, Jussi Kantola, Finland Assessing virtual reality fire extinguisher training effectiveness: A quantitative empirical study Rida Kamal, A. K. M. Ishtyak Hossain, Janne Heilala, Jussi Kantola, Finland Marketing and after-sale management strategies as determinants of customer satisfaction in the automotive industry Enrique Aarón García Vázquez, Carlos Merlo Zapata, Abraham Gordillo Mejía, Mexico</p>	
<p><b>84</b></p>	<p><b>Human Factors in Knowledge Management, Innovation and Human Intellectual Capital</b> Co-Chairs: Elizabeth Koumpan, USA and Phillip Tretten, Sweden</p>	<p>CIE</p>
<p>10:30-12:00 AHFE 3: GRIFFIN C</p>	<p>Challenges and strategies associated with recruiting, training, and retaining mining maintenance workers Phillip Tretten, Joel Löow, Prasanna Ilankoon, Sweden AI in a talent hunt: Unlocking the future of recruitment Anna Topol, Christopher Hyland, Elizabeth Koumpan, Laurentiu Gabriel Ghergu, USA The power of science fiction films on visionary creativity and innovations Andreas Eursch, Germany AI-driven talent management: Transforming workforce strategies in the digital age Sapheya Aftimos, Randa Diab-Bahman, Kuwait Enhancing project and logistics management through blockchain-driven innovation Ayodeji Dennis Adeitan, Clinton Aigbavboa, South Africa</p>	
<p><b>85</b></p>	<p><b>Applied Next-Generation Concepts in Human-Centered Design and Security I</b> Co-Chairs: Rahmira Rufus, USA and Reijo Savola, Finland</p>	<p>CYBER</p>
<p>10:30-12:00 AHFE 4: PINE</p>	<p>Leveraging complex access scenarios (CAS) to bridge human-centered HCI Rahmira Rufus, USA Towards scalable solutions of operational technology cybersecurity in smart energy networks Reijo Savola, Finland Navigating cyber threats: Evaluating the resilience of maritime officers to GPS disruptions Claire Giot, Laure Lejeune, Pedro Merino-Iaso, Aude Charbonnel, Nicolas Bessot, France Threats and security strategies for IoMT infusion pumps Ramazan Yener, Muhammad Hassan, Masooda Bashir, USA Enhancing data privacy in maritime operations with federated learning: A YOLOv7 object detection approach Vo Ngoc Thy Thao Vo, Amin Majd, Mehdi Asadi, Juha Kalliovaara, Tero Jokela, Jarkko Paavola, Finland</p>	

<p><b>86</b></p>	<p><b>Employing Human Factors throughout the Development of Innovative Naval Training Technologies</b> Co-Chairs: Beth Atkinson and Lee Sciarini, USA</p>	<p>HFSIM</p>
<p>10:30-12:00 AHFE 5: SPRUCE</p>	<p><b>Project link: Developing a mixed-reality flight simulator for Navy pilot training</b> Ada Mishler, Javier Rivera, Tashara Cooper, Lee Sciarini, USA</p> <p><b>Evaluating the usability of the primary phase radio instrument and operations trainer (P-RIOT)</b> Elaine Choy, Jeffrey Craighead, Joseph Cohn, USA</p> <p><b>Best practices for communicating human factors evaluation results to stakeholders</b> Emily Rickel, Emily Gisick, USA</p> <p><b>Evaluating effectiveness and usability of a multi-system approach to maintenance training</b> Matthew Pierce, Beth Atkinson, USA</p>	
<p><b>87</b></p>	<p><b>Physical Ergonomic Risk Assessment: Methods and Techniques</b> Co-Chairs: Mark Heidebrecht, USA and Alessio Silvetti, Italy</p>	<p>PEHF</p>
<p>10:30-12:00 AHFE 6: CRANE</p>	<p><b>Effects of glove type and gender on lateral (key) pinch strength performance</b> Wasim Alshammmary, Saudi Arabia</p> <p><b>Epidemiology-based ergonomic analysis for data driven decisions</b> Mark Heidebrecht, USA</p> <p><b>Posture analysis of a TV broadcast cameraman: A case study</b> Alessio Silvetti, Dimitri Mandolesi, Tiwana Varrecchia, Giorgia Chini, Alberto Ranavolo, Cristina Chieffo, Adriano Papale, Italy</p> <p><b>The biomechanics and epidemiology of shoulder injuries: Quantifying the risk accurately</b> Mark Heidebrecht, USA</p> <p><b>Assessing the impact of backpack carrying styles on users' discomfort</b> Md Mahabub Hasan, Nadia Islam Tanha, Sayeda Sufia Sumi, Kazi Saiful Islam, Yueqing Li, USA</p> <p><b>Influence of computer keyboard slope and wrist support height on users' discomfort</b> Sheikh Fuzael Rahman, Md Shahnur Alam, Safaul Islam Rohan, Yueqing Li, USA</p> <p><b>G-LLE system design: Gamified rehabilitation for children's lower limb therapy based on natural mapping</b> Yaqin Ping, Meng Han Li, En Guo Cao, China</p>	
<p><b>88</b></p>	<p><b>Product and Process Evaluation and Quality</b> Co-Chairs: Maurice Meyer, Germany and Kevin Owens, USA</p>	<p>PEQ</p>
<p>10:30-12:00 AHFE 7: EGRET</p>	<p><b>Effect of phase change material melting points on thermal protection behavior of firefighters' turnout gear</b> Susan Xu, Jonisha Pollard, Weihuan Zhao, USA</p> <p><b>Human-centered knowledge base for enhancing problem solving in supply chain quality management</b> Maurice Meyer, Think To Cong, Devarsh Pankajbhai Upadhyay, Roland Jochem, Germany</p> <p><b>Expanding technology and human readiness levels: Measuring the maturity of new Learning technology and content</b> Kevin Owens, Lisa Townsend, Joan Johnston, USA</p> <p><b>E-Learning as a catalyst for competence development in smart failure management: A SME-focused approach</b> Turgut Refik Caglar, Elena Andrushchenko, Lennart Frederik Müller-Stein, Christopher Wijayanto, Roland Jochem, Germany</p> <p><b>Optimization application and user experience evaluation system of knee brace</b> Su Wang, Yuelin Liu, Yue Zhang, China</p>	

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<p><b>89</b></p>	<p><b>Automation and AI to Enhance Aviation Operations</b> Co-Chairs: Nark Miller, USA and Adriana Dana Schmitz, Belgium</p>	<p>AVI</p>
<p>10:30-12:00 AHFE 8: IBIS</p>	<p><b>Flight safety - Alcohol detection assisted by AI facial recognition technology</b> Mingyi Wang, Shuzhen Luo, Chi-bok Lee, Andy Jaeyeon Jung, Joao Souza Dias Garcia, Yanbing Chen, USA</p> <p><b>Safety and human factors challenges of aircraft berths: Problem analysis and optimization approaches</b> Can Yang, Pengyu Chen, Yunusi Padun, Huimin Hu, Junmin Du, China</p> <p><b>Exploring the impact of factors on upper limb functional space and operational efficiency: A theoretical analysis</b> Pengyu Chen, Yunusi Padun, Can Yang, Huimin Hu, Junmin Du, China</p> <p><b>The implementation of AI in aviation accidents investigations</b> Gustavo Sanchez Cortes, Dimitrios Ziakkas, Debra Henneberry, USA</p> <p><b>Improving operational safety by leveraging the structured exploration of complex adaptation framework</b> Adriana Dana Schmitz, Manuel Lombardi, Antonio Licu, Riccardo Patriarca, Belgium/Italy</p> <p><b>Innovations in training air traffic control visual scanning techniques</b> Jerry Crutchfield, USA</p>	
<p>12:00-13:00 • ENJOY LUNCH AT THE RESTAURANT OF YOUR CHOICE</p>		
<p><b>91</b></p>	<p><b>Psychophysiological Computing for Skill Training of First Responders, Executive and Action Forces</b> Co-Chairs: Marie Ottilie Frenkel, Germany and Lucas Paletta, Austria</p>	<p>CCIoT</p>
<p>Tuesday, July 29 13:00-14:30 AHFE 1: GRIFFIN A</p>	<p><b>Virtual reality meets the badge: Qualitative findings on attention, decision-making, and action</b> Marie Ottilie Frenkel, Jana Strahler, Germany</p> <p><b>Innovative MedEvac decision, coordination and support system for military evacuation scenarios</b> Florian Haid, Anna Weber, Thomas Schnabel, Michael Schneeberger, Lucas Paletta, Alexander Almer, Markus Bergen, Gerald Bauer, Austria</p> <p><b>Real-time monitoring in military task simulations: insights from the RT-VitalMonitor Project</b> Florian Haid, Julia Tschuden, Michael Schneeberger, Lucas Paletta, Anna Weber, Alexander Almer, Markus Bergen, Wolfgang Rausch, Gerald Bauer, Thomas Hölzl, Austria</p> <p><b>The impact of physical strain on performance in basic shooting drills</b> Jochen A. Mosbacher, Michael Schneeberger, Lucas Paletta, Martin Pszeida, Julia Tschuden, Anna Weber, Florian Haid, Silvia Russegger, Alexander Almer, Markus Bergen, Wolfgang Rausch, Gerald Bauer, Thomas Hölzl, Austria</p> <p><b>Assessment of central nervous system fatigue in mountain rescuers following a simulated winter rescue</b> Belén Carballo-Leyenda, Pilar Sánchez-Collado, Fabio García-Heras, Jorge Gutiérrez-Arroyo, Juan Rodríguez-Medina, José A. Rodríguez-Marroyo, Spain</p> <p><b>A framework for mixed reality-supported training of conflict resolution and first responder skills in international crisis situations: SmartSkills</b> Lucas Paletta, Andreas Peer, Markus Öttl, Georg Aumayr, K. Wolfgang Kallus, Joachim Brandtner, Patrick Luley, Alexander Almer, Michael Schneeberger, Wolfgang Weiss, Anna Weber, Stefan Ladstätter, Daniela Weismeier-Sammer, Christian Schönauer, Benjamin Schuster, Martin Söllner, Martin Müller, Florian Haid, Martin Pszeida, Jochen A. Mosbacher, Sandra Draxler, Gudrun Walter, Silvia Russegger, Markus Bergen, Austria</p>	

<p><b>92</b></p>	<p><b>Cognition and Decision-Making in Complex Human-System Interactions</b> Co-Chairs: Lance Chong, Canada and John Li, China</p>	<p>CN</p>
<p>13:00-14:30 AHFE 2: GRIFFIN B</p>	<p>Locus of control as a moderator in the relationship between negative emotional states and smartphone use: A one-month tracking study John Li, Yang Chu, Yanfang Liu, Jie Xu, China</p> <p>Workplace burnout and its impact on productivity in the service sector of the city of Bogotá D. C., Colombia Emilsy Medina, Diana Londoño, Biviana Ramirez, Colombia</p> <p>The impact of “think aloud” on AI hallucination susceptibility Yuhan Tang, Yuyin Zhang, Yihang Shen, Zaifeng Gao, China</p> <p>Optimizing multimodal alarm design for attention allocation in discrete monitoring tasks Wenzhe Cun, Hao Fan, Jianjie Chu, Deng Kai Chen, China</p> <p>Toward a probability-based framework for cognitive ergonomics in future AI user interfaces Lance Chong, Canada</p> <p>A subjective and objective synchronization assessment method of cognitive load for the lunar exploration Weiquan Yang, Zengrui Li, Tian Ye, 1 1, Shanguang Chen, Qianchen Xia, China</p>	
<p><b>93</b></p>	<p><b>Panel: Perspectives on Advancing Naval Air Training via Innovative Technologies and Human Factors Methods</b> Co-Chairs: Lee Sciarini and Beth Atkinson, USA</p>	<p>CIE</p>
<p>13:00-14:30 AHFE 3: GRIFFIN C</p>	<p>Performance and physiologically-based technologies for instructional feedback Christine Beauchene, Hrishikesh Rao, USA</p> <p>Virtual Imaging of Naval Aviator Logbooks (VINAL): Enhancing training with advanced analytics and human-centered design Jeremiah Folsom-Kovarik, Joseph Cohn, USA</p> <p>Knowledge unleashed: Harnessing AI to navigate the information tsunami Brent Fegley, USA</p> <p>Perspectives on advancing naval air training via innovative technologies &amp; human factors methods Michael Curtis, Destiny Gough, Angeliqe Wetzel, USA</p> <p>Implementing a change management strategy for competency-based adaptive training in naval aviation Kerri Chik, Camilla Chavez, Beth Atkinson, USA</p> <p>Research and evaluation of competency-based performance assessment Jenna Korentsides, Joseph Keebler, Beth Atkinson, Elizabeth Merwin, Zander Miller, Sabina Patel, USA</p> <p>Competency-based model of pilot expertise Meredith Carroll, USA</p>	
<p><b>94</b></p>	<p><b>Human Error and Performance Analysis II</b> Co-Chairs: Salman Nazir, Norway and Abner Flores, USA</p>	<p>HERRP</p>
<p>13:00-14:30 AHFE 4: PINE</p>	<p>Human error as systemic insight: Socio-technical lessons from maritime and process industries Salman Nazir, Norway</p> <p>The impact of cultural background on perception and understanding in learning: A neuroscientific and psychological perspective Abner Flores, Alexander Paselk, USA</p> <p>Does military experience influence intel collection efficacy when providing chatter locations on a geographical map Justin Nelson, Justin Morgan, Timothy Heggedahl, Samuel Johnston, Jenna Cotter, USA</p> <p>Similar known and later discovered wildland fire human, psychological, and fire weather causal relationships saved lives on two separate wildfires 23 years apart Fred J. Schoeffler, USA</p> <p>Engineering a cognitive load assessment system through multimodal sensor fusion Ping Wu, Qingju Wang, Qichao Zhao, Ruiyu Zhu, Qian Zhou, Jieyun Fan, Ying Gao, Han Li, Lin Shen, Changshun Ma, Meihe Liu, Lili Guo, China</p> <p>Time distribution analysis for task primitives to support dynamic human reliability analysis Taewon Yang, Ronald Boring, Jooyoung Park, USA</p>	

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<b>95</b>	<b>Simulation Workload, Usability, Acceptance and Engagement</b> Co-Chairs: Lawrence Perkins, USA and Stefan Pickl, Germany	<b>HFSIM</b>
13:00-14:30 AHFE 5: SPRUCE	A human multi-agent teaming testbed, escape room simulation Lawrence Perkins, Matthew Johnson, Hakki Erhan Sevil, USA A neural network approach to modeling human behavior in conflict zones Maryna Zharikova, Stefan Pickl, Germany Simulation for artificial intelligence modeling and assessment Daniel Barber, Lauren Reinerman-Jones, USA Human factors challenges for extended reality aviation training simulation Stephanie Fussell, Summer Rebensky, Stephen McGee, USA	
<b>96</b>	<b>Ergonomics, Human Factors and Work Efficiency</b> Co-Chairs: Henrijs Kalkis and Zenija Roja, Latvia	<b>SOE</b>
13:00-14:30 AHFE 6: CRANE	Ergonomics and psychosocial risks relation to work performance for employees in banking sector Henrijs Kalkis, Zenija Roja, Svetlana Kocerova, Latvia Interaction of physical and mental strain for surgeons and nurses in operating theater in Latvia Zenija Roja, Henrijs Kalkis, Marwan Babiker, Latvia The impacts of self-esteem and subjective well-being on job satisfaction and performance Noriko Okabe, Japan Adapting ergonomics and human factors in remote work for employee well-being: A conceptual study Charles Hanu, Michael D. Dzandu, Hayford Amegbe, Buddhi Pathak, Morocco Preliminary findings on the relationship between noise exposure and sleep quality in DJs Rodrigo Dominguez, Miguel Tapia, Fernando Tapia, Sebastian Pino, Alex Rojas, Carlos Gomez, Anghela Cieza, Sofia Murillo, Chile WRMSDs and vision disorders in office workers using digital devices Zenija Roja, Henrijs Kalkis, Jevgenijs Viznuks, Tatjana Pladere, Aiga Svede, Linda Krauze, Latvia	
<b>97</b>	<b>Occupational Risk Management and Work-Related Injuries</b> Co-Chairs: Uwe Reischl, USA and Christopher Pratt, France	<b>SMHF</b>
13:00-14:30 AHFE 7: EGRET	Resilience and decision-making in high-risk dynamic situations: The example of solo round-the-world offshore racing Mael L Helgoualch, Gael Morel, Christine Chauvin, Christopher Pratt, France Wildland firefighter helmet air-supply system for reducing smoke exposure and heat stress Uwe Reischl, Budimir Mijović, Alex Honn, USA/Bosnia and Herzegovina Development of modern prototype water filling plant with low cost automation production system for small and micro community enterprise Nanthawan Am Eam, Thailand Vocal markers in aviation of workload, stress, fatigue, and sleepiness: A protocol validation study Martina Gnerre, Federica Biassoni, Italy	
<b>98</b>	<b>Design for Sustainability and Experience in Urban Planning II</b> Co-Chairs: Amon Onodera, Japan and Michela Balconi, Italy	<b>SUPI</b>
13:00-14:30 AHFE 8: IBIS	The influence of geometric properties of spandrel wall on the perception of spatial depth Amon Onodera, Yohsuke Yoshioka, Japan Spaces that enhance user well-being Selene Margarita Vazquez Soto, Miguel Angel Cruz Domínguez Hernández, Jessica Garcia, Mexico Neural correlates of architectural interior preferences and single-trial preference prediction Yuhong Chen, Qixu Xie, Li Zhang, China Designing for the mind: The impact of university environments on stress, well-being, and neurophysiological responses in students Michela Balconi, Katia Rovelli, Italy Inclusive design strategies based on a human factors perspective: integrating urban color in the regional cultural diversity of multi-ethnic cities Chen Li, Nan Li, Xiaoyu Xiao, China Urban-rural synergy pathways: Exploring human-factor in multifunctional utilization of urban farmland based on rural push-pull theory Yan Zhan, Yin Han, Zhongguo Xu, China	

REFRESHMENTS: 14:30-15:00 • FOYER		
<b>100</b>	<p><b>Design and Technology Innovation</b> Co-Chairs: Huanhuan Li and Furqan Ali Shah, Hong Kong SAR China</p>	<b>CIE</b>
<p>15:00-16:30 AHFE 1: GRIFFIN A</p>	<p><b>Dynamic facial dimensions in design of respirator: A pilot study</b> Huanhuan Li, Yuqian Wang, Yan Luximon, Hong Kong SAR China</p> <p><b>Exploring the effects of virtual windows on emotional well-being in older adults: A systematic review</b> Furqan Ali Shah, Anthony Kong, Yan Luximon, Hong Kong SAR China</p> <p><b>Playful learning through toy design: Innovating pedagogy for entrepreneurial learning</b> Katriina Heljakka, Marjaana Kangas, Kati Suomi, Jesper Falck Legaard, Finland</p> <p><b>Digital management strategies and technological innovation in automotive advanced surface design</b> Tianbao Cui, Bengang Yi, Minglong Peng, Keyi Zhou, Zhuyu Wang, Xiaoke Zhang, China</p> <p><b>A comparative study on the impact of AIGC and traditional inspiration sources on the design process of designers</b> Yulu Yang, Ruoxuan Ma, Yi Xiao, China</p> <p><b>Citizen frugal innovation: Insights from international open innovation challenges with underrepresented groups of society</b> Liza Wohlfart, Germany</p>	
<b>101</b>	<p><b>Human Computer Interaction: User Experience and User Interface</b> Co-Chairs: Wenqian Zhu and Yiwei Xie, China</p>	<b>HCI</b>
<p>15:00-16:30 AHFE 2: GRIFFIN B</p>	<p><b>Traffic sign visual recognition based on full-reference image quality assessment algorithms</b> Duan Wu, Jingwen Tian, Renzhou Gui, Meng Wang, Yuhong Ma, Zhixuan Sun, Ruiyue Tang, Yaqi Wang, Jiawei Bi, Peng Gao, China</p> <p><b>Graphical highlighting study in train driving interface</b> Wenqian Zhu, Jianrun Zhang, China</p> <p><b>The impact of color combinations on recognition efficiency and visual fatigue in industrial alarm systems</b> Yiwei Xie, Xiaojun Liu, China</p> <p><b>Human and machine as seen at the Co-Creation Age: A co-word analysis in human machine co-creation (2014–2024)</b> Mengyao Guo, Jinda Han, Ze Gao, Yuan Zhuang, Xingting Wu, China</p>	
<b>102</b>	<p><b>Technology and Design for the Aging Population</b> Co-Chairs: Haoyue Lei and Jiaan Li, China</p>	<b>HFAS</b>
<p>15:00-16:30 AHFE 3: GRIFFIN C</p>	<p><b>Requirements for a wheelchair project</b> Carla Amodio, Ariel Oyama, Marina Ishida, Joyce Baptista, Ligia Franzoci, Kazuo Hatakeyama, Brazil</p> <p><b>Evolving the narrative utilization ecosystem with life story interpretation and generative AI tools</b> Masayuki Ihara, Hiroko Tokunaga, Tomomi Nakashima, Hiroki Goto, Yuuki Umezaki, Yoko Egawa, Shinya Hisano, Takashi Minato, Yutaka Nakamura, Shinpei Saruwatari, Japan</p> <p><b>Innovative design of intelligent commuting vehicles for elderly users</b> Xin Chen, Xuan Li, China</p> <p><b>Integrated medical and elderly care in Shanghai: A case analysis of resource distribution and the Five-Bed Linkage Model in Jing'an District</b> Haoyue Lei, Shuxiao Zhong, Duan Wu, China</p> <p><b>The evolution of research on robotic technology for older adults: A bibliometric analysis</b> Jiaan Li, Hailiang Wang, Hong Kong SAR China</p>	

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<p><b>103</b></p>	<p><b>Automated and Autonomous Driving</b> Co-Chairs: Yang Liu, France and Shuming Zhang, China</p>	<p>RR</p>
<p>15:00-16:30 AHFE 4: PINE</p>	<p><b>The interior design of research demonstrators for modular and urban last mile applications</b> Sebastian Scheibe, Fabian Schmid, Marco Münster, Manuel Osebek, Gerhard Kopp, Tjark Siefkes, Germany</p> <p><b>Accessibility of shared automated vehicles for the visually impaired travelers</b> Pei Wang, USA</p> <p><b>Effects of transparency and message framing on drivers' subjective perceptions and behaviors during takeover requests: An information design-based perspective</b> Shuming Zhang, Yu Peng, Chunxi Huang, Tan Hao, China</p> <p><b>Design and development of a tactile takeover warning system using a tactile seat for automated driving</b> Jinlei Shi, Wei Zhang, Hao Fan, Chunlei Chai, China</p> <p><b>Assessing cognitive workload and driver performance: A comparative study of pneumatic and vibrotactile haptic alerts for takeover requests in autonomous vehicles</b> Yang Liu, Zhegong Shangguan, Françoise Détienne, Stéphane Safin, Eric Lecolinet, France</p> <p><b>Decision support system to guide use-centric cooperative, connected and automated mobility deployments: The SINFONICA Knowledge Map Explorer</b> Anna Antonakopoulou, Konstantinos Fokeas, Evangelos Tsougiannis, Maria Krikochoriti, Angelos Amditis, Greece</p> <p><b>The interaction effects of autonomous vehicle deceleration style and EHMI presence on pedestrian crossing intentions</b> Shuwen Tian, Peiwen Luo, Zhengyu Tan, China</p>	
<p><b>104</b></p>	<p><b>Innovations in Sustainable Industry I</b> Co-Chairs: Ronghan Wang, Portugal and Olumide Ayanrinde, South Africa</p>	<p>SBE</p>
<p>15:00-16:30 AHFE 5: SPRUCE</p>	<p><b>Effective use of fly ash as a binder in concrete pavement: A case study of U. A. E. airport</b> Noor Habib, Orwa Khalaf, Yasemin Nielsen, Ashraf Al Ashram, UAE</p> <p><b>Feasibility and conceptual design of portable nanofiber membrane water purification tablets</b> Ronghan Wang, Wenjing Li, Dehe Yao, Portugal/China</p> <p><b>Innovative pathways to sustainable housing in Nigeria: Decarbonization, human factors, and institutional transformation</b> Olumide Ayanrinde, Jeffrey Mahachi, South Africa</p> <p><b>Advancing construction innovation: Bibliometric insights into large language models in the construction industry</b> Nana Akua Gyadu-Ssiedu, Clinton Aigbavboa, Simon Ofori Ametepey, John Aliu, South Africa</p> <p><b>The Impacts on Construction Subcontractors in South Africa</b> Gloria Akanyawie Awnyetemy, Clinton Aigbavboa, Nana Akua Gyadu-Ssiedu, Onesimo Momoza, South Africa</p> <p><b>Integrating 'designing for construction health, safety, and ergonomics' into architectural education and training in South Africa</b> Craig Goldswain, John Smallwood, South Africa</p>	
<p><b>105</b></p>	<p><b>Skill Learning and Performance Assessment</b> Co-Chairs: Nathan Sonnenfeld, USA and Natalia Andreassen, Norway</p>	<p>TELS</p>
<p>15:00-16:30 AHFE 6: CRANE</p>	<p><b>Crafting recall: Impacts of narrative on semantic vs. episodic memory &amp; perceptions for an aviation procedure</b> Nathan Sonnenfeld, Alexis Sanchez, Nelly Dragu, Sierra Outerbridge, Blake Nguyen, Stephen Fiore, Florian Jentsch, USA</p> <p><b>Collaborative risk assessment in the arctic: Lessons from the ATOMEX Tabletop Exercise and INCLUS Assessment Tool</b> Rune Elvegard, Natalia Andreassen, Emmi Ikonen, Minna Markkanen, Matti Kropsu, Norway</p> <p><b>Mobile Vision for Algal Bloom Probe</b> Yang Cai, Shuheng Cao, Kevin Do, William C. Holland, Kaytee Pokrzywinski, Richard Stumpf, USA</p> <p><b>Rethinking assessment: The body as a compass for understanding</b> Rafael De Pinho Andre, Almir Fonseca, Almir Mirabeau, Brazil</p>	



<b>106</b>	<b>Design Evaluation and User Perspective</b> Co-Chairs: Yihan Hu and Xin Huang, China	<b>UUE</b>
15:00-16:30 AHFE 7: EGRET	<p><b>Understanding family-oriented vehicle needs: insights from two-child families with older adults in China</b> Yancong Zhu, Mengxin Hao, Zhongkai He, Yihan Hu, Caoxi Peng, Keyi Yan, Xiaonan Zhang, Lu Wang, Wei Liu, China</p> <p><b>Developing an AI user interface for people with special needs – user needs in the context of municipality information</b> Marie Sjölander, Jonas Ek, Pär Hansson, Carina Norman, Berit Nor, Johan Twedberg, Sweden</p> <p><b>Diversity analysis of smart home user interface design</b> Lu Lu, Chien-Hsiung Chen, Taiwan</p> <p><b>Optimised human-computer interaction for intelligent business seats in high-speed trains</b> Xin Huang, Jianrun Zhang, China</p> <p><b>Between indoor and outdoor: Design for three user types of outdoor kitchens</b> Peiyue Lin, China</p>	
<b>107</b>	<b>Multidisciplinary Perspectives on AI-Enabled Human-Robot and Systems Interaction in Manufacturing</b> Co-Chairs: Iveta Eimontaite, UK and Jianqiang Liu, China	<b>MFG</b>
15:00-16:30 AHFE 8: IBIS	<p><b>Multidisciplinary perspectives on ethical AI-enabled human-robot interaction in manufacturing</b> Maryam Bathaei Javareshk, Iveta Eimontaite, Sarah Fletcher, Maryam Bathaeijavareshk, UK/Greece</p> <p><b>Exploring operator requirements for human-robot collaboration in a composite lay-up process</b> Jingyi Zhang, Maryam Bathaeijavareshk, Sarah Fletcher, UK</p> <p><b>End-user engagement in developing virtual reality training systems for Industry 5.0</b> Vaishnavi Sashidharan, Sarah Fletcher, Diego Sagasti Mota, Eduardo Ibañez, Nikos Dimitropoulos, Ilias Tompoulidis, UK/Greece</p> <p><b>Enhancing E-commerce efficiency: AI solutions for last-mile delivery in Johannesburg</b> Matanda Alan Tshinkobo, John Ikome, Ibrahim Idowu, South Africa</p> <p><b>Construction method of complex product repair model for process execution end</b> Jianqiang Liu, Xiaojun Liu, China</p>	

<b>109</b>	<b>Enhancing Accessibility through Technology</b> Co-Chairs: Rachel Knox, USA and Zhengyang Wang, China	<b>AATDE</b>
8:30-10:00 AHFE 1: GRIFFIN A	<p><b>Analyzing the development and application of digital twins in manufacturing industries based on digital twin maturity model</b> Jihoon Shin, Jungwoo Shin, Hongbum Kim, China</p> <p><b>Towards vehicle content accessibility guideline</b> Sookyung Cho, USA</p> <p><b>Optimizing keyboard accessibility: effects of raised character size on touch-typing performance</b> Mengshi Yang, Zhengyang Wang, Xuemiao Teng, Jingmin Wu, Hongtao Zhou, China</p> <p><b>BriteTrack: Illuminating pathways for task management and autonomy in children with ASD</b> Carlos Aguiar, Rachel Knox, Deekshitha Paruchuri, Catherine Milani, Dale Sink, USA</p> <p><b>The design of counselling and wellness spaces on university campuses</b> Annalisa Di Roma, Giulia Annalinda Neglia, Italy</p>	

<b>110</b>	<p><b>Panel: Generative AI Risks and Benefits within Human-Machine Teams I</b>                  Co-Chairs: William Lawless, USA and Ted Goranson, Australia</p>	<b>AISC</b>
<p>8:30-10:00                  AHFE 2: GRIFFIN B</p>	<p><b>Physics based metaphors for conveying influence</b>                  Ted Goranson, Beth Cardier, John Shull, Mathew Hancock, Australia  <b>Web-based human-centered explainability of NLP tasks with Rationale Mapping Theory</b>                  Andrea Tocchetti, Valentina Naldi, Marco Brambilla, Italy  <b>Interdependence exposes the limits of classical team science</b>                  William Lawless, USA  <b>AGI and AI assistants: Do we want conscious AI assistants?</b>                  Barclay Brown, USA  <b>Humans and AI based communication and reasoning in complex adversarial domains</b>                  James Llinas, USA</p>	
<b>111</b>	<p><b>Dialog Engineering in Business Leadership and Management</b>                  Co-Chairs: Oliver Tian, Singapore and Tero Reunanen, Finland</p>	<b>HFBMS</b>
<p>8:30-10:00                  AHFE 3: GRIFFIN C</p>	<p><b>Leveraging AI technologies to augment and advance human expertise with JIT learning</b>                  Oliver Tian, Vesa Salminen, Bryon Tian, Singapore  <b>Clusters and factors influencing student satisfaction among graduates of Turku University of Applied Sciences</b>                  Tero Reunanen, Vesa Taatila, Finland  <b>Combining AI tools, low-code platforms, and product development in ICT education: A reflective study on educational and practical outcomes</b>                  Noora Nieminen, Tero Reunanen, Finland  <b>Sociotechnical leadership for the digital transformation of global corporations</b>                  Faisal Imran, Aurangzeab Butt, Finland  <b>Embracing new cultures in the pressure of new technology</b>                  Heikki Ruohomaa, Vesa Salminen, Heidi Ahokallio-Leppala, Finland  <b>Bridging technology and academia: A qualitative exploration of GENAI integration in GCC higher education</b>                  Federica Polo, Vishal Rana, Kousay Abid, Daraneekorn Supanti, Qatar</p>	
<b>112</b>	<p><b>Interaction with Emerging Technologies, Design and Evaluation</b>                  Co-Chairs: Hanlu Zhu, China and Yang Zhao, Italy</p>	<b>HDCS</b>
<p>8:30-10:00                  AHFE 4: PINE</p>	<p><b>Urban colour palettes and emotional responses</b>                  Amic Ho, Hong Kong SAR China  <b>Lean development of a mobile application for Advergaming</b>                  Wirachai Ausombun, Nonthaporn Phrommet, Sirilak Jittrisin, Orawee Pirugjanyakun, Nattawud Trangkanon, Thitirat Siriborvornratanakul, Thailand  <b>AI-driven social dialogue and systemic change: How designers use technology to foster sustainable social innovation</b>                  Mingyu Li, Jingwen Tian, China  <b>Digital humanities design in an interdisciplinary context: A visualized analysis based on CiteSpace</b>                  Hanlu Zhu, China  <b>Relational vulnerability as a design entry point: Activating community connections through micro-prototypes</b>                  Yang Zhao, Italy</p>	

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<b>113</b>	<p><b>Human Teaming and Interaction in Autonomous Systems</b>                  Co-Chairs: Sebastian Pimminger, Austria and Nooshin Atashfeshan, Germany</p>	<b>HFRDUS</b>
<p>8:30-10:00                  AHFE 5: SPRUCE</p>	<p>Enhancing trust in human-AI interaction through explainable decision support systems for mission planning of UAS-swarms                  Batuhan Özcan, Max Friedrich, Jan- Paul Huttner, Germany</p> <p>Designing multimodal human-robot interaction for social robots in office environments                  Sebastian Pimminger, Werner Kurschl, Johannes Schönböck, Gerald Zwettler, Austria</p> <p>Automated vehicles with communication capabilities: Is there an added impact on traffic efficiency at yield sign-controlled intersections?                  Niki Georgiou, Evangelia Portouli, Angelos Amditis, Greece</p> <p>Shared design principles in human-robot systems: A work domain perspective                  Nooshin Atashfeshan, Felix Dreger, Yannick Metzler, Fabian Rösler, Georgios Karantinakis, Georgios Athanassiou, Germany</p> <p>Integrating robotics, AI, and immersive technologies: A modular framework for human-metahuman-robot collaboration                  Ramisha Fariha Baki, Apostolos Kalatzis, Laura Stanley, USA</p> <p>Identifying the contributors of intrinsic, extraneous, and germane load in human-robot collaboration through interview questions                  Apostolos Kalatzis, Vishnunarayan Girishan Prabhu, Laura Stanley, USA</p>	
<b>114</b>	<p><b>Design Strategy and User Interface Design</b>                  Co-Chairs: Xinyi Jing and Simin Peng, China</p>	<b>UUE</b>
<p>8:30-10:00                  AHFE 6: CRANE</p>	<p>User experience design for new energy vehicles from the perspective of the Kano model                  Jia Xiang Huang, China</p> <p>User preferences in Chinese E-commerce interface design: A semantic differential approach                  Chen Shiyu, Yixiang Huang, Hengsheng Huang, China</p> <p>User information behavior from the perspective of information context:                  Optimizing user experience within text-to-image AIGC platforms                  Xinyi Jing, Lu Zhang, China</p> <p>User preferences for information feedback design of a multi-person collaborative system interface for emergency rescue tasks                  Simin Peng, Yuxuan Yang, Chengqi Xue, China</p> <p>Optimizing e-Train ticket interface layout using HTA and link analysis                  Yongsheng Tan, Yu Hsiu Hung, China</p> <p>Design principles for cookie banners: Balancing legal compliance and usability                  Maria Rigou, Niki Georgiadou, Greece</p>	
<b>115</b>	<p><b>Interdisciplinary Approach to Design Process</b>                  Co-Chairs: Matt Ying and Braden Trauth, USA</p>	<b>IPID</b>
<p>8:30-10:00                  AHFE 7: EGRET</p>	<p>Establishing a reward mechanism based on Quality Function Deployment in sustainable consumer service design                  Shuo-fang Liu, Yi Qing Ding, Taiwan</p> <p>Finding an ethical balance between humans and the planet for design: An examination of sustainability ethics and their history in design and business                  Braden Trauth, USA</p> <p>Parametric design for exhibition displays: Innovations in form and function                  Junyang Hou, Xue Chen, China</p> <p>Sustainable innovation and practice of kitchen electrical products under the green concept                  Ma Xin, Liang Wengan, He Peipei, China</p> <p>From scan to prototype: Mapping and optimizing workflows for personalized, ergonomic product development                  Carlos Aguiar, Owen Harry, Matt Ying, USA</p>	

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<b>116</b>	<p><b>New Approaches, Tools, and Technology in Design Education Through Practice II</b> Co-Chairs: Joyce Thomas, USA and Megan Strickfaden, Canada</p>	<b>IPID</b>
8:30-10:00 AHFE 8: IBIS	<p>Types of interaction-based information conveyed through LED-based robot expressions Jounghyun Kim, Kwanmyung Kim, South Korea</p> <p>Define, design, repeat, refine Joyce Thomas, Megan Strickfaden, USA</p> <p>Artifacts, artificions: Material narratives in design Marguerite Dreyer, USA</p> <p>Taskscape analysis: Provoking depth in product development Megan Strickfaden, Joyce Thomas, Sandra Tullio-pow, USA/Canada</p> <p>Enhancing co-creation and collaboration in design education: A framework for participatory pedagogies and group learning Naureen Mumtaz, Canada</p>	
REFRESHMENTS: 10:00-10:30 • FOYER		
<b>118</b>	<p><b>Human Computer Interaction Applications: Efficiency and Performance II</b> Co-Chairs: Matteo Zallio, UK and Xingchen Zhou, China</p>	<b>HCI</b>
10:30-12:00 AHFE 1: GRIFFIN A	<p>The impact of secondary task's perceived value on individuals' creativity in divergent thinking tasks Yunxuan Xing, Zhuoyi Sha, Junhui Lin, Xingchen Zhou, China</p> <p>Unpacking the invisible: Human factors in a data-driven world Tarika Kumar, Matteo Zallio, UK</p> <p>Interaction design for AI interfaces and robots incorporating motion Akihiro Maehigashi, Seiji Yamada, Japan</p> <p>Using the Analytic Hierarchy Process (AHP) to prioritize augmented reality (AR) device considerations Mohammad Jeelani, Michael Prieto, USA</p> <p>Constructing hybrid-driven agents for MOBA through Player Modeling: Integrating behavioral analysis and narrative persona in human-centered AI Chenxi Yan, Yuntian Zhang, China</p> <p>LLM asks, you write: Enhancing human-AI collaborative writing experience through flipped interaction Mingwei Chen, Pei-Luen Patrick Rau, Liang Ma, China</p>	
<b>119</b>	<p><b>Cognitive Decision Support and Trustworthy AI</b> Co-Chairs: Lucas Paletta, Austria and Gustavo Viera, Portugal</p>	<b>CCIoT</b>
10:30-12:00 AHFE 2: GRIFFIN B	<p>Research protocol for the estimation of recovery-stress states of workers at the manufacturing site using wearables Lucas Paletta, Michael Schneeberger, Martin Pszeida, Herwig Zeiner, Jochen A Mosbacher, Austria</p> <p>AI-driven team matching using a novel personality profile, affinity score and fairness measures Michael Schneeberger, Fredrik Gustaffson, Georg Lindner Turecka, Wolfgang Weiss, Martin Pszeida, Thomas Orgel, Jochen A Mosbacher, Silvia Russegger, Lucas Paletta, Gerhard Handler, Cindy Luisser Haller, Austria</p> <p>CogDriver: The longest-running autonomous driving cognitive model exhibits human factors Christian Wasta, Frank Ritter, Siyu Wu, USA</p> <p>AI audit as a tool for effective ai risk management Herwig Zeiner, Austria</p> <p>Fairness in designing decision-making processes with multi-agent systems and human factors Gustavo Vieira, Herwig Zeiner, Lucas Paletta, Rui Fernandes, Higor Rosse, Khadija Sabiri, Juan F De Paz, José Barbosa, Portugal</p> <p>The algorithmic fairness challenge in decision-making Herwig Zeiner, Gustavo Vieira, Austria</p>	

<b>120</b>	<b>Immersion and Psychological Responses in Virtual Environments</b> Co-Chairs: Marilia Karla Soares Lopes and Marc Antoine Moynereau, Canada	<b>HFGD</b>
10:30-12:00 AHFE 3: GRIFFIN C	<p><b>Mitigating VR motion sickness in visual sharing based on observer-observed coupled movements</b>                  Langsong Sun, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Japan</p> <p><b>Eye-tracking based mental fatigue assessment in VR environments</b>                  Anna Shimafuji, Fuma Hayashi, Tetsusei Kurashiki, Japan</p> <p><b>Changes in heart rate variability during immersive multisensory forest bathing experiences</b>                  Marilia Karla Soares Lopes, Belmir Jose De Jesus Junior, Olivier Rosanne, Susanna Pardini, Lora Appel, Christopher Smith, Tiago Henrique Falk, Canada</p> <p><b>Subjective and objective assessment of the impact of stress and mental workload on cybersickness during virtual reality training</b>                  Marc Antoine Moynereau, Abhishek Tiwari, Danielle Benesch, Nicole Bolt, Gregory P. Krätzig, Simon Paré, Tiago Henrique Falk, Canada</p> <p><b>Immersive philosophical thought experiments through virtual reality</b>                  Gordon Carlson, Samuel Byer, USA</p> <p><b>Impact of EEG-based virtual reality haptic force feedback on user experience</b>                  Zhang Ping, Wenjing Ma, Feiyang Li, Zhenhua Yu, China</p> <p><b>Construction of a VR multimodal dataset for stress recognition</b>                  Qichao Zhao, Jianming Yang, Qingju Wang, Ying Gao, Bing Zhang, Qian Zhou, Ping Wu, Han Li, China</p>	
<b>121</b>	<b>Human-Centered Ergonomics: Wearable Technologies and Virtual Reality</b> Co-Chairs: Yuyue Fang, Singapore and Stefano Pastorelli, Italy	<b>HFWT</b>
10:30-12:00 AHFE 4: PINE	<p><b>Digital healing gardens and metaverse for wellness</b>                  Giulia Annalinda Neglia, Annalisa Di Roma, Italy</p> <p><b>Improvement of safety in collaborative robotics through prompt detection of abrupt movements</b>                  Greta Di Vincenzo, Michele Polito, Elisa Digo, Laura Gastaldi, Stefano Pastorelli, Italy</p> <p><b>Improving human's spatial information perception in virtual reality through distributed haptic stimulation</b>                  Yu Zhou, China</p> <p><b>The effect of pressure levels on comfort in ankle wearable devices: A human-centered ergonomics approach</b>                  Yuhe Wei, Yuanyuan Liu, China</p> <p><b>Exploring the potential of note-taking in mixed reality as applied to field-based learning</b>                  Kenneth Y. T. Lim, Yuyue Fang, Aaron J. C. Liang, Bryan Z. W. Kuok, Singapore</p>	
<b>122</b>	<b>Cognitive and Design Challenges for Future Maritime and Transportation Operations</b> Co-Chairs: Gesa Praetorius and Karl Johan Klang, Sweden	<b>MAR</b>
10:30-12:00 AHFE 5: SPRUCE	<p><b>From ship to shore: Understanding cognitive challenges in remote pilotage operations</b>                  Amit Sharma, Gesa Praetorius, Reto Weber, Scott N. MacKinnon, Bjørn Sætrevik, Norway</p> <p><b>The Remote Support Centre – An exploration of technical support and coordination for marine archipelago traffic</b>                  Karl Johan Klang, Rickard Lindkvist, Jörgen Karlsson, Thomas Elwinger, Carl Westin, Jonas Lundberg, Sweden</p> <p><b>Evaluation of a digital assistant concept for vessel traffic service operators</b>                  Gesa Praetorius, Jonas Lundberg, Karl Johan Klang, Anders Johannesson, Gustaf Söderholm, Magnus Bang, Sweden</p> <p><b>Method for analyzing decision-making and adaptation strategies in extreme dynamic situations: The case of offshore racing</b>                  Maël L'Helgoualch, Gael Norel, Christine Chauvin, Christopher Pratt, France</p> <p><b>Customized maritime education and training path (C-path) for aspiring and current ship navigators</b>                  Tae-eun Kim, Gesa Praetorius, Norway</p> <p><b>Digital assistant concept for enroute air traffic management</b>                  Jonas Lundberg, Karl Johan Klang, Gustaf Söderholm, Karljohan Lundin Palmerius, Gustaf Fylkner, Björn Stavås, Magnus Bang, Sweden</p> <p><b>Visual scanning strategies of maritime pilots during navigation</b>                  Jukka Häkkinen, Iiro Törmä, Jedi Seppänen, Lukas Ob De Beke, Mirva Salokorpi, Finland</p>	

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<b>123</b>	<b>Physical Ergonomics Evaluation II</b> Co-Chairs: Kazuo Hatakeyama, Brazil and Mark Heidebrecht, USA	<b>PEHF</b>
10:30-12:00 AHFE 6: CRANE	<p><b>Ergonomic analysis of drilling hammers in granite mining</b>                  Thalmo Coelho, Antonio Xavier, Norma Pinto, Kazuo Hatakeyama, Brazil</p> <p><b>Advancing research on workers' fatigue in construction: A cluster-based review</b>                  Rezaul Karim, Xingzhou Guo, Hongyue Wu, Manik Barman, USA</p> <p><b>Epidemiology-based risk quantification: Transitioning from the 80's and 90's ergonomic analysis tools</b>                  Mark Heidebrecht, USA</p> <p><b>Standing balance after whole-body vibration exposure: Differences between tiptoeing and flat-foot standing</b>                  Junya Tatsuno, Setsuo Maeda, Japan</p> <p><b>Identification and empirical investigation of movement strategies for workstation design</b>                  Stefan Pfeffer, Laura Lange, Katharina Gleichauf, Germany</p> <p><b>Influence of workstation design on intra-rater reliability in sculpting kneading task assessments</b>                  Patricia Eugenia Sortillon González, Aide Aracely Maldonado Macias, David Saenz Zamarrón, Juan Luis Hernández Arellano, Enrique Javier De La Vega Bustillos, Mexico</p>	
<b>124</b>	<b>Workspace Design and Safety</b> Co-Chairs: Vesna Brkić, Serbia and Mohammed Aminu Sanda, Ghana	<b>YSYI</b>
10:30-12:00 AHFE 7: EGRET	<p><b>Determinants of quality coping and knowledge acquisition in professional work and academic study systemic interaction</b>                  Mohammed Aminu Sanda, Ghana</p> <p><b>ErgoTalks unplugged: Digital discourses and ergonomic practices among remote knowledge workers</b>                  Sunday Adewale Olaleye, Esther Olubunmi Olaleye, Finland</p> <p><b>Evaluation of human movement smoothness and influence of signal processing techniques</b>                  Elena Caselli, Sandra Pieraccini, Stefano Pastorelli, Laura Gastaldi, Italy</p> <p><b>Quality tools application in examining discomfort issues at mining machinery operators' workplaces</b>                  Vesna Spasojević Brkić, Martina Perišić, Nemanja Janev, Aleksandar Brkić, Serbia</p> <p><b>An assessment of the benefits of circular economy principles for sustainable construction practices in South Africa</b>                  Emmanuel Ayorinde, Matlou Pheladi, Ntebo Ngcobo, South Africa</p> <p><b>Toward a unified framework for multimodal cognitive workload assessment in human-machine interaction systems</b>                  Azeez Adamolekun, Clement Alabi, Francis Logah, Younho Seong, Sun Yi, USA</p>	
<b>125</b>	<b>Panel: Generative AI Risks and Benefits within Human-Machine Teams II</b> Co-Chairs: William Lawless and Michael Wollowski, USA	<b>AISC</b>
10:30-12:00 AHFE 8: IBIS	<p><b>AI considered a different kind of intelligence</b>                  Michael Wollowski, USA</p> <p><b>Regression model error analysis in the context of human-AI collaboration</b>                  Mito Akiyoshi, Japan</p> <p><b>Assessment of the capabilities of multimodal large language models in locating and resolving ambiguities during human-robot teaming</b>                  William Valentine, Michael Wollowski, USA</p> <p><b>Ethical intervention by human-machine teams: Prescriptions for acting upon inference-enriched physical-social scene graphs</b>                  Ariel Greenberg, USA</p> <p><b>Beyond explicit instruction: Enhancing human-AI collaboration with implicit user feedback</b>                  Jaelle Scheuerman, Shannon McGarry, Ciara Sibley, Noelle Brown, USA</p>	
12:00-13:00 • ENJOY LUNCH AT THE RESTAURANT OF YOUR CHOICE		

<p><b>127</b></p>	<p><b>Innovative and Multidisciplinary Approaches to Human Factors and Operations Management</b> Chair: Chanda Sanders, USA</p>	<p>CIE</p>
<p>13:00-14:30 AHFE 1: GRIFFIN A</p>	<p>Integration of artificial intelligence and machine learning in FAA systems: Human factors and considerations Philip Smith, USA</p> <p>Educating for innovation: Using problem-based collaborative tasks and Belbin’s team roles to enhance the development of student enterprise skills Mark Turner, UK</p> <p>Developing a novel framework for the design of alarms, alerts, and warnings in air traffic control: Linking expertise in two domains Keith Ruskin, USA</p> <p>Application of the travelling salesman problem in optimizing logistic routes Irfan Yousuf, Izza Anwer, Hassan Ali, Pakistan</p> <p>Lessons learned from a mixed-methods approach to civil aviation head-worn display simulation research David Newton, USA</p> <p>Designing new technologies in an industrial workplace: What role do workers and their current and future work play in the design process? Claudia Pereira, Daniel Silva, Paula Lopes, Mariana Magalhães, Marta Santos, Portugal</p>	
<p><b>128</b></p>	<p><b>Applied Next-Generation Concepts in Human-Centered Design and Security II</b> Co-Chairs: Jumpei Tahara, Japan and Rahmira Rufus, USA</p>	<p>CYBER</p>
<p>13:00-14:30 AHFE 2: GRIFFIN B</p>	<p>Analysis of large language and instance-based learning models in mimicking human cyber-attack strategies in HACKIT simulator Shubham Sharma, Shubham Thakur, Megha Sharma, Ranik Goyal, Shashank Uttrani, Harsh Katakwar, Kuldeep Singh, Palvi Aggarwal, Varun Dutt, India</p> <p>Resolving conflicts between PSIRT and safety teams: A collaborative approach Jumpei Tahara, Kenji Watanabe, Ichiro Koshijima, Ryushun Oka, Japan</p> <p>Next generation business continuity management solution Markus Sihvonen, Finland</p> <p>Assessing and communicating software security: Enhancing software product health with architectural threat analysis Jan-Niclas Strüwer, Roman Trentinaglia, Benedict Wohlers, Roman Dumitrescu, Eric Bodden, Germany</p>	
<p><b>129</b></p>	<p><b>Ergonomics in Product and Environment Design</b> Co-Chairs: Yueqing Li, USA and Léa Corsini, Canada</p>	<p>ED</p>
<p>13:00-14:30 AHFE 3: GRIFFIN C</p>	<p>Simulations for optimizing bulletproof vest design with MOLLE system for police: A user-centered approach to assess vest suitability Léa Corsini, Steve Vezeau, Canada</p> <p>Effects of mouse back shape on grip comfort: An ergonomic study Yilu Li, Haining Wang, China</p> <p>Integrative bicycle helmet fit William Makowski, Thomas Martin, W. Andy Schaudt, USA</p> <p>Development of functional textiles through micro-encapsulation Emilia Visileanu, Alexandra Gabriele Ene, Roxana Constantinescu, Viviana Roman, Alina Vladu, Felicia Dondea, Romania</p> <p>Participatory ergonomics in designing working environments for persons with cognitive disabilities: A pilot study on sheltered workshops in Hong Kong Kin Wai Michael Siu, Qian Jiang, Hong Kong SAR China</p> <p>Automated anthropometric analysis for personalized workspace optimisation Nidhi Singh, Nihaal Kuchangi, Neha Vemireddy, Navya Govil, Surabhi Narayan, India</p> <p>MIX: An image generation system using image prompts for industrial design Longfei Zhou, Wenxi Sun, Yuxin Ding, Xinda Chen, Luohe Ni, China</p>	

<b>130</b>	<b>Innovating Safety and Usability in Healthcare Devices</b> Co-Chairs: Eiichiro Tanaka, Japan and Rajaram Bhagavathula, USA	<b>EHMD</b>
13:00-14:30 AHFE 4: PINE	<p><b>Socio-technical risk analysis for the digitalized transfusion process: The e-TRAST tool</b> Chiara Fasanotto, Annalisa Corradi, Rossella Onofrio, Paolo Trucco, Italy</p> <p><b>Intravitreal injection force measurement study</b> Rajaram Bhagavathula, Young Chun, USA</p> <p><b>Wearable sit-to-stand-up (STS) guiding device using asymmetric vibration speaker</b> Shenghao Yin, Jun Zhou, Keisuke Osawa, Kei Nakagawa, Eiichiro Tanaka, Japan</p> <p><b>Task analysis and usability study of infantometers used in neonatology units</b> Begoña Julia Nehme, Valeria De Toro, Joaquin Torres, Chile</p> <p><b>Enhancing motor performance in pediatric cerebral palsy: A preliminary study on soft knee robotic</b> Dezhi Liang, Shuk Fan Tong, Joanne Yip, Darryl Chiu, Alistair Mcewan, Kai-yu Tong, Hong Kong SAR China</p>	
<b>131</b>	<b>Digital Environments, Metaverse and Immersive Experience</b> Co-Chairs: Dovile Valantiejene, Lithuania and Pengyu Liu, China	<b>HFGD</b>
13:00-14:30 AHFE 5: SPRUCE	<p><b>Change in affective dynamics and cognitive state with time during multiplayer FPS games</b> Salman Md Khan, Swati Pal, India</p> <p><b>The role of environmental affordances in game spaces: Mechanisms of urban image dissemination through interactive and immersive gameplay</b> Pengyu Liu, Nan Lin, Hui Zhang, China</p> <p><b>Analysis of gamified museum exhibition design from the perspective of the DMC model</b> Zhaoyu Wang, China</p> <p><b>Gaming immersion and cultural representation from the perspective of embodied cognition: A case study of Black Myth: Wukong</b> Weiyi Xu, Zhao Shuwang, China</p> <p><b>Content forms and information presentation in virtual reality - case: Communicating the sustainability of cruise ships</b> Kaisa Könnölä, Kaapo Seppälä, Markus Krusberg, Teijo Lehtonen, Finland</p> <p><b>The digital reconstruction of traditional Chinese opera: Interactive innovative design of Quanzhou string puppetry</b> Yue Zhang, China</p> <p><b>Gamification impact on agile team motivation: Theoretical framework</b> Dovile Valantiejene, Lina Girdauskiene, Lithuania</p>	
<b>132</b>	<b>Innovations in Sustainable Industry II</b> Co-Chairs: Mohamed Suliman Gardee and Jeffrey Mahachi, South Africa	<b>SBE</b>
13:00-14:30 AHFE 6: CRANE	<p><b>Long-term performance assessment of houses built with innovative building technologies: Insights from housing innovation hubs in South Africa</b> Jeffrey Mahachi, South Africa</p> <p><b>The impact of renewable energy on a grass-based biorefinery: Sustainability assessment of grass-derived proteins</b> Anne Mumbi, Karl Behrendt, Eric Siqueiros, UK</p> <p><b>Factors influencing student housing preferences: An analysis of communes and PBSAs in Johannesburg</b> Faith Dowelani, Mohamed Suliman Gardee, South Africa</p> <p><b>The reliability of the discomfort survey component within the discomfort survey and postural assessment (DiSPA) tool, applied on construction workers</b> Uchenna Okoro, Kenneth Lawani, Billy Hare, UK</p> <p><b>Transforming South African cities: The impact of big data analytics on smart city initiatives</b> Thabang Tiou, Douglas Aghimien, Bankole Awuziew, Clinton Aigbavboa, South Africa</p> <p><b>Assessing the current levels of vital physicochemical parameters of rivers in Oyo State Nigeria: A review</b> Olusayo Bamgbose, Clinton Aigbavboa, South Africa</p>	



<b>133</b>	<b>Training, Learning and Certification with AI and Data Analysis</b> Co-Chairs: Stefano Filippi, Italy and Biyao Li, China	<b>TELS</b>
13:00-14:30 AHFE 7: EGRET	<p><b>Implications and impact of adopting recommendations from the DOT/FAA/AM-24/20 Report on the Use of Electronic Health Records (EHR) to Support Pilot Aeromedical Certification</b> Abner Flores, Andrew Pagan, USA</p> <p><b>Exploring Jamaican students' readiness using the grade one cognitive skills assessment: a psychometric analysis</b> Sharline Cole, Tashane Haynes - Brown, Lamoine Samuels-Lee, Jamaica</p> <p><b>Exploring AI integration in engineering education: A framework for product representation and behavioral insights</b> Stefano Filippi, Italy</p> <p><b>Game-based learning for AI education: Systematic review</b> Biyao Li, Fang Liu, China</p> <p><b>The architecture and early results of the IL-PRO AI-driven immersive and adaptive learning system for industrial robotics</b> Seth Corrigan, Shahin Vassigh, Bhavleen Kaur, Mark Finlayson, Tisa Islam Erana, Giancarlo Perez, Bhanu Vodinepally, Biayna Bogosian, Mohammadreza Akbari Lor, Shu-ching Chen, USA</p> <p><b>Experiential and sustainable tourism: Teaching with artificial intelligence to native corn producers in Tlaxiaco, Oaxaca</b> Diana Rubi Oropeza-Tosca, Rodolfo Martinez-Gutierrez, Omar Jimenez-Marquez, Gaudencio Lucas-Bravo, Clara Ivette Rincon-Molina, Mexico</p>	
<b>134</b>	<b>3D Prototyping and Process Management</b> Co-Chairs: Ying Zhang, China and Rahul Sharma, India	<b>MFG</b>
13:00-14:30 AHFE 8: IBIS	<p><b>Aspects of nanoscale SAP of 18-8 stainless steel with permanent rare earth magnetic tool for humans</b> Rahul Sharma, India</p> <p><b>MetaBPL: Fault detection in business logic systems</b> Gregorios Katsios, Diego Manzananas Lopez, Sunny A Bhatt, Daniel A Balasubramanian, Samuel A Merten, Benjamin Ryjikov, Jonathan D Johnson, USA</p> <p><b>From composite filaments to low-loss circuits: A novel hybrid manufacturing approach to 3D-printed electronics</b> Artis Fils, Hanna Maxie Brüggemann, Andrei Alexandru Popa, Denmark</p> <p><b>Operation and maintenance system design with AI Intervention: Bibliometric analysis based on Citespace</b> Ying Zhang, Jun Zhang, China</p> <p><b>Introducing 3D printing of TPU in the leather industry: A discontinuous innovation of local manufacturing practices in Italy</b> Gabriele Goretti, Lorenzo Masini, Sonia Massari, Caterina Dastoli, Italy</p> <p><b>Empowering process engineers with natural user interfaces for incident analysis and documentation – A case study in battery cell manufacturing</b> Matthias Kammermeyer, Patricia Gödri, Tobias Dapolonia, Germany</p>	
<b>REFRESHMENTS: 14:30-15:00 • FOYER</b>		
<b>195</b>	<b>Motivating Engineering III</b> Co-Chairs: Xiaobu Zhou, China and Masashi Yamada, Japan	<b>APD</b>
15:00-16:30 AHFE 1: GRIFFIN A	<p><b>Construction and empirical research for user demand-oriented food product design pathway</b> Xiaobu Zhou, China</p> <p><b>Design of multisensory keyboard for enhancing communication among long distance lovers</b> Dingchen Sun, Ze Bian, China</p> <p><b>Effects of motion speed on the impressions of monster characters appearing in the video game Dragon Quest</b> Kaito Miyoshi, Masashi Yamada, Japan</p> <p><b>Impressions of the face of female character produced in computer graphics</b> Kyoji Hamazaki, Masashi Yamada, Japan</p> <p><b>Gamified emotional evaluation of virtual architectural spaces: The G-SOR Framework and "Lost In Reverie"</b> Han Jiang, Yan Yixing, Kai Zhang, Xiaomei Nie, Yuhan Dong, Xing Sun, China</p> <p><b>Design and analysis of a flying car life-saving scheme based on analogical reasoning</b> Yuchen Bai, Wenjin Zhang, Jiwen Tian, China</p>	

<p><b>196</b></p> <p>15:00-16:30 AHFE 2: GRIFFIN B</p>	<p><b>Harnessing Digital Human Modeling for Optimization and Safety</b> Co-Chairs: Johnell Brooks, USA and Eleonora Bianca, Italy</p> <p><b>Biomechanics simulation and damage analysis of head and neck on extraction aircrew escape system</b> Zhongqi Liu, Qian Yang, Qianxiang Zhou, China</p> <p><b>A multimodal approach to predicting toe temperature: Experimental, CFD, and LSTM-based methods</b> Eleonora Bianca, Antonio Buffo, Gianluca Boccardo, Marco Vanni, Ada Ferri, Italy</p> <p><b>Digital human modeling for naval aviation: Past, present, and future</b> Lori Basham, Barry Shender, Andrew Koch, Bethany Shivers, Kenneth Ritchey, USA</p> <p><b>The impact of four field of view conditions on team marksmanship performance using a team shooting scenario (TSS) task</b> Johnell Brooks, Patrick J. Rosopa, Casey Jenkins, Jose D. Villa, Elizabeth Perry, Patrik T. Schuler, Joshua Roper, Paul Riebe, Samuel Blankenship, Megan Gilstrap, Amanda Meldzuk, Matthew Morris, Rebecca Pool, Jackson Grant, Daniel Greco, Braden Hudgins, Tyler Warren, Kevin J. Pritchett, William Cox, Todd Shealy, Frank M. Rice, Peioneti Lam, Linda DeSimone, Edward Hennessy, K. Blake Mitchell, USA</p>	<p><b>DHMAO</b></p>
<p><b>197</b></p> <p>15:00-16:30 AHFE 3: GRIFFIN C</p>	<p><b>Trust, Perceptions, and Ethical Implications of AI</b> Co-Chairs: Sam Holley, USA and Hamad Alhamad, Kuwait</p> <p><b>Preliminary survey on trust levels in AI-clinical decision support systems among medical professionals</b> Yada Sriviboon, Arisara Jiamsanguanwong, Ornthicha Suphattanaporn, Thailand</p> <p><b>The growth of AI in commercial aviation maintenance: Will aviation maintenance technicians trust AI to use it?</b> Mark Miller, Sam Holley, Leila Halawi, Bettina Mrusek, Mark Kanitz, USA</p> <p><b>A tool to complement human intelligence: The math behind human indispensibility</b> Christopher Robinson, Joshua Lancaster, USA</p> <p><b>Ethical dilemmas and regulations of artificial intelligence under the perspective of Nietzsche's Superman Philosophy based on the alien: Romulus</b> Yazhou Chen, China</p> <p><b>Perceptions and usage of AI-based technology among preschool children in Bulgaria</b> Lyubomir Kolarov, Bulgaria</p>	<p><b>GIC</b></p>
<p><b>198</b></p> <p>15:00-16:30 AHFE 4: PINE</p>	<p><b>Human Computer Interaction: Virtual and 3D Environments</b> Co-Chairs: Joni Rajamäki, Finland and Sara Buonocore, Italy</p> <p><b>Passthrough extended reality in maritime commissioning</b> Joni Rajamäki, Mirva Tapola, Mikko Salonen, Olli Heimo, Teijo Lehtonen, Finland</p> <p><b>Augmented reality aids logistics: Augmenting workers' abilities during customs inspections</b> Sara Buonocore, Edoardo Granata, Antonia Maria Tulino, Giuseppe Di Gironimo, Italy</p> <p><b>Effects of computer aided design modeling system with hand gesture and eye tracking interface</b> Yuekang Wang, Jia Hao, Hongwei Niu, Qing Xue, Xiaonan Yang, Fei Di, China</p> <p><b>Adaptive control point manipulation technique for free-form deformation based on gesture interaction</b> Jia Hao, Yuxuan Liu, Hongwei Niu, Xiaonan Yang, Yuhan Hu, China</p> <p><b>Augmented reality for learning traditional wicker weaving</b> Ian Garcia, Janne Huys, Louis Van Bouwel, Alexander Van Volsom, Jouke Verlinden, Belgium</p> <p><b>Exploring spatial perception and cognitive adaptation in altered environments using virtual reality</b> Faezeh Salehi, Manish Dixit, USA</p>	<p><b>HCI</b></p>

<b>199</b>	<b>Systems and Software Engineering Requirements and Challenges</b> Co-Chairs: Bhushan Lohar and Nathan Sonnenfeld, USA	<b>HFSSE</b>
15:00-16:30 AHFE 5: SPRUCE	<p>Applying model-based requirement patterns library concept to astronaut space suit system for deep-space travel and Mars surface exploration missions                      Bhushan Lohar, John Wade, USA</p> <p>Evaluating Naïve Bayes Classifier Accuracy: A study of BoW and TF-IDF feature extraction for classification of requirements-related excerpts                      Lucien Niacaris, Nathan Sonnenfeld, Blake Nguyen, Florian Jentsch, USA</p> <p>Model-based architectural patterns concept for home security system solutions                      Daijha Hilliard, Bhushan Lohar, John Wade, Kari Lippert, Saeed Latif USA</p> <p>IT tool stack optimization in collaborative projects: An evaluation and recommendation framework                      Can Cagincan, Juliane Balder, Roland Jochem, Rainer Stark, Germany</p> <p>Simulation based study on heat transfer in microchannel heat sink with square ribs surface                      Bobby Mathew, Fadi Alnaimat, UAE</p>	
<b>200</b>	<b>Human Factors in Rail Transport</b> Co-Chairs: Tom Hyatt, UK and Laura Mancuso, Italy	<b>RR</b>
15:00-16:30 AHFE 6: CRANE	<p>Analysis of subjective sleepiness considering the influences of driving workload, duration between stations, and driving duration in railway driving                      Daisuke Suzuki, Chizuru Nakagawa, Hajime Akatsuka, Naohiro Akiu, Japan</p> <p>Human factors in accident and incident investigation and reporting: A framework for understanding human and system errors in UK railway operations                      Tom Hyatt, Owen McCulloch, UK</p> <p>Design, development, and evaluation of a crew resource management learning experience to improve freight rail safety                      William Phillips, Angie Sebok, Anna Grome, USA</p> <p>On track for safety: Redefining color vision standards in the U. S. railway                      Juksana Mai Ngam, Zander N. Miller, Ainsley N. Bernard, Corey A. Gregory, Alex Chaparro, USA</p> <p>Strategic objectives and data collection for regions implementing new mobility services                      Toshihisa Sato, Naohisa Hashimoto, Takafumi Ando, Takahiro Miura, Tran Viet, Japan</p> <p>Designing the interaction with intelligent decision support systems in control rooms: Challenges, strategies, and insights for railway applications                      Laura Mancuso, Chiara Tancredi, Roberta Presta, Italy</p> <p>Assessing factors influencing transportation choices in Taiwan                      Huang Fei-Hui, Taiwan</p>	
<b>201</b>	<b>Safety Management and Accident Preparedness</b> Co-Chairs: Sofia Monteiro, Brazil and Özlem Kaya, Turkey	<b>SMHF</b>
15:00-16:30 AHFE 7: EGRET	<p>Evaluation of employees' fire safety awareness: A university example                      Hüstre Gizem Akalp, Ugur Saklangic, Serpil Aytac, Turkey</p> <p>Ergonomical evaluation of the workstation suitability level of businesses: The example of the leather sector                      Özlem Kaya, Turkey</p> <p>Safe production laboratory: The positive impact of human factors learning journeys on organizational culture                      Ana Paula Ferreira Martins Pignaton, Fabio Viana Majdalani De Melo, Pedro Francisco Alvarenga Larrama, Marlen Oliva, Brazil</p> <p>Optimizing air quality in military vehicles: A sensor fusion and machine learning approach focusing on low-ventilation scenarios                      Rafael de Pinho Andre, Sofia Monteiro, Brazil</p>	
<b>202</b>	<b>Training and Emergency Preparedness II</b> Co-Chairs: Matthew Daggett, USA and Rune Elvegard, Norway	<b>TELS</b>
15:00-16:30 AHFE 8: IBIS	<p>Competency modeling in a digital age: Eedefining skills and capabilities for a technologically evolving workforce                      Maria Chaparro Osman, Cherrise Ficke, Julia Brown, USA</p> <p>From gaps to gains: Exploring how professional diversity influences situational awareness in collaborative environments                      James Badu, Natalia Andreassen, Rune Elvegard, Salman Nazir, Norway</p> <p>Deconstructing human-system analytical processes to identify effective strategies for information discovery and situational awareness                      Matthew Daggett, Jessamyn Liu, USA</p> <p>Embracing the immersive frontier: exploring the benefits, challenges, and potential of virtual reality training for EPA pollution prevention in manufacturing facilities                      Michael Oetken, USA</p>	

Wednesday, July 30

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, SUNDAY, JULY 27, 2025

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- A1. Correlation between headquarter placement and mirroring collected intel to gain knowledge on an adversaries headquarter location based on gender: An ISR assessment  
Jenna Cotter, Justin Nelson, Samuel Johnston, Timothy Heggedahl, Justin Morgan, USA
- A2. Muscle fatigue monitoring based on detecting changes in movement variability during repetitive light material handling task: A pilot study  
Kazuki Hiranai, Masaya Noguchi, Akisue Kuramoto, Motomu Nakashima, Japan
- A3. Empowering transportation electrification and grid planning: A bottom-up predictive modeling framework  
Alec Zhixiao Lin, Isaac Chen Fu, USA
- A4. Adaptive HMI for cyber-physical systems: facilitating multi-level system understanding for rapid response and recovery  
Caroline Kingsley, Laura Mieses, Michael Jenkins, USA
- A5. Enhancing situational awareness through an adaptive HMI haptic wearable for individualized, sensory-optimized information delivery  
Michael Jenkins, Sean Kelly, Daniel Ferris, USA
- A6. Enabling and advancing adaptive HMI ecosystems for highly configurable multimodal smartphone control  
Michael Jenkins, Daniel Ferris, Sean Kelly, USA
- A7. Cognitive and task predictors of naval submarine school academic performance: A pilot study  
Sylvia Guillory, Anna Jane Brown, Dawn Debrodt, Chad Peltier, Jeffrey Bolkhovsky, USA
- A8. Effects of different humidity levels on the human body in a high-temperature environment at high altitude  
Qing Zhang, Mengxiong Ye, Shaojun Cai, Changhua Gao, Peng Yu, Jiachen Nie, Li Ding, Qin Yang, China
- A9. Responses to and recognition of simultaneously-occurring driving hazards using auditory and visual in-vehicle alerts  
Morgan McAlphin, Robert Gutzwiller, D'Mitri Seymour, USA
- A10. Information ergonomics and cognitive dissonance by AI in HUMINT/OSINT processes  
Jussi Okkonen, Mika Hyytiäinen, Mia Laine, Svante Laine, Tuuli Keskinen, Markku Turunen, Finland
- A11. Piloting prejudice: Cross-cultural insights into gender and ethnic biases in the aviation industry  
Sean Crouse, Stephen Rice, Samuil Nikolov, Megan Harris, Albert Bouquet, Connor Rice, Stephen Woods, Scott Winter, USA
- A12. Enhancing utility customer service and compliance: An AI-powered approach to call analysis  
Jonathan Presto, Kar Wai Lee, USA
- A13. Antenna technology in energy recovery systems  
Marian Wnuk, Poland
- A14. Individual characteristics using pen writing behavior: Intra- and inter-individual variability perspectives  
Sugiyama Soichi, Noriyuki Kida, Japan
- A15. Assessment of a novel EMG controller training platform for a hands-free wheelchair interface  
Maanya Pradeep, Delaney Gunnell, Pavan Senthil, Viviana Rivera, Peter Smith, Matt Dombrowski, John Sparkman, Albert Manero, USA
- A16. Understanding neighbor food needs and preferences through an interactive dashboard  
Steven Jiang, USA
- A17. AI vs. authentic: Decoding architectural imagery  
Hamid Estejab, Sara Bayramzadeh, USA
- A18. Investigation of image processing methods based on photographs for automatic posture recognition  
Naoki Sugiyama, Yoshihiro Kai, Hitoshi Koda, Toru Morihara, Noriyuki Kida, Japan
- A19. A vehicle dashboard dataset towards visual complexity design  
Zihao Liu, Zhizi Liu, Tao Chen, Liang Zhang, China
- A20. Cross-cultural analysis of firefighting safety attitudes, behaviors, and practices  
Erik Kambarian, Philip Butler, Sabrina Cohen-hatton, Rob Honey, UK

# Interactive Poster Demonstrations

## **POSTER/DEMONSTRATION SESSIONS, SUNDAY, JULY 27, 2025**

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- A21. Deception in marketing: Implications for consumer product warnings  
Michael Wogalter, USA
- A22. Hybrid co-creative design process combining in-person and remote situations  
Namgyu Kang, South Korea
- A23. Virtual teleportation into real spaces via digital avatars for remote collaborative design  
Shinichi Fukushima, Japan
- A24. Improving airspace awareness: Possible conspicuity solutions for safe sUAS operations  
Jennifer Martinez, Justin MacDonald, USA
- A25. Cooking, culture, and well-being: exploring dietary acculturation among international students in the U. S.  
Swetha Anand, Le Mai Van Nguyen, Lizhu Zhang, Cecilia Xi Wang, USA
- A26. Machine learning applications in studying women healthcare.  
Priyanshi Kumari, India
- A27. Virtual natural explorer: integrating AI and simulation for nature education  
Yingbing Zhu, USA
- A28. Effects of human-machine interface (HMI) design on passenger trust and user experience during urban air mobility trips  
Youngwoo Kim, South Korea
- A29. Balancing efficiency and well-being: The impact of AI-driven algorithmic management on retail employees  
Yi Zhang, Ruiwen Zhang, Pei- Luen Patrick Rau, China
- A30. Effectiveness of pedagogic conversational agents (PCA) in the field of design education - A Chinese context perspective  
Fan Chen, China
- A32. XAI for detecting and explaining anomalies of IOT network traffic.  
Brian Dowtin, USA
- A33. Assessing the impact of Kinect-based gait monitoring on perceived loneliness among individuals with visual disabilities  
Hyung Nam Kim, Imonkhae Ugboya, Vincent Ogunmwonyi, USA
- A34. AGENT-A/B: Advancing A/B testing in UI/UX design with a multimodal multi-agent framework  
Jieyu Yang, Xin Guan, Zekun Wu, UK
- A35. Decoding digital ecosystems: The role of mobile apps as more-than-human agents  
Chi Zhu, China

## **POSTER/DEMONSTRATION SESSIONS, MONDAY, JULY 28, 2025**

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- B1. Assessing the effectiveness of virtual reality tasks as stress-inducing environments  
Bernard Costa, Débora Colodete, Marcus Baldo, Brazil
- B2. A Context-aware multimodal recommender system (C-MRS) conceptual solution for a UI in VR solutions  
Tagreed Alsulimani, Saudi Arabia
- B3. Human factors in emergency rescue: Can real-time spatial video enhance communication and command capabilities?  
Weixuan Li, Glyn Lawson, Setia Hermawati, Kyle Harrington, UK
- B4. Healing exhibition design for highly sensitive individuals: A design project of immersive therapeutic experiences  
Yuying Jiang, China
- B5. Prototype of system to identify shape of figure from contour drawn by line of sight  
Haruki Yamada, Hiroaki Kosaka, Japan

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, MONDAY, JULY 28, 2025

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- B6. Systemic potentials for resilient safety and health management  
Joana Afonso Fernandes, Pedro Arezes, Matilde Rodrigues, Juan Carlos Rubio Romero, Judite Barbosa, M<sup>a</sup> del Carmen Pardo Ferreira, Portugal
- B7. The impact of shoulder strap length on shoulder pressure during jumping jacks utilizing a musculoskeletal biomechanical finite element model  
Jiazhen Chen, Kit Lun Yick, Yue Sun, Joanne Yip, Hong Kong SAR China
- B8. Exploratory research on nipple displacement patterns analysis during cycling and running  
Yin Ching Doris Keung, Kit Lun Yick, Joanne Yip, Annie Tw Yu, Hong Kong SAR China
- B9. AI in health education: Perspectives from faculty and students at Kuwait University's Health Sciences Center  
Hamad Alhamad, Sara Alrasheed, Fatemah Alobaid, Dalal Almutairi, Sara Alharban, Kuwait
- B10. Right hand, left hand, both hands: Exploring the relationship between handedness, interactivity and cognitive load in virtual reality procedural training  
Fiona Duruaku, Tulsi Patel, Nathan Sonnenfeld, Blake Nguyen, Florian Jentsch, USA
- B11. Vulnerabilities & interventions in cognitive warfare: Principles/applications of 4E cognition, episodic memory, and extended reality  
Nathan Sonnenfeld, Stephen Fiore, Florian Jentsch, USA
- B12. Position-specific differences in maximal voluntary contraction and rate of force development in collegiate American football players  
Kei Sato, Noriyuki Kida, Japan
- B13. Biological evaluation of antimicrobial treated textiles  
Alina Vladu, Emilia Visileanu, Alexandra Gabriela Ene, Madalina Georgiana Albu Kaya, Viviana Roman, Carmen Gaidau, Romania
- B14. Analysis of user acceptance and perception for external HMIs based on driving situations  
Yoonkyeong Kim, Sunhong Park, South Korea
- B15. The IMPATTO project: Driving technological innovation for occupational safety and health and company performance  
Gaia Vitrano, Guido J. L. Micheli, Davide Accordini, Huan Xu, Alessandro Marinaccio, Stefano Signorini, Angelo Castaldo, Alessia Marrocco, Nicolas Djukic, Francesco Pio Di Bello, Gioele D'Amore, Italy
- B16. Evaluating the impact of a sports-and-agriculture workcation on employees' well-being: A controlled study among Japanese workers  
Takumi Iwaasa, Japan
- B17. Decision making in driving moral dilemmas: A driving simulator study  
Dongyuan Wang, Jacqueline Miller, Pingying Zhang, USA
- B18. Evaluation model for human error response training  
Yuka Banno, Yusaku Okada, Yu Shibuya, Japan
- B19. Investigation and analysis of necessary tasks and responses for unmanned automated bus in challenging situations  
Naohisa Hashimoto, Yanbin Wu, Masaki Masuda, Toshihisa Sato, Japan
- B20. Evaluation of product awareness by using image n-back tasks focused on semantic memory  
Masaru Kadota, Hana Muto, Asuka Miyahara, Takayuki Yamamoto, Ryo Tanaka, Hitomi Tsuchiya, Masato Kawamoto, Ippeita Dan, Japan
- B21. Invisible challenges, visible solutions: Human factors vehicle design considerations for emotional disabilities  
Olivia Honan, Brandon Dreslin, Barbara Chaparro, Alex Chaparro, USA
- B22. The mediating role of teamwork in the relationship between authentic leadership and work engagement among Japanese nurses  
Kentaro Inaba, Yasuyuki Houchi, Takumi Iwaasa, Yuki Mizuno, Yasuyuki Yamada, Emiko Togashi, Yumi Arai, Motoki Mizuno, Japan
- B23. Frontal Cortex Hemodynamics during measured by NIRS in a Rehabilitation Task of Cerebrovascular Disorders Using VR Technology  
Yuki Mizuno, Shino Izutsu, Mayumi Nishikubo, Yoshihiro Hoshikawa, Japan
- B24. Event-based face anonymization for privacy-preserving vision  
Maryam Moshrefizadeh, Hadi Aliakbarpour, USA

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, MONDAY, JULY 28, 2025

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- B25. Enhancing nurses' well-being: The effect of ergonomic interventions on work-related musculoskeletal disorders  
Niloofer Rahgoshay, Hadi Daneshmandi, Mozghan Seif, Roya Dokoohaki, Mina Shahbazi, Reyhane Sadeghian, Sanaz Farhadpour, Iran
- B26. Performance and reliability evaluation of 3D printer-based orthopedic implants  
Lee Hyeran, South Korea
- B27. The influence of the backrest shape of mesh office chairs on comfort  
Yu Na, Yingyin Deng, Xvjun Zhang, Hailin Ge, Heng Li, Zitong Li, China
- B28. Influence of audiovisual cues on older adults' performance in slider-based tasks in smart home interfaces  
Na Yu, Zixuan Lian, China
- B29. Did the bumper sticker piss you off? The mediating roles of blame judgement and negative emotion between slogans and aggressive driving behaviour  
Jiayan Yu, Yan Ge, Xuchi Luo, Weina Qu, China
- B30. Impact of text features on driving performance and legibility of in-vehicle screens  
Jun Li, Weina Qu, China
- B31. Optimization strategies for VR game interface design based on depth perception research  
Shuyang Wei, Lin Wang, Hao Fan, China
- B32. Artificial intelligence and 4D printing: Improving the design and manufacturing efficiency of wearable products  
Lin Wang, Shuyang Wei, Hao Fan, China
- B33. Sitting vs. squatting: A systematic scoping review of toilet postures and associated health outcomes  
Niloofer Rahgoshay, Hadi Daneshmandi, Mohammad Rahdar, Laleh Nikoo, Iran
- B34. Examining the impact of controversial paid advertisements by Youtubers on consumer boycott intentions  
Jaewon Choi, South Korea
- B35. The activity of the ultrasound physician – comparative analysis between procedures using transducers in abdominal examinations and their repercussions  
Poliana Vilar Torres Ferreira, Angélica de Souza Galdino Acioly, Brazil

## POSTER/DEMONSTRATION SESSIONS, TUESDAY, JULY 29, 2025

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- C1. The interaction design of registration machines  
Jecha Suleiman Jecha, Walusimbi Peter, China
- C2. Development of basic guidelines for safe lift access for disabled skiers  
Kazusa Oki, Japan
- C3. Lessons From past disasters: Reshaping Natech risk perception for a safer future  
Giulia De Cet, Chiara Vianello, Carlo Pellegrino, Italy
- C4. Unpacking the invisible: Design ethnography for human factors in a data-driven world  
Tarika Kumar, Matteo Zallio, USA
- C5. Ergonomic investigation on interventional radiology in the era of robotic surgery  
Kazuhiko Shinohara, Japan
- C6. Evaluating the complexity of wearable electromyographic multi-gesture control capabilities  
Abrianna Lalle, Samantha Migliore, Maanya Pradeep, Sophie Bennett, Ethan Bell, Jeffrey Stevenson, Viviana Rivera, John Sparkman, Albert Manero, Matt Dombrowski, Peter Smith, USA
- C7. Exploration of a generative AI assistant for model-based system engineering (eGAIA4MBSE)  
Bryan Croft, USA
- C8. Multi-sensory integration and emotional responses: The impact of materials on perception and emotion  
Zitong Zhou, Wei Gong, China

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, TUESDAY, JULY 29, 2025

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- C9. The mental burden resulting from the nature of the work performed among prison officers  
Sylwia Sumińska, Joanna Mazur-Różycka, Patrycja Łach, Łukasz Kapica, Poland
- C10. Workplace intervention utilizing physical activity and relaxation as a strategy for reducing stress and musculoskeletal complaints  
Sylwia Sumińska, Joanna Mazur-Różycka, Patrycja Łach, Poland
- C11. Optimizing human-system performance in EHR environments through AI/ML-driven Interventions  
Ashley M. Ercolino, Jesse D. Flint, Nicole Dorey, Logan Gisick, D'An Knowles Ball, Arindam Gupta, Ross Speir, Claire L. Hughes, William Rivera, Kay M. Stanney, USA
- C12. A qualitative study of leader-member exchange theory and psychological safety in high school baseball team  
Sakura Nemoto, Motoki Mizuno, Yasuyuki Hochi, Japan
- C13. A techno-organizational model for enhancing occupational safety and health management in resilient ecosystems  
Gaia Vitranò, Guido J. L. Micheli, Davide Accordini, Alessandra Neri, Yichen Sun, Huan Xu, Xiranai Dai, Armando Guglielmi, Diego De Merich, Mauro Pellicci, Italy
- C14. Neuroscientific approach to leadership for building high-reliability organizations in healthcare  
Motoki Mizuno, Yuki Mizuno, Yasuyuki Hochi, Takumi Iwaasa, Kentaro Inaba, Emiko Togashi, Yumi Arai, Yasuyuki Yamada, Japan
- C15. Cognitive load and memory for wireless emergency alerts  
Hagar Baruch, Mary Still, USA
- C16. Leveraging surface- and deep-level diversity to enhance cybersecurity team performance  
Crystal Fausett, USA
- C17. RescueFlex: A modular intelligent rescue robot system for complex disaster scenarios  
Zhixin Cai, China
- C18. Human centered design considerations for augmented reality application  
Henry Arnold, Barbara Chaparro, USA
- C19. Anthropomorphism and the Kansei Evaluation in product design between Japan and Thailand  
Haruki Tanaka, Namgyu Kang, Khongthat Thongphun, Japan
- C20. Data science approach for forecasting U. S. inflation rates  
Kazi Islam, Kazi Tasin, USA
- C21. Challenges and opportunities in e-Commerce distribution networks in Johannesburg  
Matanda Alan Tshinkobo, John Ikome, Ibrahim Idowu, South Africa
- C22. Power shortages and sustainable solutions in South Africa: The role of INGA 3 hydropower and green supply chains  
Frank Mushingellette Mbangi, South Africa
- C23. Visualisation design of Yangtze rRver ecosystem based on multi-site light environment analysis  
Weirui Wang, China
- C24. Speak up and speak out: A qualitative study on voluntary safety reporting process in aviation organizations in Thailand  
Fan Zhou, China
- C25. Framework for the design of collaborative and data-driven systems in packaging logistics  
Hermann Foot, Tim Chilla, Germany
- C26. Safety design of agricultural brush cutters considering human-machine interaction  
Seung-min Mo, South Korea
- C27. Enhancing visual comfort in the handle design of FURS robot consoles  
Yong You, Yun Wang, Luwei Xu, China
- C28. Ergonomic risk assessment using revised NIOSH lifting equation - A decision tree based approach  
Kung-jeng Wang, Taiwan
- C29. Mental health concerns in construction industry  
Alfredo Soeiro, Portugal
- C30. A systematic review on unveiling the causes and effects of decision fatigue to develop a multi-domain conceptual framework  
Pratima Sarayanan, Nurul Ahad Choudhury, USA



# Interactive Poster Demonstrations

## **POSTER/DEMONSTRATION SESSIONS, TUESDAY, JULY 29, 2025**

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- C31. Design of a digital library kiosk for public area in Comoros  
Saandi Youssouf, Said Youssouf Kadafi, Xusheng Zhang, Rehema Ali, Ubed Amir, Ofori Edmund, China
- C32. Hierarchically memory-assisted (HMA) framework for autonomous computational orchestration with large language models  
Ankit Walishetti, Shridhar Mehendale, USA
- C33. Kano-QFD-based design study on the ease of use of animal monitoring compartments  
Xinyue Li, Mengya Zhu, Yong Gong, China
- C34. More than fantasy: How science fiction reflects and shapes societal attitudes toward AI  
Apurva Patil, Philipp Jordan, USA
- C35. Modeling the number of road traffic incidents at single-lane roundabouts  
Elżbieta Macioszek, Poland

## **POSTER/DEMONSTRATION SESSIONS, WEDNESDAY, JULY 30, 2025**

Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- D1. Evaluating weight limits for manual material handling across age groups in Japan  
Tanghuizi Du, Fuyuki Oyama, Kazuyuki Iwakiri, Japan
- D2. An AI powered glasses attachment for the visually impaired  
Jan-Torsten Milde, Germany
- D3. Beyond the response: How timing and context shape empathy, responsiveness, and social presence in AI conversations  
Haya Elbadawy, Wi-Suk Kwon, USA
- D4. The impact of cultural values on human-ai collaboration in a decision-making task  
Riley Schwanz, Tiffany Lui, Elizabeth Fox, Gene Alarcon, August Capiola, James Bliss, George Reis, USA
- D5. Investigating the effect of consumer trust on purchase intentions in a multichannel live streaming e-commerce context: A trust transfer perspective  
Yi-shun Wang, Hsin-hui Lin, Nam Tien Duong, Tai-ling Wu, Taiwan
- D6. A method to measure direction change ability at irregular times in juniors  
Kyosuke Oku, Noriyuki Kida, Yoshihiro Kai, Hitoshi Koda, Megumi Gonno, Maki Tanaka, Tomoyuki Matsui, Yuya Watanabe, Toru Morihara, Japan
- D7. Factors influencing the adoption intention of business simulation systems among decision science teachers in higher education  
Yu-min Wang, Taiwan
- D8. Co-designing with generative artificial intelligence: The suppression of student creativity in the design process  
Wenjia Li, Yushi Zhou, Xiaoyu He, Jing Zhang, Jiafa Chen, Dawei Zhang, China
- D9. A comparison of ARIMA and XGBoost Models for Times Serie Analysis utilizing human behavioral data  
Vivian Egan, Elizabeth Fox, USA
- D10. A comprehensive and quantitative framework of user experience evaluation in GenAI software  
Yue Shan, Xin Chen, Li Yan, China
- D11. Understanding sensory perception and cognitive abilities based on the elderly's capability for independent evacuation  
Sungkyung Kim, Jihye Ryu, Youngchan Kim, Jun-Ho Choi, Seong-Hwan Yoon, Wonhwa Hong, South Korea
- D12. Think inside the box: The impact of Bounding Boxes on Visual Grouping  
Sahitha Vuddagiri, Shrreya Agarwal, Kimberley Orsten Hooge, Michael Byrne, Sherry Mao, USA
- D13. Investigating human factors engineering integration in ATC cybersecurity resilience  
Hui Wang, Nathan Schultz, USA

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, WEDNESDAY, JULY 30, 2025







Time: 8:30-16:00

Room: Griffin Grand Ballroom

Virtual Room: AHFE Posters

- D14. Sewing skills for sustainable fashion focusing on the starting knot  
Mika Morishima, Satoki Nakashima, Japan
- D15. Human-robot communication: Utilizing light-based signals to convey robot operating state  
Kurtis Riener, Vipashyana Patel, Lin Jiang, Behin Elahi, Mahima Suresh, Lesther Papa, Yue Luo, USA
- D16. A scoping review to identify key concepts in the athlete dimension of the university version of the sports integrity index  
Yuito Matsuoka, Motoki Mizuno, Naoto Shoji, Japan
- D17. Beyond Chatbots: Athlete AI as an emotional support agent for adolescents  
Ichen Lo, Muting Rau, China
- D18. Embodied cognition in virtual lunar exploration: A multi-modal interactive installation for space science education  
Zhixin Cai, Jiang Zhaolu, China
- D19. Triggers and consequences: A multidimensional analysis of the rebound effect in sustainable design  
Yi Liu, Shunqing Jia, Huibin Lian, China
- D20. Design of 3D automated breast ultrasound systems based on human factors engineering  
Soyeon Noh, Yehwon Baek, Wonseuk Jang, South Korea
- D21. Inclusive gaming through brain-computer interfaces: The mind mastery experience  
Osita Odunze, Elijah Ballou, Abdul Kanu, Andrew Kelly, Eric Void, Naja A Mack, USA
- D22. Bridging the healthcare communication gap: Applying behavioural science and human factors principles in hospital signages  
Siew Bee Ng, Pak Chuan Alex Lee, Jun Howe Johnathan Siew, Chuen Jye Yeoh, Singapore
- D23. PyPro: Code your way. Shape your future!  
Elijah Ballou, Osita Odunze, Michael Adeleke, Naja A Mack, USA
- D24. Robot autonomy through learning from multi-camera images and human selection behavior  
Manabu Motegi, Japan
- D25. Collision course: Elevating concussion awareness through immersive virtual reality  
Michael Adeleke, Elijah Ballou, Abdul Kanu, Naja A. Mack, USA
- D26. Results of testing the Portable Helicopter Oxygen Delivery System (PHODS) for use up to 17,990ft in a high-altitude chamber  
Andreas Werner, Gerhard Lindstädt, Germany
- D27. Product owner toolkit  
Urvashi Datt, USA
- D28. AI enhanced space travel technology for the common human launches new space race and a rush for the easily accessible mineral wealth on the moon  
Jesse Leaman, USA
- D29. Evaluation of an AI-driven VR simulation for congestive heart failure diagnosis  
Duo Wang, Anthony Nepomuceno, Shandra Jamison, Isaac Ryals, Mae Vogel, Caroline Cao, USA
- D30. Self-monitoring of blood glucose: The perception of physicians who care for older adults in a health service in Mexico  
Stephanie Daphne Prado-Jimenez, Rosa Rosales-Cinco, Carlos Aceves-Gonzalez, Alexandra Lang, Mexico
- D31. User-centred design at The Whitworth: Architecture for community and culture  
Fang Bin Guo, Linting Guo, UK
- D32. Thermal comfort in an industrial environment: Conditions and parameters  
Norma Pinto, Kazuo Hatakeyama, Brazil
- D33. Safety analysis for driving mode of flying cars  
Lin Jie, Wenjin Zhang, Haoyun Peng, China
- D34. The wonder trio: Identity, intelligence and intuition  
Mario Chaves, Portugal
- D35. Accelerating Legacy Code Migration with Artificial Intelligence  
Amir Schur, Max Graves, Stephanie Heckel, USA
- D34. Understanding risk-benefit assessment in driver decision-making within driving automation systems  
Jing Chen, USA

# Exhibitors

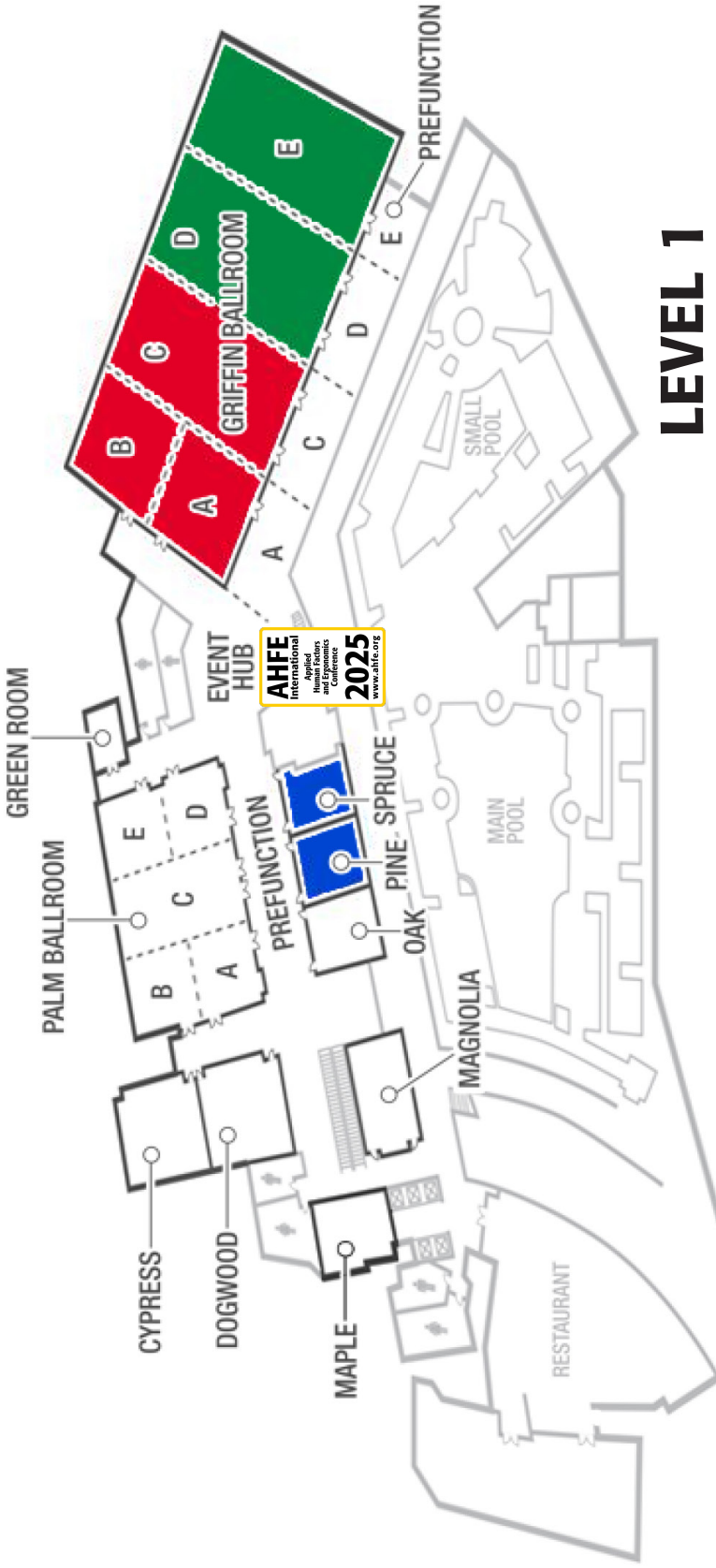
BOOTH	COMPANY	
101	 <b>SMART EYE®</b>	<b>Smart Eye AB</b> "Smart Eye is the global leader in Human Insight AI, technology that understands, supports and predicts human behavior in complex environments. Bridging the gap between humans and machines for a safe and sustainable future. Smart Eye was founded in 1999, is publicly traded and headquartered in Sweden with offices in the US, UK, Germany, Denmark, Egypt, Japan, Singapore and China. Through our Research Instruments, Smart Eye offers the world's most advanced eye tracking systems for analyzing human behavior. Offering unparalleled performance in complex environments, our carefully crafted instruments enable unparalleled insights into human behavior and human-machine interaction in automotive, aviation, assistive technology, media & marketing, behavioral science and many more fields."
102	 <b>Xsens</b> <small>a Movella® brand</small>	<b>Xsens (Movella)</b> Create Safer, More Productive Work Environments with Xsens. Conventional ergonomic assessment methods are time-consuming, subjective, and often tedious. Xsens Ergonomic solutions enable the identification and prevention of musculoskeletal disorder risks, providing actionable insights to design safer and more productive work environments. Embrace a future focused on employee empowerment and well-being.
103	 <b>MOOVENCY</b>	<b>MOOVENCY</b> Moovency designs and develops solutions specialized in quantifying the risks of musculoskeletal disorders (MSDs). Using artificial intelligence and computer vision, we have developed KIMEA, a range of solutions that objectively and instantly assess the risks associated with workers' movements and postures. By detecting biomechanical constraints in real time, KIMEA reduces the risk of MSDs and sustainably improves working conditions.
105	 <b>REVOPOINT</b>	<b>Revopoint International</b> Revopoint is pushing 3D scanning technology forward to make it available for everyone because we believe access will inspire the innovators of tomorrow. Revopoint specialize in Revopoint 3D Scanning Solutions,
106	 <b>machines</b> <small>an Open Access Journal by MDPI</small>	<b>MDPI Machines Journal</b> Machines is an international, peer-reviewed, open access journal on machinery and engineering published monthly online by MDPI.
107	 <b>AHFE International</b>	<b>AHFE International (Open Access Journal)</b> With more than 5000 open access quality articles already published, AHFE International Open Access is an Emerging Science & Engineering, Human Factors and Human-centered Computing pioneer in scholarly open access publishing supporting academic and research communities worldwide. Accepted peer-review papers submitted for indexing worldwide.

## CONFERENCE ORGANIZATION:

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Technical Support: [support@ahfe.org](mailto:support@ahfe.org)

# Conference Layout



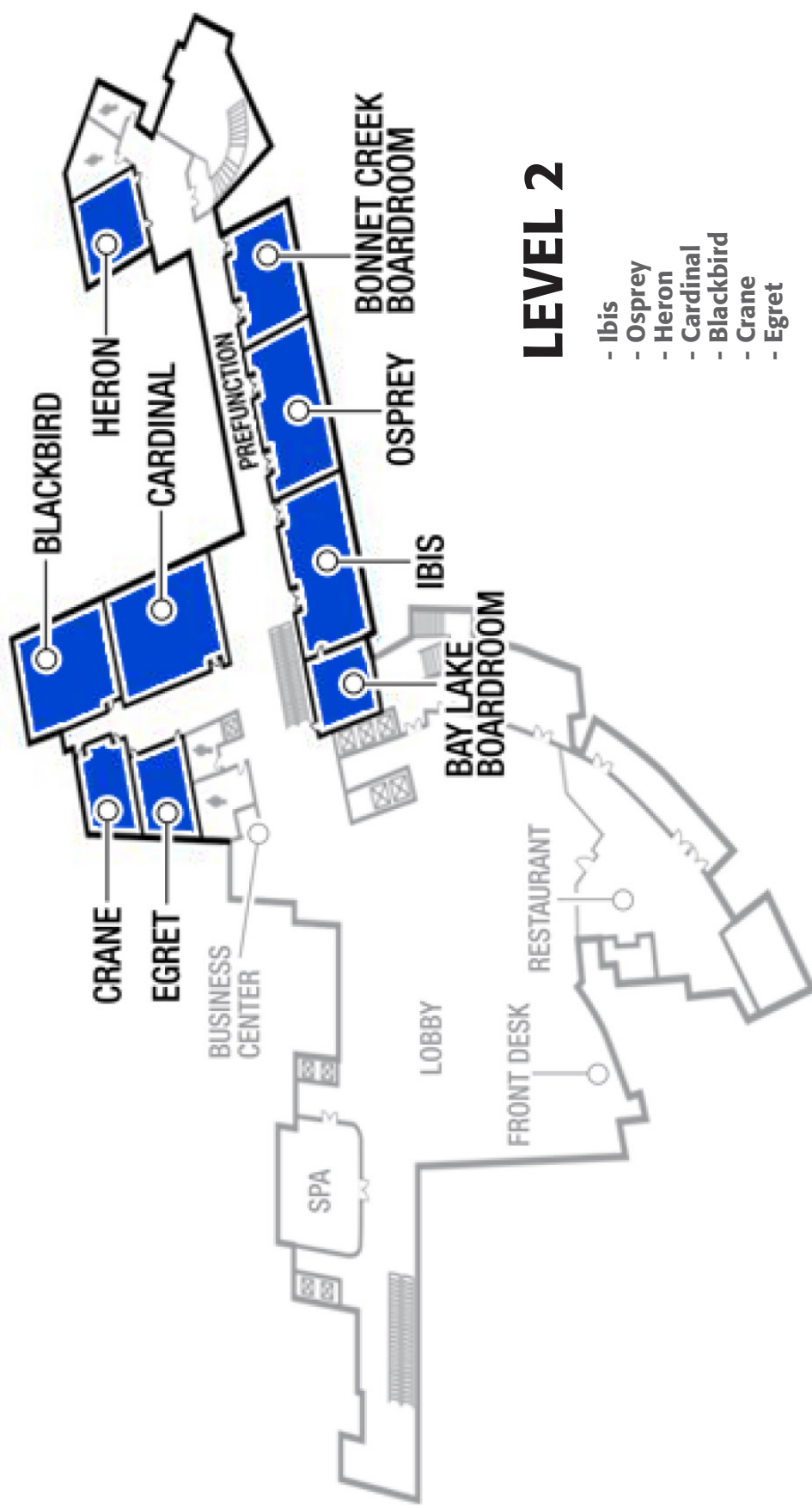
## LEVEL 1

- EVENT HUB - Registration Desk
- Griffin Ballroom (Exhibition)
- Griffin Ballroom (Poster Session)
- Pine
- Spruce

## GRIFFIN GRAND BALLROOM

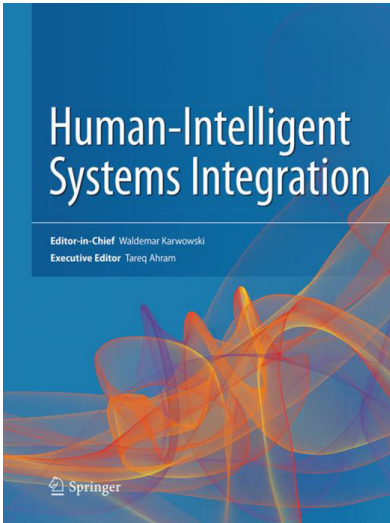
Opening Session and Keynote Address: **Saturday, July 26 • 17:30-18:30 (EDT)**

Conference Reception: **Saturday, July 26 • 18:30-22:00 (EDT)**



## LEVEL 2

- Ibis
- Osprey
- Heron
- Cardinal
- Blackbird
- Crane
- Egret



## Human - Intelligent Systems Integration

- **Highlights research aimed at integrating people and artificial intelligence (AI)**
- **Merges the engineering perspective with the human and social dimension of AI-based technologies**
- **Covers both the technological development of intelligent engineering systems and the human dimension of AI applications across all areas of modern society**

### AIMS & SCOPE

Human – Intelligent Systems Integration publishes original articles on research and development efforts intended to promote the comprehensive integration of people, intelligent engineering systems and machine learning. To help foster the design of future generations of artificial intelligence-based systems and environments, the journal focuses on novel methodologies, design tools and solutions that advance our understanding of the nature of human collaboration with intelligent machines, technologies and services, as well as other artificial cognitive systems. The Journal addresses all aspects of complex human systems integration, with a particular emphasis on intelligent systems in all domains of human activity, and on applications to industry, business, government, education, and everyday life. It attaches equal importance to human and artificial intelligence (AI), while also exploring key hardware, software and system interfaces in the technological and management processes for developing future engineering systems. It offers a truly multidisciplinary platform for researchers and practitioners alike, discussing emerging issues in the field of integration of humans and engineering systems, with a special focus on (but not limited to) AI-based technologies and human-machine learning. Its goal is to advance the theory and applications of human-AI systems collaboration, which taps into and expands on our knowledge of human-inspired design of intelligent systems. The journal also examines the human dimensions of complex cyber-physical systems and embedded artificial intelligence with applications across all domains of modern society. Selected areas and topics of interest include, but are not limited to:

- Human-Systems Integration
- Intelligent Engineering Systems
- Human Collaboration with AI-based Technologies
- Design of Artificial Cognitive Systems
- Human-AI Teaming and Collaboration / Living with AI
- Intelligent Interfaces for Human-System Integration
- Self-Organization and Human-Inspired AI Design
- Embedded Human-System Intelligence
- Intelligent Complex Systems Engineering
- Human-System Interaction: Complexity and Uncertainty
- Emergent Behaviors of Human-Cyber-Physical Systems

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