



**2023**  
**AHFE**  
International

AHFE International Conference on  
Human Factors in Design, Engineering, and  
Computing (AHFE Hawaii Edition)

# Final Program

**December 4-6, 2023**

**Waikiki Beach Marriott Resort & Spa  
Honolulu, Hawaii, USA**



[WWW.HAWAII.AHFE.ORG](http://WWW.HAWAII.AHFE.ORG)

# Conference Reception

MONDAY DECEMBER 4, 2023  
17:00-20:00 (HST)

WAIKIKI BEACH MARRIOTT RESORT & SPA  
(LEVEL 3 - OCEAN FRONT TERRACE)

2552 KALAKAUA AVENUE  
HONOLULU, HAWAII 96815

(REGISTERED PARTICIPANTS ONLY - DRESS: HAWAIIAN-STYLE, PHOTO ID REQUIRED)



# Conference Organization

CONFERENCE TRACKS	ACRONYM
Application of Emerging Technologies	AET
Artificial Intelligence and Social Computing	AISC
Applications of Technologies in Healthcare and Medicine	ATHM
Augmented, Virtual and Mixed Reality Simulation	AVM
Computation and Intelligent Design	CID
Emerging Technologies and Business Applications	ETBA
General Topics	GEN
Human-Centered Design	HCD
Human-Computer Interaction	HCI
Human-Technology and Future of Work	HTFW
Wearable Technologies, Social and Affective Computing	WTSAC

## CONFERENCE ADDRESS

Waikiki Beach Marriott Resort & Spa  
2552 Kalakaua Avenue  
Honolulu, Hawaii 96815

## CONFERENCE ADMINISTRATOR

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## ART DIRECTOR

Branka Wedell



# Conference at a Glance

Conference program schedule is listed in Hawaii Standard Time (HST) - Honolulu Timezone

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

#	SESSION TITLE	TRACK	ROOM
<b>TUESDAY, DECEMBER 5, 2023 - SESSION TIME: 8:30-10:00 (HST)</b>			
1	Plenary: Artificial Intelligence and Social Computing I	AISC	AHFE 1: Milo 1
2	Plenary: Training, Education, and Learning Sciences	GEN	AHFE 2: Milo 2
3	Plenary: Human-Centered Design and Applications in Cybersecurity	HCD	AHFE 3: Milo 3
4	Plenary: Human-Centered Design I	HCD	AHFE 4: Milo 4
5	Plenary: Human-Computer Interaction I	HCI	AHFE 5: Milo 5
6	Plenary: Application of Emerging Technologies: Service and Manufacturing Industries I	AET	AHFE 6: Milo 6
<b>REFRESHMENTS: 10:00-10:30 • ROOM: LANAI RECEPTION AREA (LEVEL 2)</b>			
<b>TUESDAY, DECEMBER 5, 2023 - SESSION TIME: 10:30-12:00 (HST)</b>			
7	Application of Emerging Technologies I	AET	AHFE 1: Milo 1
8	Applications of Technologies in Healthcare and Medicine I	ATHM	AHFE 2: Milo 2
9	Emerging Technologies: Cognitive and Neuroergonomics	WTSAC	AHFE 3: Milo 3
10	Physical Ergonomics and Human Factors Applications	GEN	AHFE 4: Milo 4
11	Human-Technology and Future of Work: Reliability and Human Performance I	HTFW	AHFE 5: Milo 5
12	Application of Emerging Technologies: Robotics and Automation I	HTFW	AHFE 6: Milo 6
<b>REFRESHMENTS: 12:00-12:30 (HST) • ROOM: LANAI RECEPTION AREA (LEVEL 2)</b>			
<b>TUESDAY, DECEMBER 5, 2023 - SESSION TIME: 12:30-13:30 (HST)</b>			
13	Emerging Technologies and Business Applications	ETBA	AHFE 1: Milo 1
14	Human Error, Reliability, Resilience, and Performance: Simulation Applications	HTFW	AHFE 2: Milo 2
15	Human-Technology and Future of Work: Social and Occupational Ergonomics	HTFW	AHFE 3: Milo 3
16	Application of Emerging Technologies: Transportation Research I	AET	AHFE 4: Milo 4
17	Design Applications and User Experience I	HCI	AHFE 5: Milo 5
18	Augmented, Virtual and Mixed Reality Simulation I	AVM	AHFE 6: Milo 6
<b>TUESDAY, DECEMBER 5, 2023 - SESSION TIME: 13:30-14:30 (HST)</b>			
19	Wearable Technologies and Affective Computing	WTSAC	AHFE 1: Milo 1
20	Artificial Intelligence and Social Computing II	AISC	AHFE 2: Milo 2
21	Application of Emerging Technologies II	AET	AHFE 3: Milo 3
22	Human-Centered Design II	HCD	AHFE 4: Milo 4
23	Emerging Technologies and Human-Automation Collaboration	AET	AHFE 5: Milo 5
24	Augmented, Virtual and Mixed Reality Simulation II	AVM	AHFE 6: Milo 6

# Conference at a Glance

Conference program schedule is listed in Hawaii Standard Time (HST) - Honolulu Timezone

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

#	SESSION TITLE	TRACK	ROOM
<b>WEDNESDAY, DECEMBER 6, 2023 - SESSION TIME: 8:30-10:00 (HST)</b>			
25	Human-Computer Interaction II	HCI	AHFE 1: Milo 1
26	Applications of Technologies in Healthcare and Medicine II	ATHM	AHFE 2: Milo 2
27	Emerging Technologies in Healthcare and Medicine I	ATHM	AHFE 3: Milo 3
28	Human-Technology and Future of Work: Reliability and Human Performance II	HTFW	AHFE 4: Milo 4
29	Application of Emerging Technologies: Robotics and Automation II	HTFW	AHFE 5: Milo 5
30	Application of Emerging Technologies: Service and Manufacturing Industries II	AET	AHFE 6: Milo 6
<b>REFRESHMENTS: 10:00-10:30 • ROOM: LANAI RECEPTION AREA (LEVEL 2)</b>			
<b>WEDNESDAY, DECEMBER 6, 2023 - SESSION TIME: 10:30-12:00</b>			
31	Application of Emerging Technologies: Transportation Research II	AET	AHFE 1: Milo 1
32	Design Applications and User Experience II	HCI	AHFE 2: Milo 2
33	Augmented, Virtual and Mixed Reality Simulation III	AVM	AHFE 3: Milo 3
34	Artificial Intelligence and Social Computing III	AISC	AHFE 4: Milo 4
35	Human-Centered Design III	HCD	AHFE 5: Milo 5
36	Human-Computer Interaction III	HCI	AHFE 6: Milo 6
<b>REFRESHMENTS: 12:00-12:30 (HST) • ROOM: LANAI RECEPTION AREA (LEVEL 2)</b>			
<b>WEDNESDAY, DECEMBER 6, 2023 - SESSION TIME: 12:30-13:30 (HST)</b>			
37	Applications of Technologies in Healthcare and Medicine III	ATHM	AHFE 1: Milo 1
38	Emerging Technologies in Healthcare and Medicine II	ATHM	AHFE 2: Milo 2
39	Application of Emerging Technologies: Service and Manufacturing Industries III	AET	AHFE 3: Milo 3
40	Application of Emerging Technologies: Transportation Research III	AET	AHFE 4: Milo 4
41	Design Applications and User Experience III	HCI	AHFE 5: Milo 5
42	Artificial Intelligence and Social Computing IV	AISC	AHFE 6: Milo 6
<b>WEDNESDAY, DECEMBER 6, 2023 - SESSION TIME: 13:30-14:30 (HST)</b>			
43	Human-Centered Design IV	HCD	AHFE 1: Milo 1
44	Applications of Technologies in Healthcare and Medicine IV	ATHM	AHFE 2: Milo 2
45	Application of Emerging Technologies: Transportation Research IV	AET	AHFE 3: Milo 3
46	Artificial Intelligence and Social Computing V	AISC	AHFE 4: Milo 4
47	Human-Centered Design V	HCD	AHFE 5: Milo 5
48	Artificial Intelligence and Social Computing VI	AISC	AHFE 6: Milo 6

<b>1</b>	<p><b>Plenary: Artificial Intelligence and Social Computing I</b> Co-Chairs: Taissa Gladkova and Philipp Jordan, USA</p>	<b>AISC</b>
8:00-10:00 AHFE 1: MILO 1	<p><b>CHAAIS: Climate-focused human-machine teaming and assurance in artificial intelligence systems - Framework applied toward wildfire management case study</b> Taissa Gladkova, Dhanuj Gandikota, Sanika Bapat, Kristen Allison, USA</p> <p><b>The evolution of AI on the commercial flight deck: Finding balance between efficiency and safety while maintaining the integrity of operator trust</b> Mark Miller, Sam Holley, Leila Halawi, USA</p> <p><b>TAUCHI-GPT: Leveraging GPT-4 to create a multimodal open-source research AI tool</b> Ahmed Farooq, Jari Kangas, Roope Raisamo, Finland</p> <p><b>A survey of beliefs and attitudes toward artificial intelligence – practical implications and fictional depictions</b> Raiden Santos, Paula Alexandra Silva, Waleed Zuberi, Philipp Jordan, USA</p> <p><b>Exploring the impact of generative artificial intelligence on the design process: Opportunities, challenges, and insights</b> Yu-ren Lai, Hsi-Jen Chen, Chia-han Yang, Taiwan</p> <p><b>Relationships among personality traits, ChatGPT usage and concept generation in innovation design</b> Stefano Filippi, Italy</p>	
<b>2</b>	<p><b>Plenary: Training, Education, and Learning Sciences</b> Co-Chairs: Swetha Anand, USA and Yen-Chen Pan, Taiwan</p>	<b>GEN</b>
8:00-10:00 AHFE 2: MILO 2	<p><b>Interdisciplinary education using game design for electronic waste</b> Swetha Anand, Cecilia Xi Wang, USA</p> <p><b>Quantitative evaluation method examination for mock classes in a faculty development program</b> Satori Hachisuka, Kayoko Kurita, Shinichi Warisawa, Japan</p> <p><b>Effects of reflective writing for students in the design project</b> Yen-Chen Pan, Hsi-Jen Chen, Taiwan</p> <p><b>Further development of BIM education: A literature review of game-based learning approaches and a proposal for a game-based solution in facility management</b> Sharina Alves, Germany</p> <p><b>Use of online tools to introduce students to research</b> Kim-Phuong L. Vu, Panadda Marayong, Elyzza M. Aparicio, Chi-Ah Chun, Simon Kim, USA</p> <p><b>Does the embodiment influence the success of visuo-haptic learning?</b> Sara Buonocore, Francesca Massa, Giuseppe Di Gironimo, Italy</p>	
<b>3</b>	<p><b>Plenary: Human-Centered Design and Applications in Cybersecurity</b> Co-Chairs: Marko Schuba, Germany and Kanato Takahashi, Japan</p>	<b>HCD</b>
8:00-10:00 AHFE 3: MILO 3	<p><b>Human-centric introduction to a complex cybersecurity standard</b> Jan Eißler, Marko Schuba, Tim Höner, Sacha Hack, Georg Neugebauer, Germany</p> <p><b>A method for adversarial example generation using wavelet transformation</b> Kanato Takahashi, Masaomi Kimura, Imam Mukhlash, Mohammad Iqbal, Japan</p> <p><b>Analysis of cybersecurity risk for factory systems</b> Hiroshi Sasaki, Kenji Watanabe, Ichiro Koshijima, Japan</p> <p><b>Towards agile worth-oriented systems engineering for future (AWOSE 4F) – Considering sustainability goals and issues in development processes</b> Benjamin Strenge, Thomas Schack, Germany</p> <p><b>Digitization, cybersecurity and risk management in the oil and gas sector in the post COVID world: A systematic review</b> Huma Imran, Mohamed Salama, Colin Turner, UAE/Bahrain/UK</p>	

<b>4</b>	<p><b>Plenary: Human-Centered Design I</b> Co-Chairs: Ichiro Hirata, Japan and José Vicente, Portugal</p>	<b>HCD</b>
<p>8:00-10:00 AHFE 4: MILO 4</p>	<p><b>Comparison of backpacks with air mesh back panels and curved boards in standing position</b> Ichiro Hirata, Hiroyuki Nakamoto, Takashi Nonaka, Japan</p> <p><b>Effects of filtered air- and bone-conduction sounds' presentation in mastication on food texture</b> Hiroyuki Nakamoto, Kento Kawanishi, Ichiro Hirata, Japan</p> <p><b>Computer mimetics in visible performance: The late work of the Portuguese experimental poet Ernesto Melo e Castro</b> Jorge Dos Reis, Portugal</p> <p><b>Design for sustainability tools: Categories of classification towards practical use</b> José Vicente, David Camocho, Portugal</p> <p><b>Exploring correlations of PCMI metrics in museum creativity through line chart</b> Hui Cheng, Xiao Qiu, China</p> <p><b>The characteristics and influencing factors of the colour of the Cizhou Kiln porcelain</b> Haina Wang, Fangfei Liu, Yun Chen, China</p>	
<b>5</b>	<p><b>Plenary: Human-Computer Interaction I</b> Co-Chairs: Kathy Wang, USA and Ju Yeong Kwon, South Korea</p>	<b>HCI</b>
<p>8:00-10:00 AHFE 5: MILO 5</p>	<p><b>Using design thinking to reveal human input needs for augmented reality applications in manufacturing environments</b> Mohammad Jeelani, USA</p> <p><b>Humane entrepreneurship in the creative fashion industry: Role of entrepreneurs' intuition on entrepreneurial decision-making and performance</b> Mohammed-Aminu Sanda, Lilian Ama Afun, Anna Alacovska, Obi Berko Damoah, Ghana</p> <p><b>Designing non-contact interior space for space users' sense of safety</b> Ju Yeong Kwon, Da young Ju, South Korea</p> <p><b>Designing engaging gaming experience for learning</b> Kathy Wang, USA</p> <p><b>A method of advertising information design in subway space based on passengers' needs for cognition</b> Zhipeng Zhang, Xing Fang, Wenyi Xu, China</p>	
<b>6</b>	<p><b>Plenary: Application of Emerging Technologies: Service and Manufacturing Industries I</b> Co-Chairs: Rainer Nägele, Germany and Christopher Rosen, USA</p>	<b>AET</b>
<p>8:00-10:00 AHFE 6: MILO 6</p>	<p><b>Advanced systems engineering and continuous value shaping: opportunities and future directions for value-added innovations with services</b> Rainer Nägele, Jens Neuhüttler, Walter Ganz, Germany</p> <p><b>Developing a human-centered reference model for streamlining failure management in supply chains: An integrative approach to communication processes and recommender systems for SME</b> Turgut Refik Caglar, Elena Andrushchenko, Maurice Meyer, Efe Deniz Karaaslan, Roland Jochem, Germany</p> <p><b>Application of ChatGPT in design thinking</b> Heiko Fischer, Martin Dres, Sven Seidenstricker, Germany</p> <p><b>Addressing the practical challenges of implementing blockchain in engineering and manufacturing</b> Andreas Kneissler, Stefan Oelbracht, Germany</p> <p><b>Delivering Innovations from closets to clouds</b> Christopher Rosen, USA</p> <p><b>Vulnerability chaining blindness - A study in terminology viability and validity</b> Nikki Robinson, USA</p>	
<p>REFRESHMENTS: 10:00-10:30 • ROOM: LANAI RECEPTION AREA (LEVEL 2)</p>		

<b>7</b>	<b>Application of Emerging Technologies I</b> Co-Chairs: Meredith McQuerry, USA and Pei-ju Lin, Taiwan	<b>AET</b>
10:30-12:00 AHFE 1: MILO 1	<p><b>Evaluating engineered ease in structural firefighting protective clothing and its impact on wearer heat loss</b>                  Meredith McQuerry, Sherry Schofield, Reannan Riedy, USA</p> <p><b>The paradigm shift from Industry 4.0 implementation to industry 5.0 readiness</b>                  Arvin Shadravan, Hamid Parsaei, USA</p> <p><b>Application of fishery waste on window grilles cement tile</b>                  Pei-ju Lin, Fan-chu Kuo, Taiwan</p> <p><b>Construction and application of multi-dimensional feature model of Ming-style furniture based on grounded theory</b>                  Yali Wang, Yan Gan, Xinxiong Liu, China</p> <p><b>Evaluating performance of restaurant POS processes in fast-food restaurants</b>                  Hüseyin Şahan, Sultan Ceren Öner, İlker Baştürk, Ahmet Tugrul Bayrak, Turkey</p> <p><b>Fifth generation wireless network usage in food industry operations: Barriers and benefits</b>                  Adetola Adeniyi, Clinton Aigbavboa, South Africa</p>	
<b>8</b>	<b>Applications of Technologies in Healthcare and Medicine I</b> Co-Chairs: Jan Heibeyn and Okan Yilmaz, Germany	<b>ATHM</b>
10:30-12:00 AHFE 2: MILO 2	<p><b>A comparative evaluation of assistance systems for an instrument reprocessing workbench</b>                  Jan Heibeyn, Ju-yun Son, Armin Janß, Klaus Radermacher, Germany</p> <p><b>Limited training in undergarment and clothing removal techniques to expose wounds in combat care</b>                  Nichole L. Morris, Curtis M. Craig, Katelyn R. Schwieters, Marshall Mabry, Bradley A. Drahos, Eugene Floersch, William Kessler, USA</p> <p><b>Comparing brain activity between sitting and standing positions during optic flow with coinciding auditory cognitive tasks</b>                  Brian Sylcott, Rui Wu, Shanyue Guan, Chia-Cheng Lin, USA</p> <p><b>AlphaEnhancer: A resource-aware game agent for medical image super resolution for smart healthcare devices</b>                  Shabir Ahmad, Taegkeun Whangbo, South Korea</p> <p><b>Computerized heart rate analysis in the selection of therapy for patients with arterial hypertension</b>                  Irina Kurnikova, Shirin Gulova, Natalia Danilina, Artyom Yurovsky, Vladimir Terekhov, Russia</p>	
<b>9</b>	<b>Emerging Technologies: Cognitive and Neuroergonomics</b> Co-Chairs: Allison Bayro, USA and Taiyo Kojima, Japan	<b>WTSAC</b>
10:30-12:00 AHFE 3: MILO 3	<p><b>Brain activity difference during watching social behavior helping other people</b>                  Taiyo Kojima, Kouki Kamada, Toru Nakata, Takashi Sakamoto, Toshikazu Kato, Japan</p> <p><b>Can we distinguish driver's age based on their eye movements?</b>                  Jason Thai, Carolina Díaz Piedra, Leandro Luigi Di Stasi, Sašo Tomažič, Kristina Stojmenova, Jaka Sodnik, Slovenia</p> <p><b>Bridging the gap: Investigating the role of physiological indicators in capturing cognitive state changes among naval personnel</b>                  Allison Bayro, Noelle Brown, Shannon McGarry, Joseph Coyne, Kaylin Strong, Mikaela Aiken, Ciara Sibley, Cyrus Foroughi, USA</p> <p><b>Neural network model for visualization of conversational mood with four adjective pairs</b>                  Koichi Yamagata, Koya Kawahara, Yuto Suzuki, Yuki Nakahodo, Shunsuke Ito, Haruka Matsukura, Maki Sakamoto, Japan</p> <p><b>A framework towards subway safety information design based on passenger's needs for cognition</b>                  Chao Xu, Jinbo Xu, Zhipeng Zhang, China</p>	

<b>10</b>	<b>Physical Ergonomics and Human Factors Applications</b> Co-Chairs: Lokesh Singh, UK and Markus Koch, Norway	<b>GEN</b>
10:30-12:00 AHFE 4: MILO 4	<p><b>Upper trapezius muscle activity pattern at work and associated neck pain - Study protocol for analyses of a pooled EMG data set</b>                  Markus Koch, Mikael Forsman, Henrik Enquist, Henrik Baare Olsen, Karen Sogaard, Gisela Sjøgaard, Tove Østensvik, Petter Nilsen, Lars Louis Andersen, Markus Due Jacobsen, Rolf Westgaard, Paul Jarle Mork, Xuelong Fan, Morten Wærsted, Kaj Bo Veiersted, Norway/Sweden/Denmark</p> <p><b>Associations between trapezius muscle activity pattern at work and neck pain – preliminary analyses on a pooled dataset</b>                  Kaj Bo Veiersted, Markus Koch, Norway</p> <p><b>Use of predictive models based on biomedical signals and motion measurements for predicting extremity kinematics</b>                  Julia Wilk, Cezary Rzymkowski, Piotr Falkowski, Poland</p> <p><b>Feature selection for machine learning-based core body temperature estimation using hand-measurable biological information</b>                  Ryoya Oba, Keiichi Watanuki, Kazunori Kaede, Yusuke Osawa, Japan</p> <p><b>The effect of automated agents on individual performance under induced stress</b>                  Lokesh Singh, Sarvapali Ramchurn, UK</p> <p><b>Design of strength assistance gloves for female heavy manual workers based on visualization of electromyographic signals</b>                  Fangfei Liu, Haina Wang, Yun Chen, China</p>	
<b>11</b>	<b>Human-Technology and Future of Work: Reliability and Human Performance I</b> Co-Chairs: Ronald Boring and Casey Kovesdi, USA	<b>HTFW</b>
10:30-12:00 AHFE 5: MILO 5	<p><b>A review of sociotechnical approaches for nuclear power plant modernization</b>                  Casey Kovesdi, USA</p> <p><b>Digital twin framework for the resilient remote monitoring and operation of nuclear microreactors</b>                  Kaeley Stevens, Joseph Oncken, Megan Culler, Stephen Bukowski, Thomas Ulrich, Izabela Gutowska, Ronald Boring, USA</p> <p><b>An investigation of time distributions for task primitives to support the HUNTER dynamic human reliability analysis</b>                  Jooyoung Park, Taewon Yang, Jonghyun Kim, Ronald Boring, Chad Pope, USA</p> <p><b>HUNTER procedure performance predictor: Supporting new procedure development with a dynamic human reliability analysis method</b>                  Ronald Boring, Thomas Ulrich, Roger Lew, Jooyoung Park, USA</p> <p><b>The influence of spatial dimension on task completion in human reliability analysis: A pilot study</b>                  Huanlu Yuan, Hyesoo Lee, Jasmine Lima, Ronald Boring, USA</p>	
<b>12</b>	<b>Application of Emerging Technologies: Robotics and Automation I</b> Co-Chairs: Eric Peterson, USA and Daniel Schilberg, Germany	<b>HTFW</b>
10:30-12:00 AHFE 6: MILO 6	<p><b>Adapting a 3D printer as a robot for testing electronic control units in automotive context</b>                  Daniel Schilberg, Alexander Letzel, Germany</p> <p><b>Augmented learning for environmental robotics technologies (ALERT)</b>                  Biayna Bogosian, Eric Peterson, Shahin Vassigh, USA</p> <p><b>Validating trust in human-robot interaction through virtual reality: Comparing embodied and behind-the-screen interactions</b>                  Sebastian Rodriguez, Harsh Deep, Drshika Asher, James Schaffer, Alex Kirlik, USA</p> <p><b>Development of a compact walking assistive robot for exercise promotion and gait training</b>                  Keisuke Osawa, Yifan Hua, Kaiwen Duan, Kei Nakagawa, Eiichiro Tanaka, Japan</p> <p><b>Behavioral design focusing on personal distance to elicit attachment to pet robots</b>                  Yusuke Jupiter Guard, Keiko Yamamoto, Yu Shibuya, Japan</p> <p><b>Adaptive immersive learning environments for teaching industrial robotics</b>                  Eric Peterson, Biayna Bogosian, Shahin Vassigh, USA</p>	

REFRESHMENTS: 12:00-12:30 • ROOM: LANAI RECEPTION AREA (LEVEL 2)

<b>13</b>	<p><b>Emerging Technologies and Business Applications</b>                  Co-Chairs: Lu Yuan, USA and Sven Seidenstricker, Germany</p>	<b>ETBA</b>
<p>12:30-13:30                  AHFE 1: MILO 1</p>	<p>Application of emerging technologies to promote sustainable workforce in construction                  Lu Yuan, USA</p> <p>Customer success management: Principles, customer success manager, metrics                  Sven Seidenstricker, Germany</p> <p>Manufacturing cell working in a cyber-physical environment powered by a microgrid system                  Hector Rafael Morano-Okuno, Donovan Esqueda Merino, Emmanuel Garcia-Moran, Luis Villagomez-Guerrero, Mexico</p> <p>The past, present and future of the metaverse research: A bibliometric review                  Liqun Du, Xinyue Lei, China</p> <p>Bibliometric analysis of research on persuasive technology in the past decade: A web of science-based study                  Mingzhu Li, Ying Ni, China</p> <p>Technicians' attitudes to report unsafe practices in aircraft maintenance                  Steven Tze Fung Lam, Alan Hoi Shou Chan, Hong Kong SAR China</p> <p>Benefits of implementing value management practices on the performance of construction projects                  Modupe Mewomo, Comfort Olubukola Iyiola, South Africa</p>	
<b>14</b>	<p><b>Human Error, Reliability, Resilience, and Performance: Simulation Applications</b>                  Co-Chairs: Olugbenga Gideon, USA and Pei-chia Wang, Taiwan</p>	<b>HTFW</b>
<p>12:30-13:30                  AHFE 2: MILO 2</p>	<p>A graded approach to simulators: Feature requirements mapping to simulator types for nuclear plant control room research use cases                  Olugbenga Gideon, Ronald Boring, USA</p> <p>Simulation-based ergonomic experiment on fire evacuation                  Pei-chia Wang, Meng-hsuan Huang, Xin-ni Li, Taiwan</p> <p>Human error dynamic simulation of work as performed – modelling procedure deviations with empirically derived failure mechanisms                  Thomas Ulrich, Roger Lew, Ronald Boring, USA</p> <p>Future image making in the era of metaverse: Focus on non-fungible tokens and the future of art                  Young Jun Han, South Korea</p> <p>The digital astronaut simulation                  Kaitlin Lostroschio, Leslie Quiocho, Charlotte Bell, David Frenkel, Fouad Matari, Lauren Nilsson, USA</p> <p>Evaluating the efficacy of structured analytic techniques (SATs) as a support system to enhance decision-making within ISR mission environments                  Justin Nelson, Anna Maresca, Bradley Schlessman, Jerred Holt, John Kegley, Alan Boydston, USA</p>	
<b>15</b>	<p><b>Human-Technology and Future of Work: Social and Occupational Ergonomics</b>                  Co-Chairs: Daigo Kosaka and Toshihisa Doi, Japan</p>	<b>HTFW</b>
<p>12:30-13:30                  AHFE 3: MILO 3</p>	<p>Quantitative assessment of eddy current inspection technician skills                  Daigo Kosaka, Masahiro Hoshiba, Hiroyuki Nakamoto, Japan</p> <p>From engagement to immersion: A self-determination theory and approach to gamified cultural tourism                  Lusha Huang, Yuxiang Wang, China</p> <p>Investigation of a home office environment and lifestyles of workers that affect their perceived comfort in work-from-home                  Toshihisa Doi, Japan</p> <p>A framework for metro spatial regional cultural information design based on passengers' needs for cognition                  Wenyi Xu, Jinbo Xu, Zhipeng Zhang, China</p> <p>Beyond the lockdown: investigating the impact of COVID on technology adoption in the construction industry                  Samuel Adekunle, Clinton Aigbavboa, Opeoluwa Akinradewo, Peter Adekunle, Osamudiamen Otasowie, South Africa</p>	

<p><b>16</b></p>	<p><b>Application of Emerging Technologies: Transportation Research I</b> Co-Chairs: Clemens Faller and Karl Tschurtschenthaler, Germany</p>	<p>AET</p>
<p>12:30-13:30 AHFE 4: MILO 4</p>	<p><b>Clustering to determine interconnected activities in supervisory control tasks of pilots</b> Karl Tschurtschenthaler, Axel Schulte, Germany</p> <p><b>Exploring attribute associations in pedestrian-involved hit-and-run crashes through cluster correspondence analysis</b> Ashifur Rahman, Julius Codjoe, USA</p> <p><b>Addressing of human factors in the digital transformation of the automotive industry</b> Clemens Faller, Britta Weissert, Michael Krause, Nils Malzahn, Markus Schroll, Germany</p> <p><b>Factors research of visual comfort on driving interfaces: A review</b> Qianhui Shen, Jinyi Zhi, Zerui Xiang, Chunhui Jing, Ruizhen Li, Shu Feng, Xing Yao, China</p> <p><b>The role of human-centered design in advanced air mobility implementation process</b> Dimitrios Ziakkas, Marc St. Hilaire, USA</p> <p><b>Urban air mobility traffic analysis tool</b> Antoni Kopyt, Chad Stephens, Poland</p>	
<p><b>17</b></p>	<p><b>Design Applications and User Experience I</b> Co-Chairs: Gian Wild, Australia and Shinichi Fukuzumi, Japan</p>	<p>HCI</p>
<p>12:30-13:30 AHFE 5: MILO 5</p>	<p><b>Investigating the issues encountered for improving usability</b> Shinichi Fukuzumi, Japan</p> <p><b>Comparative evaluation of social media data analytics tools in event management: Usability and effectiveness</b> Angela Walters, Stacey Smith, Melissa Hunsicker Walburn, USA</p> <p><b>Risk-based selection of GUI elements for different input devices</b> Okan Yilmaz, Klaus Radermacher, Noah Wickel, Verena Nitsch, Armin Janß, Germany</p> <p><b>Analyzing user experience of e-scooter usage: A human-computer interaction perspective on personal vs shared e-scooters</b> Fei-hui Huang, Wen-chou Huang, Taiwan</p> <p><b>Accessibility roadmap for tertiary institutions</b> Gian Wild, Australia</p>	
<p><b>18</b></p>	<p><b>Augmented, Virtual and Mixed Reality Simulation I</b> Co-Chairs: Martin Robb, USA and Anton Nijholt, Netherlands</p>	<p>AVM</p>
<p>12:30-13:30 AHFE 6: MILO 6</p>	<p><b>Best practices in using Virtual Reality for Design Review</b> Martin Robb, Rune Vandli, USA/Norway</p> <p><b>The augmented welder profile: augmenting craftsmanship with digital and collaborative tools</b> Peter Thorvald, Magnus Holm, Mattias Strand, David Romero, Sweden</p> <p><b>The efficiency and user experience of AR walking navigation tools for older adults</b> Mingjun Liu, Liu Tang, Jia Zhou, China</p> <p><b>Toward a new definition of augmented reality</b> Anton Nijholt, Netherlands</p> <p><b>Scenario innovation of virtual reality in medical education: Possibility Advantages and Barriers</b> Yuqi Liu, China</p> <p><b>An augmented reality collaborative experiment: Evaluation of effectiveness for train remote maintenance tasks.</b> Ruizhen Li, Jinyi ZHI, Qianhui Shen, Zerui Xiang, China</p>	

<p><b>19</b></p>	<p><b>Wearable Technologies and Affective Computing</b> Co-Chairs: Michelle Stewart, USA and Shugo Ono, Japan</p>	<p>WTSAC</p>
<p>13:30-14:30 AHFE 1: MILO 1</p>	<p><b>Continuous personal monitoring and personalized hydration recommendations with wearable sweat sensors to prevent occupational heat stress</b> Michelle Stewart, Andrea Tineo, Benjamin Woodrow, Michael Wasik, Selina Chan, USA</p> <p><b>Effects of gain-loss messages on reinforcing motivation to sleep</b> Shugo Ono, Aoi Nambu, Kouki Kamada, Toru Nakata, Takashi Sakamoto, Toshikazu Kato, Japan</p> <p><b>Electrical parameters of conductive structures for smart textiles</b> Emilia Visileanu, Razvan Radulescu, Marian-Catalin Grosu, Sheilla Odhiambo, Adrian Salistean, Romania</p> <p><b>The role of physical and digital prototyping in designing wearable for rehabilitation: Case study of a digital exergame</b> Paolo Perego, Chiara Giovannini, Chiara Noli, Alessandro Celauro, Fedele Cavaliere, Paolo Tascoa, Mario Covarrubias, Italy</p> <p><b>The impact of parental treatment and education on social exclusion sensitivity in adult children: A questionnaire survey and fNIRS study using the Cyberball Paradigm</b> Takashi Sakamoto, Kouki Kamada, Atsushi Maki, Toshikazu Kato, Japan</p>	
<p><b>20</b></p>	<p><b>Artificial Intelligence and Social Computing II</b> Co-Chairs: Daniel Pittman and Jeffrey Bailey, USA</p>	<p>AISC</p>
<p>13:30-14:30 AHFE 2: MILO 2</p>	<p><b>Leveraging multi-user dungeons for ethical AI decision support systems: A novel approach</b> Daniel Pittman, Kerstin Haring, Chris Gauthierdickey, USA</p> <p><b>Measuring the impact of picture-based explanations on the acceptance of an AI system for classifying laundry</b> Nico Rabethge, Dominik Bentler, Germany</p> <p><b>Automated generation of synthetic person activity data for AI models training</b> Dominik Breck, Max Schlosser, Rico Thomanek, Christian Roschke, Matthias Vodel, Marc Ritter, Germany</p> <p><b>Building occupancy prediction based on multi-sensor information using transformer and machine learning approaches</b> Irfan Qaisar, Kailai Sun, Qianchuan Zhao, Tian Xing, Hu Yan, Zhe Yu, China</p> <p><b>How nuanced conviction in human beliefs might help inform the efforts to reduce generative artificial intelligence hallucinations</b> Jeffrey Bailey, Bob Rinker, USA</p>	
<p><b>21</b></p>	<p><b>Application of Emerging Technologies II</b> Co-Chairs: Tomohisa Hayakawa, Japan and Alexandra Gabriela Ene, Romania</p>	<p>AET</p>
<p>13:30-14:30 AHFE 3: MILO 3</p>	<p><b>Human evaluation of “colored” hydrogen transactions towards carbon neutrality</b> Tomohisa Hayakawa, Masato Kigoshi, Japan</p> <p><b>The incremental development of a collapsible aerial module for the management of the calamity generated by soil drought</b> Alexandra Gabriela Ene, Mihaela Jomir, Carmen Mihai, Romania</p> <p><b>Conceptualizing the influence of digital musicpreneurs on the music streaming ecosystem in the global south: An actor-network perspective</b> Reginald Arthur, Olivia Anku Tsede, Mohammed-Aminu Sanda, Eleonora Belfiore, Thilde Langevang, Ghana</p> <p><b>Value creation through balancing of multi-sided platforms: A comparative study</b> Amna Javed, Youji Kohda, Japan</p> <p><b>Mediation of the recovery of satisfaction on the influence of perceived fairness on client trust in a two-star hotel: Peru case</b> Luis Jhonny Dávila Valdera, Madeleine Espino Carrasco, Danicsa Karina Espino Carrasco, Edson David Valdera Benavides, Rafael Martel Acosta, Claudia Arbañil Chicoma, Mayury Jackeline Espino Carrasco, Royer Vasquez Cachay, Lady Violeta Dávila Valdera, Any Katherine Dávila Valdera, Senaida Milagros Guevara Cruzado, Peru</p>	

<b>22</b>	<b>Human-Centered Design II</b> Co-Chairs: Alexis Polanco, USA and Zhongzhen Lin, Taiwan	<b>HCD</b>
13:30-14:30 AHFE 4: MILO 4	<p>The user interface interaction design of central bank digital currency: An empirical study Zhongzhen Lin, Chien-Hsiung Chen, Shasha Li, Taiwan</p> <p>Effects of diabetic sole design with auxetic structure on reducing plantar peak pressure Zhang Jifa, Wang Hongrui, Liu Yiwen, Lin Yinyin, Huang Zile, China</p> <p>Multidisciplinary framework for creating the next-generation of human-centered design guidelines Alexis Polanco, Jr., Tsailu Liu, USA</p> <p>Visual narrative design of text in augmented reality interactive experience Yichen Zeng, Chao Zheng, China</p> <p>Real-time visualization design of electronic music based on immersion theory Weilin Su, China</p> <p>Instructional design and practice of installation art based on Steam-Obe concept Xu Dongjie, Ye Junnan, China</p>	
<b>23</b>	<b>Emerging Technologies and Human-Automation Collaboration</b> Chair: Zhizhong Li, China	<b>AET</b>
13:30-14:30 AHFE 5: MILO 5	<p>Effects of system reliability on workload and performance in image recognition tasks Xiaodong Xu, Liang Ma, Yun Zhang, Cheng Xu, China</p> <p>Enhancing pedestrian comprehension through a bio-motion eHMI design for autonomous vehicles Ruisi Shi, Ruolin Huang, Jingyu Zhang, China</p> <p>Privacy concern and acceptability of driver monitoring system Yueying Chu, Zihui Yuan, Peng Liu, China</p> <p>Comparing team situation awareness measures for fault diagnosis in digital nuclear power plants Manrong She, Zhizhong Li, China</p> <p>Exploring the effects of speech speed and environmental noise on human and machine performance in civil air traffic control communication tasks Manrong She, Yi Hu, Zhizhong Li, China</p>	
<b>24</b>	<b>Augmented, Virtual and Mixed Reality Simulation II</b> Co-Chairs: Aaron Crandall and Abdulaziz Banawi, USA	<b>AVM</b>
13:30-14:30 AHFE 6: MILO 6	<p>Development of virtual reality safety training to improve worker's behavior by practicing OSHA standards Abdulaziz Banawi, Kwame Amoah, USA</p> <p>Virtual reality for adult training Iulia Stefan, Lia Pop, Teodora Praja, Nicolae Costea, Romania</p> <p>Cockpit task management and task prioritization in a VR flight environment: A pilot study on the stability-flexibility dilemma Sophie-Marie Stasch, Wolfgang Mack, Germany</p> <p>Bridging the gap: Methodology for validating the use of virtual reality to support distributed aerospace cabin concept design and evaluation Shelley Roberts, Natalia Cooper, Jean-Francois Lapointe, Fabian Reimer, Mara Fuchs, Canada</p> <p>Physical human factor for the development of universal XR platform to build a metaverse supporting digital inclusive leisure &amp; culture Yun-hwan Lee, Yeong-hun Kwon, So-yeong Park, Dae-hoon Son, Ye-bon Kim, Hyo-jun Lee, Yohan Ko, Jong-sung Kim, Jongbae Kim, South Korea</p> <p>Fall PreNoSys: Augmented reality-based tripping hazard notification system and initial user feedback study Aaron Crandall, Daniel Olivares, Kole Davis, Kevin Dang, Alan Poblette, USA</p>	

<b>25</b>	<b>Human-Computer Interaction II</b> Co-Chairs: Aysegül Karakus, Germany and Da young Ju, South Korea	<b>HCI</b>
8:30-10:00 AHFE 1: MILO 1	<p>Exploring the ethical dimensions of accessible UX design: Balancing stakeholder interests and user intentions Aysegül Karakus, Germany</p> <p>Image-based icons: Effects of object recognition, feature recognition, and visual field for the design of learning management systems Shane Toyohara, Kim-Phuong L. Vu, USA</p> <p>Usability evaluation of food bank data visualizations using eye-tracking technology Kyle Hilliard, Mikaya Hamilton, Steven Jiang, Lauren Davis, USA</p> <p>Considerations for cabin design in urban air mobility's personal air vehicles with a focus on user experience Ju Yeong Kwon, Seok Jun Jin, Da young Ju, South Korea</p> <p>Exploring a software application to simulate rigid bodies to have fast conceptual designs Hector Rafael Morano-Okuno, J Enrique Chong Quero, Ricardo Jaramillo Godinez, Mexico</p> <p>Carbon footprint interaction through slow design computing and visual design Wu Yi Sin, Chen Chun Yen, Chang Teng Wen, Taiwan</p>	
<b>26</b>	<b>Applications of Technologies in Healthcare and Medicine II</b> Co-Chairs: Zoher Rafid-Hamed and Patrick Seitzinger, Canada	<b>ATHM</b>
8:30-10:00 AHFE 2: MILO 2	<p>Medical error disclosure in healthcare – The scene across Canada Jay Kalra, Zoher Rafid-Hamed, Canada</p> <p>The role of emerging technologies in health emergency planning and preparedness Patrick Seitzinger, Jay Kalra, Canada</p> <p>Enhancing daily posture correction: Testing a feedback-based assistive technology for individuals with physical disabilities Nao Takizawa, Mizuki Sugawara, Isamu Watabe, Hiroshi Nakamura, Shuta Murayama, Takumi Ohashi, Miki Saijo, Japan</p> <p>A novel stimulation protocol for vestibular rehabilitation Barbara La Scaleia, Francesco Lacquaniti, Myrka Zago, Italy</p> <p>Development of a smart pillbox with passive RFID to support prospective memory and medication adherence Shunsuke Hirayama, Daigo Misaki, Japan</p> <p>Unveiling readiness of medical first responders in simulation trainings: Insights beyond queries Annelien Malfait, Martine Van Puyvelde, Frederic Detaille, Xavier Neyt, Francois Waroquier, Nathalie Pattyn, Belgium</p>	
<b>27</b>	<b>Emerging Technologies in Healthcare and Medicine I</b> Co-Chairs: Hokey Min, USA and Yusuke Miyazaki, Japan	<b>ATHM</b>
8:30-10:00 AHFE 3: MILO 3	<p>Automatic classification of infant sleeping postures using an infrared camera Yuina Ninomiya, Shima Okada, Masanobu Manno, Yusuke Sakaue, Masaaki Makikawa, Tamami Watanabe, Yuko Fukuda, Japan</p> <p>Analysis of stair-ascent activities with handrail use in daily living space and motion features using RGBD camera Yusuke Miyazaki, Kohei Shoda, Koji Kitamura, Yoshihumi Nishida, Japan</p> <p>Age assessment of young individuals based on knee MRI Ana Pinjuh, Linda Vicković, Dunja Božić-Štulić, Sven Gotovac, Croatia</p> <p>Body movement support system for prevent disability and promote progress Wataru Sato, Aoi Yamamoto, Sayuri Kumagai, Yasuyuki Yoshida, Koki Ijuin, Chiaki Oshiyama, Tsutomu Fujinami, Takuichi Nishimura, Japan</p> <p>An intelligent decision support system for planning the spray operations of neuroinvasive disease insecticides Hokey Min, USA</p> <p>Shaping a device for anti-viral disinfection and checking health of people moving in public space Waldemar Bober, Barbara Gronostajska, Poland</p>	

<p><b>28</b></p>	<p><b>Human-Technology and Future of Work: Reliability and Human Performance II</b>                  Co-Chairs: Ronald Boring, USA and Jessica Schwarz, Germany</p>	<p>HTFW</p>
<p>8:30-10:00                  AHFE 4: MILO 4</p>	<p>Uncertainty-aware AI-facilitated decision support system for emergency call takers                  Minjung Lee, Sungwon Byon, South Korea</p> <p>Factors of the work environment impacting operator performance in military control centers: A holistic analysis                  Jessica Schwarz, Thomas E. F. Witte, Germany</p> <p>Assessment of skills for military air traffic control operators and the implications for the interaction design of command-and-control workstations                  Thomas E. F. Witte, Verena Rist, Jessica Schwarz, Germany</p> <p>The need of change in complex workplaces of the O&amp;G industry – from controlling human error to understanding the resilience of systems                  Josue Franca, Brazil</p>	
<p><b>29</b></p>	<p><b>Application of Emerging Technologies: Robotics and Automation II</b>                  Co-Chairs: Norbert L. Brodtmann, Germany and Jin Yong Kim, USA</p>	<p>HTFW</p>
<p>8:30-10:00                  AHFE 5: MILO 5</p>	<p>Exploring trust and performance in human-automation interaction: Novel perspectives on incorrect reassurances from imperfect automation                  Jin Yong Kim, Szu Tung Chen, Corey Lester, X. Jessie Yang, USA</p> <p>Use of collaborative robots to generate movement trajectories for rehabilitating patients with joint mobility limitations of the upper extremities                  Hector Rafael Morano Okuno, Rafael Caltenco Castillo, Guillermo Sandoval, Mexico</p> <p>Investigating emotional expressivity in robots wearing light-emitting clothing                  Takashi Sugiyama, Masayoshi Kanoh, Japan</p> <p>Influence of imperfect cooperation with a machine agent on human teammates' task mental models                  Gregory Funke, Michael Tolston, Brent Miller, Margaret Bowers, Katherine Holderby, Alexi Auld, Kelly Satterfield, Samantha Smith, USA</p> <p>Systemizing long-term research: Assessing long-term automation effects and behaviour modification                  Naomi Y. Mbelekani, Germany</p> <p>Kinematics of serial robotics - Algorithms for simplified calculation of direct &amp; inverse kinematics in a consistent coordinate reference system                  Norbert L. Brodtmann, Daniel Schilberg, Germany</p>	
<p><b>30</b></p>	<p><b>Application of Emerging Technologies: Service and Manufacturing Industries II</b>                  Co-Chairs: Markus Warg and Alexander Gorovoj, Germany</p>	<p>AET</p>
<p>8:30-10:00                  AHFE 6: MILO 6</p>	<p>Human-technology interaction and future of work: Science, logic and architecture perspectives on designing service platforms for future work                  Markus Warg, Markus Frosch, Germany</p> <p>Agile organization of shift work without shift models                  Stefan Gerlach, Nika Perevalova, Germany</p> <p>Fashion entrepreneurs' experiences of hope in a precarious Ghanaian creative industry                  Lilian Ama Afun, Ghana</p> <p>Evaluation of electromagnetic hypersensitivity (EHS) of business process outsourcing (BPO) employees under traditional and remote work environments                  Ezri Jiana Santos, Diana Marie De Silva, Haerold Dean Layaoen, John Kenneth Punongbayan, Josefa Angelie Revilla, Philippines</p> <p>A review of user guidance techniques to enable inclusive systems engineering for domain experts                  Sandor Dalecke, Germany</p> <p>Understanding challenges and facilitating knowledge transfer for service innovation: Insights from a survey of German service companies and a use case                  Alexander Gorovoj, Juergen Mueller, Germany</p> <p>e-banking usage by generations X, Y, and Z                  Luis Filipe Rodrigues, Abilio Oliveira, Helena Rodrigues, Portugal</p>	
<p>REFRESHMENTS: 10:00-10:30 • ROOM: LANAI RECEPTION AREA (LEVEL 2)</p>		

<b>31</b>	<b>Application of Emerging Technologies: Transportation Research II</b> Co-Chairs: Minhee Lee, South Korea and Jolene Feldman, USA	<b>AET</b>
10:30-12:00 AHFE 1: MILO 1	<p><b>Usability of pre-flight planning interfaces for supplemental data service provider tools to support un-crewed aircraft system traffic management</b> Jolene Feldman, Lynne Martin, Gregory Costedoat, Vimmy Gujral, USA</p> <p><b>The use of cardiac-based metrics to assess secondary task engagement during automated and manual driving: An experimental simulation study</b> Leandro Luigi Di Stasi, Francesco Angioi, Marcelo Fernandes, Giulia De Cet, M. Jesus Caurcel, Kristina Stojmenova, Jaka Sodnik, Christophe Prat, Carolina Díaz Piedra, Spain</p> <p><b>UX research for autonomous vehicles: Focusing on interaction with mobile device</b> Minhee Lee, Younjoon Lee, South Korea</p> <p><b>The role of digital twins in future transportation challenges</b> Dimitrios Ziakkas, Abner Del Cid Flores, Konstantinos Pechlivanis, USA</p> <p><b>Availability of wave transducer in car onboard system interface</b> Toshio Tsuchiya, Kentarou Nakamoto, Japan</p> <p><b>Charting the course: Human factors research for shipping energy-efficient operations</b> Mourad Zoubir, Marthe Gruner, Benjamin Schwarz, Jan Heidinger, Hans-Christian Jetter, Thomas Franke, Germany</p>	
<b>32</b>	<b>Design Applications and User Experience II</b> Co-Chairs: Shraddha Swaroop, USA and Cara Shaw, UK	<b>HCI</b>
10:30-12:00 AHFE 2: MILO 2	<p><b>Delivery apps in the hands of older adults: A usability study</b> Begoña Julia Nehme, Javiera Rosell, Chile</p> <p><b>Utilizing dimensional emotion representations in speech emotion recognition</b> John Lorenzo Bautista, Yun Kyung Lee, Seungyoon Nam, Chanki Park, Hyun Soon Shin, South Korea</p> <p><b>Object combinations for alternative uses test suitable for 2-condition within-participant comparisons</b> Ryunosuke Fukada, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Fumiaki Obayashi, Japan</p> <p><b>Illuminating narratives of young wheelchair users: Lived experience insights for framing child-centred inclusive mobility design</b> Cara Shaw, Farnaz Nickpour, UK</p> <p><b>From technologies to positive user experiences in cars: Phase I: Developing a human-centered technology profile as a starting point for innovative solutions</b> Valeria Bopp-Bertenbreiter, Doreen Engelhardt, Lena Rittger, Athina Kalmbach, Harald Widroither, Matthias Peissner, Germany</p> <p><b>A design method of subway public welfare posters based on visual metaphor</b> Chenliang Gong, Wenyi Xu, China</p>	
<b>33</b>	<b>Augmented, Virtual and Mixed Reality Simulation III</b> Co-Chairs: M. Natalia Russi-Vigoya and Laura Stanley, USA	<b>AVM</b>
10:30-12:00 AHFE 3: MILO 3	<p><b>Does Pinocchio get cybersickness? The mitigating effect of a virtual nose on cybersickness</b> Judith Josupeit, Germany</p> <p><b>Virtual reality platform applied to ergonomics teaching</b> Javier Freire, Carla Estrada, Fabiola Maureira, Felipe Meyer, Jorge Espinoza, Kiralina Brito, Chile</p> <p><b>Business automation opportunities to enhance collaboration in automated and virtual environments</b> M. Natalia Russi-Vigoya, Jennifer Hatfield, USA</p> <p><b>The implementation challenges of immersive technologies in transportation simulation</b> Dimitrios Ziakkas, Abner Del Cid Flores, Anastasios Plioutsias, USA/UK</p> <p><b>Development of the model-based planning system for augmented reality in industrial plant maintenance</b> Vadym Bilous, Kirill Sarachuk, Germany</p> <p><b>Developing multimodal food augmentation techniques to enhance satiety</b> Ahmed Farooq, Jussi Rantala, Antti Sand, Natalia Quintero, Mohit Nayak, Jenni Lappi, Nesli Sözer, Roope Raisamo, Finland</p>	

<b>34</b>	<b>Artificial Intelligence and Social Computing III</b> Co-Chairs: Youji Kohda, Japan and Yukun Xia, China	<b>AISC</b>
10:30-12:00 AHFE 4: MILO 4	<p><b>To what extent can AI simplify academic paper writing?</b>                  Youji Kohda, Amna Javed, Japan</p> <p><b>A sample-based method of 3D reconstruction for plant leaf from single image or multiple images</b>                  Jianlun Wang, Deng Huangtianci, Su Rina, Can He, Han Yu, He Jianlei, Hu Baoyue, Chen Husheng, Huang Sheng, Xiao Sirong, Cao Jinduo, China</p> <p><b>Computational creativity: The innovative thinking, practical methods and aesthetic paradigms of AI-driven design</b>                  Yuqi Liu, Tiantian Li, Zhiyong Fu, China</p> <p><b>Applying Ming furniture features to modern furniture design using deep learning</b>                  Yukun Xia, Yingrui Ji, Yan Gan, Zijie Ding, China</p> <p><b>Exploring the digital development path of China's cultural industry empowered by artificial intelligence technology</b>                  Chunxiao Zhu, Yu Cao, Honglei Lu, China</p>	
<b>35</b>	<b>Human-Centered Design III</b> Co-Chairs: Xin Tian and Shasha Li, China	<b>HCD</b>
10:30-12:00 AHFE 5: MILO 5	<p><b>Navigation interface design for agricultural e-commerce: an empirical study</b>                  Shasha Li, Zhongzhen Lin, China</p> <p><b>From concept to framework: Construction of evaluation index framework for intelligent home appliance design under the context of AIGC</b>                  Xin Tian, China</p> <p><b>Legal risks underlying human-computer interface (HCI) Design: A comparative study on Macao vs. major jurisdictions</b>                  Victor K. Y. Chan, Macau SAR China</p> <p><b>Learning through the architectural model: Creativity-inspired design for rural children from the perspective of design anthropology</b>                  Wenqi Shangguan, Duoduo Zhang, China</p> <p><b>Multi-expert cooperative development of painting-themed tourist souvenirs based on ICCO model</b>                  Li Ou-yang, Jie Ling, China</p>	
<b>36</b>	<b>Human-Computer Interaction III</b> Co-Chairs: Chiayin Yang, Taiwan and Kosuke Morinaga, Japan	<b>HCI</b>
10:30-12:00 AHFE 6: MILO 6	<p><b>Social network analysis on the impact of interface design on communication between operators</b>                  Jade Melendez, Roman Bolton, Sophie Hallam, Katie Plant, Craig Allison, Alex Smith, UK</p> <p><b>An investigation into how an integrated user interface and virtual reality affects operator performance when completing submarine control room tasks</b>                  Roman Bolton, Sophie Hallam, Alex Smith, Jade Melendez, Craig Allison, Katie Plant, UK</p> <p><b>Speculate the future roles of design with the changes in the economy, technology, and user generation</b>                  Chiayin Yang, Shin-yu Tsai, Weng-io Chan, Michelle Lin, Hsien-Hui Tang, Taiwan</p> <p><b>Characterization of earplug performance using dummy head microphone measurements</b>                  Kosuke Morinaga, Shigekazu Ishihara, Japan</p> <p><b>Human-centered design research of visualization approaches to health popularization</b>                  Yue Wu, Siqi Zhang, Yuqing Zhang, Yun Chen, China</p>	
REFRESHMENTS: 12:00-12:30 • ROOM: LANAI RECEPTION AREA (LEVEL 2)		

<b>37</b>	<b>Applications of Technologies in Healthcare and Medicine III</b> Co-Chairs: Sergey Drobinsky, Germany and Corey Lester, USA	<b>ATHM</b>
12:30-13:30 AHFE 1: MILO 1	<p><b>Development of a prospective method for rating surgical task workloads</b>                  Sergey Drobinsky, Patrick Korte, Rastislav Pjontek, Armin Janß, Verena Nitsch, Klaus Radermacher, Germany</p> <p><b>Testing the effects of black-box and uncertain ai advice on pharmacist work verifying prescription medications</b>                  Corey Lester, Jin Yong Kim, Brigid Rowell, Vincent Marshall, Qiyuan Chen, Raed Al Kontar, X. Jessie Yang, USA</p> <p><b>The Smart Cane Project: Integrating screen interfaces and physiological sensors into mobility devices</b>                  Ian Gonsler, Adriana C. S. Coariti, Shrey Mehta, Samantha Shulman, Nicholas Gaitanis, Arshiya Khosla, Denise Danielle Tamesis, Adriana Salazar Coariti, Jieliyue Sun, USA</p> <p><b>Differences in eye movements in chest X-ray diagnosis and exploration of effective diagnostic strategies: A study in annual medical checkup conditions</b>                  Yijia Wang, Hirotaka Aoki, Koji Morishita, Marie Takahashi, Rea Machida, Atsushi Kudoh, Mitsuhiro Kishino, Tsuyoshi Shirai, Japan</p> <p><b>Behavior-based understanding of elderly people with dementia: A hierarchical classification of daily object use</b>                  Natsuki Shimada, Kota Noto, Koji Kitamura, Yoshihumi Nishida, Japan</p> <p><b>Application of haptic augmentation in laparoscopic surgery</b>                  Caroline Cao, Kara Wilcox, France</p>	
<b>38</b>	<b>Emerging Technologies in Healthcare and Medicine II</b> Co-Chairs: Eunji Lee, Sweden and Shigekazu Ishihara, Japan	<b>ATHM</b>
12:30-13:30 AHFE 2: MILO 2	<p><b>Transforming the homecare offering scene: How the technology plays a role</b>                  Eunji Lee, Sweden</p> <p><b>Improving comfort of shoulder and back health in children's school bags: Examining damper shoulder straps and ergonomic factors</b>                  Shigekazu Ishihara, Shuichi Konno, Nobutaka Takeda, Japan</p> <p><b>Tiny titans: Acceptance of in-vivo capsule and micro robots in healthcare innovation</b>                  Kerstin Haring, Claudia Ossola-Haring, Andreas Schlageter, Markus Gress-Heister, Joachim Woelle, USA</p> <p><b>Ethics meets design: How agential and epistemic dimensions in human-machine-interaction shape the design of (using) medical algorithms</b>                  Andreas Wolkenstein, Germany</p> <p><b>Early characterization of stroke using video analysis and machine learning</b>                  Hoor Jalo, Andrei Borg, Elsa Thoreström, Marcus Lorentzon, Oskar Tryggvasson, Nathalie Larsson, Viktor Johansson, Petra Redfors, Bengt Arne Sjöqvist, Stefan Candefjord, Sweden</p> <p><b>Impact of multiple study abroad experiences by Japanese medical trainees on humanism</b>                  Chihiro Tajima, Japan</p>	
<b>39</b>	<b>Application of Emerging Technologies: Service and Manufacturing Industries III</b> Co-Chairs: Sandra Frings, Germany and Kyungkyu Kim, South Korea	<b>AET</b>
12:30-13:30 AHFE 3: MILO 3	<p><b>Leveraging computer vision for sustainable manufacturing: Potentials, challenges and future perspectives</b>                  Safa Omri, Dharmil Mehta, Jens Neuhüttler, Germany</p> <p><b>Online anonymity and argument quality in online communities</b>                  Kyungkyu Kim, Ae Ri Lee, Heeseok Yang, South Korea</p> <p><b>Applicability of the thank you exchange system to employee evaluation and how to apply it to external organizations</b>                  Kiyoshi Kurakawa, Masakazu Furuichi, Japan</p> <p><b>Towards a vision and essential steps in the digital transformation of product service systems: A scenario based approach</b>                  Sandra Frings, Holger Kett, Germany</p> <p><b>Relationship of internal communication with the organizational development of a non-profit company. Peru Case</b>                  Madeleine Espino, Luis Dávila, Danicsa Espino, Edson David Valdera Benavides, Rafael Martel Acosta, Claudia Arbañil Chicoma, Mayury Espino Carrasco, Royer Vasquez Cachay, Senaida Milagros Guevara Cruzado, Anny Katherine Dávila Valdera, Lady Violeta Dávila Valdera, Peru</p> <p><b>Analysis of agglomeration characteristics of public service facilities in mountainous villages and towns based on POI data</b>                  Peng Liu, Yi Wang, China</p>	

<p><b>40</b></p>	<p><b>Application of Emerging Technologies: Transportation Research III</b>                  Co-Chairs: Lisa Loloma Froholdt, Denmark and Frank Rister, Germany</p>	<p><b>AET</b></p>
	<p>12:30-13:30                  AHFE 4: MILO 4</p>	<p><b>The effects of dedicated right-turn lanes on driver behavior and pedestrian safety</b>                  Curtis Craig, Nichole Morris, Marshall Mabry, USA</p> <p><b>The role of VTS operators in new maritime safety situations: When conventional and autonomous ships meet</b>                  Michael Baldauf, Momoko Kitada, Lisa Loloma Froholdt, Germany/Denmark</p> <p><b>Urban strategies for pedestrian-centered public space infrastructure: Case study of Virgen de Fatima parish, Yaguachi, Ecuador</b>                  Freddy Guerrero, Laura de Jesús Calero Proaño, Jose Torrech, Jesús Rafael Hechavarría Hernández, Hermes Viloria, Ecuador</p> <p><b>Flight training research paving the path for future eVTOL pilots</b>                  Frank Rister, Nils Bartling, Germany</p> <p><b>A full-factorial analysis of combined vehicle motion profiles on cross-coupled coriolis effect, subjective vertical and motion sickness incidence</b>                  Oliver Trepping, Kevin Schuler, Philipp Rupp, Bernhard Schick, Germany</p> <p><b>Sustainable operation system for space debris management</b>                  Janne Heilala, Finland</p>
<p><b>41</b></p>	<p><b>Design Applications and User Experience III</b>                  Co-Chairs: Pascal Snow, Canada and Fady Youssef, Germany</p>	<p><b>HCI</b></p>
	<p>12:30-13:30                  AHFE 5: MILO 5</p>	<p><b>Remote haptics: Introduction to a touchless remote inspection system for industrial experts</b>                  Fady Youssef, Thorsten A. Kern, Germany</p> <p><b>A digital platform for respiratory rehabilitation in patients with post-COVID19: Design and usability evaluation</b>                  Marco Santórum, Mayra Carrión, Patricia Acosta-Vargas, David Morales-Martinez, Julian Galindo-Iosada, Camila Madera, Gloria Acosta-Vargas, Verónica-Gabriela Maldonado-Garcés, Manuel Ayala-Chauvin, Mario Gonzalez, Esteban Ortiz Prado, Ecuador</p> <p><b>Advancing web accessibility: Evaluating and analyzing an educational platform for respiratory therapies</b>                  Patricia Acosta-Vargas, Gloria Acosta-Vargas, Mayra Carrión, Marco Santórum, Manuel Ayala-Chauvin, Esteban Ortiz Prado, Verónica-Gabriela Maldonado-Garcés, Wilmer Esparza, Camila Madera, Mario Gonzalez, Ecuador</p> <p><b>Exploring fear and hesitancy among machine tool operators - A socio-technical approach on enhancing machine tool usability from a developer, educator and user perspective</b>                  Luisa Lange, Sonja Buxbaum Conradi, Tobias Redlich, Jens P Wulfsberg, Germany</p> <p><b>Fault detection and estimation of a lithium-ion battery system using an adaptive observer</b>                  Norbert Kukurowski, Marcin Mrugalski, Marcin Witczak, Justyna Patalas - Maliszewska, Poland</p> <p><b>Reframing implicit measures in user testing: Supporting performance outcomes and empathy with visualized emotional trends</b>                  Pascal Snow, Pierre-majorique Léger, Sylvain Sénécal, Romain Pourchon, Sarah Cosby, Danya Swoboda, Ariane Beauchesne, Frédérique Bouvier, Barbara Scheed, Canada</p>
<p><b>42</b></p>	<p><b>Artificial Intelligence and Social Computing IV</b>                  Co-Chairs: Valeria Lopez Torres, USA and Jonas Cieply, Germany</p>	<p><b>AISC</b></p>
	<p>12:30-13:30                  AHFE 6: MILO 6</p>	<p><b>A method to generate adversarial examples based on color variety of adjacent pixels</b>                  Tomoki Kamegawa, Masaomi Kimura, Imam Mukhlash, Mohammad Iqbal, Japan</p> <p><b>Integrating domain expertise and artificial intelligence for effective supply chain management planning tasks: A collaborative approach</b>                  Jonas Lick, Benedict Wohlers, Philipp Sahrhage, Felix Schreckenberger, Susanne Klöckner, Sebastian Von Enzberg, Arno Kühn, Roman Dumitrescu, Germany</p> <p><b>User trust towards an AI-assisted healthcare decision support system under varied explanation formats and expert opinions</b>                  Da Tao, Zehua Liu, Tingru Zhang, Chengxiang Liu, Tieyan Wan, China</p> <p><b>Prompts of large language model for commanding power grid operation</b>                  Hanjiang Dong, Jizhong Zhu, Chi-yung Chung, Hong Kong SAR China</p> <p><b>Before and after lockdown: A longitudinal study of long-term human-AI relationships</b>                  Valeria Lopez Torres, USA</p> <p><b>Context matters: The value of (and need for) context-specificity in ML-based EdTech</b>                  Zach Anthis, UK</p>

<b>43</b>	<b>Human-Centered Design IV</b> Co-Chairs: Chiho Sasaki, Japan and Sauman Chu, USA	<b>HCD</b>
13:30-14:30 AHFE 1: MILO 1	<p><b>Avatar design focusing on kawaii motions</b> Teru Kawakita, Takuichi Nishimura, Japan</p> <p><b>A patient-centered approach in designing a kidney transplant decision aid</b> Sauman Chu, Marilyn Bruin, Allyson Hart, USA</p> <p><b>Simulation and design of mechanical interfaces between human and cobot</b> Cesare Fantuzzi, Italy</p> <p><b>Shoe-based interface promoting instinctive avoidance behavior in poor visibility conditions utilizing aversive behavior</b> Hikaru Mito, Daigo Misaki, Japan</p> <p><b>Design puzzibility: Design idea exploration based on design puzzles with deep learning</b> Ching-Chih Chang, Tang-Wen Chang, Taiwan</p> <p><b>Multicriteria analysis for the design of interactive public spaces as potential catalysts for local development in Guayaquil</b> Bryan Colorado, Christian Zambrano, Lileana Saavedra Robles, Juan Briones, Rommy Torres, Ecuador</p>	
	<b>44</b>	<b>Applications of Technologies in Healthcare and Medicine IV</b> Co-Chairs: Taisei Kondo, Japan and Raymond Freth Lagria, Philippines
13:30-14:30 AHFE 2: MILO 2	<p><b>Life history support system “LHS” - recording memories and sharing stories for family social network</b> Taisei Kondo, Takako Sinzi, Megumi Aibara, Kiyoshi Kurakawa, Kazumi Sekiguchi, Atsushi Kobayashi, Aiko Takazawa, Masakazu Furuichi, Japan</p> <p><b>Development of an ontology that connects clinical psychology knowledge and top ontology</b> Chiaki Oshiyama, Takuichi Nishimura, Japan</p> <p><b>Incident response exercises and methodologies to guide best practices for incident response in healthcare institutions</b> Kenta Nakayama, Japan</p> <p><b>Exploring the potential of human-centered design combined with narrative medicine theory for children-friendly healing environment design</b> Jinghao Hei, Jing Liang, China</p> <p><b>Generation of user requirements for a mental health mobile application from an online public forum: A topic modelling approach</b> Raymond Freth Lagria, Lorelie Grepo, Joy Ann Malapit, Philippines</p> <p><b>Safe patient handling and mobility programs for overweight and obese patients: A cross-sectional survey</b> Menekse Barim, Marie A. Hayden, Edward Krieg, Jr., H. Amy Feng, USA</p>	
	<b>45</b>	<b>Application of Emerging Technologies: Transportation Research IV</b> Co-Chairs: Josephine Halama, Germany and Megan Mitchell, USA
13:30-14:30 AHFE 3: MILO 3	<p><b>The comparative hazards and benefits of EFBs and paper documents in the cockpit 2016 - 2022</b> Megan Mitchell, Thomas Strybel, Vernol Battiste, USA</p> <p><b>The effects of type of road and driver personality on drivers’ automation use: An on the road study with Tesla’s autopilot</b> Josephine Halama, Manfred Thüring, Stefan Brandenburg, Germany</p> <p><b>The roles of driving style and initial trust on trust towards automated vehicles</b> Milei Chen, Weixing Huang, Tingru Zhang, China</p> <p><b>Investigating challenges in decision support systems for energy-efficient ship operation: a transdisciplinary design research approach</b> Benjamin Schwarz, Mourad Zoubir, Jan Heidinger, Marthe Gruner, Hans-Christian Jetter, Thomas Franke, Germany</p> <p><b>Emerging technologies in transportation: The simulated air traffic control environment (SATCE) case study</b> Dimitrios Ziakkas, Neil Waterman, USA</p>	

<p><b>46</b></p>	<p><b>Artificial Intelligence and Social Computing V</b> Co-Chairs: David Wallstén, Sweden and Frank Wawrzik, Germany</p>	<p>AISC</p>
<p>13:30-14:30 AHFE 4: MILO 4</p>	<p><b>Design for integrating explainable AI for dynamic risk prediction in prehospital IT-systems</b> David Wallstén, Gregory Axton, Anna Bakidou, Eunji Lee, Bengt Arne Sjöqvist, Stefan Candefjord, Sweden</p> <p><b>AI-enabled semantic modeling for enhanced Boardnet integration in automotive design</b> Frank Wawrzik, Johannes Koch, Sebastian Post, Christoph Grimm, Germany</p> <p><b>Auto3DBuilder: An automatic 3D building modeling tool from 2D drawings</b> Amartuvshin Narangerel, Minjin Myagmarjav, Woong Hee Lee, Dongwoo Lee, South Korea</p> <p><b>Analysing the effectiveness of a generative adversarial network model for the creation of new datasets of 3D human body and garment sizes in the clothing industry</b> Nga Yin Dik, Wai Kei Tsang, Ah Pun Chan, Kwan Yu Lo, Hong Kong SAR China</p> <p><b>The impact of AI transparency and reliability on human-AI collaborative decision-making</b> Xujinfeng Wang, Yicheng Yang, Da Tao, Tingru Zhang, China</p>	
<p><b>47</b></p>	<p><b>Human-Centered Design V</b> Co-Chairs: Earl Huff, USA and Jie Ma, China</p>	<p>HCD</p>
<p>13:30-14:30 AHFE 5: MILO 5</p>	<p><b>The design of three-phase mixed reality system for UAV's Operator Training</b> Antoni Kopyt, Poland</p> <p><b>Accessible E-learning through story-based participatory design for persons with vision impairments</b> Earl Huff, USA</p> <p><b>Community walking system design from a co-creation perspective: The example of Hongqiao Airport New Village</b> Jie Ma, Linghao Zhang, China</p> <p><b>Human-centered design investigation and development of Chinese young women's daily mobility safety</b> Shuhan Zhang, Chen Xu, Yun Chen, China</p> <p><b>Human centered design: User-independence in recycling by visually impaired persons</b> Kin Wai Michael Siu, Hong Kong SAR China</p>	
<p><b>48</b></p>	<p><b>Artificial Intelligence and Social Computing VI</b> Co-Chairs: Rhyse Bendell, USA and Dominique Bohrmann, Germany</p>	<p>AISC</p>
<p>13:30-14:30 AHFE 6: MILO 6</p>	<p><b>Interventions by artificial socially intelligent agents in collaborative environments: Impacts on team performance and knowledge externalization</b> Rhyse Bendell, Jessica Williams, Stephen Fiore, Florian Jentsch, USA</p> <p><b>Artificial social intelligence in action: Lessons learned from human-agent hybrid search and rescue</b> Jessica Williams, Rhyse Bendell, Stephen Fiore, Florian Jentsch, USA</p> <p><b>Design process with generative AI and thinking methods: Divergence of ideas using the fishbone diagram method</b> Yuhi Maeda, Jun'ichi Ito, Keita Kado, Japan</p> <p><b>FlexiTeams – An interactive visual representation of ai-based knowledge to reorganize operational teams in crises</b> Dominique Bohrmann, Moritz Gobbert, Germany</p> <p><b>The consistency between popular generative artificial intelligence (AI) robots in evaluating the user experience of mobile device operating systems</b> Victor K. Y. Chan, Macau SAR China</p>	

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, TUESDAY, DECEMBER 5, 2023

Time: 10:00-14:00 (HST)

Room: Lanai Reception Area (Level 2)

Virtual Room: AHFE Posters

- A1. Loss of concentration delays Kana-Kanji conversion confirmation  
Ryosuke Saeki, Takeshi Hayashi, Kinya Fujita, Japan
- A2. Generative AI wearable assistant for simulated reach-back support  
Michael Jenkins, Calvin Leather, Sean Kelly, Richard Stone, USA
- A3. Expressing emotion in artificial speech for more natural human-robot interaction using Sentence-BERT  
Nobuhito Manome, Shunji Mitsuyoshi, Ung-il Chung, Japan
- A4. Innovative indoor navigation and route guidance solutions for first responders  
John McIntire, Haythem Mansour, Nadeen Sawaqed, Luke Schwab, Eduard Jauregui, Felicia Reinhart, Enoch May, USA
- A5. Evaluation of unpleasant green environment based on biological reaction and contingent valuation  
Masayoshi Tanishita, Michiko Ohkura, Japan
- A6. Driver attribute classification method based on driving behavior  
Kimihiro Yamanaka, Japan
- A7. Human-animal teaming as a model for human-AI-robot teaming: Advantages and challenges  
Heather Lum, USA
- A8. Design of new routing algorithm and embedding for hierarchical hypercube networks  
Hyeongok Lee, South Korea
- A9. Single-person household satisfaction of personal spaces in shared houses  
Yeonsook Hwang, Yujin Kim, Danqiong Liu, South Korea
- A10. Antimicrobial treatments of undergarments designed for the combat-protective clothing of soldiers  
Alina Vladu, Emilia Visileanu, Alina Popescu, Roxana Rodica Constantinescu, Romania
- A11. Development of EYES: A simulator to experience cataract and ICL Surgery  
Masakazu Furuichi, Japan
- A12. Prototyping of the experimental lifting parachute system  
Alexandra Gabriela Ene, Carmen Mihai, Constantin Jomir, Romania
- A13. Exploring human-like behavior explanation on AI speaker recognition as communicable partners across age groups  
Yukiko Nishizaki, Takumi Uchitani, Japan
- A14. Designing a learning history storing framework with blockchain technology for against multi hazards  
Satoshi Togawa, Akiko Kondo, Kazuhide Kanenishi, Japan
- A15. The effect of screen segmentation methods on visual search performance in virtual reality  
Wenhao Fang, Mian Yan, Alex Pak Ki Kwok, Mingxing Li, China
- A16. The cultural center in San Juan del Río, Querétaro: Strengthening and recovering identity  
Selene Margarita Vazquez Soto, Jessica Garcia, Miguel Angel Cruz Domínguez Hernández, Mexico
- A17. Cyber physical mockup technology at upstream stage of design process  
Ayako Masuno, Tamotsu Murakami, Japan
- A18. Exploring anime character image generation based on user preferences  
Mitsuhiro Hayase, Japan
- A19. Evaluation and validation of emotional expression mimicry tasks for highly sensitive person assessment  
Yuuna Ishikami, Hisaya Tanaka, Japan
- A20. Continuous personal monitoring and individualized hydration recommendations with biometric wearables to prevent occupational heat stress  
Benjamin Woodrow, Michelle Stewart, Michael Wasik, Andrea Tineo, USA
- A21. Low-code development platform for modeling and implementation of business processes to support outbreak investigations  
Robert Waszkowski, Tadeusz Nowicki, Poland

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, TUESDAY, DECEMBER 5, 2023

Time: 10:00-14:00 (HST)

Room: Lanai Reception Area (Level 2)

Virtual Room: AHFE Posters

- A22. Longitudinal study of communication in nursing organization using wearable sensors  
Yuki Mizuno, Motoki Mizuno, Yasuyuki Yamada, Yasuyuki Hochi, Takumi Iwaasa, Kentaro Inaba, Emiko Togashi, Yumi Arai, Hidenori Hayashi, Japan
- A23. A method for measuring flow state using EEG in monotonous task  
Chika Furuta, Tessho Ura, Kazutaka Ueda, Nodoka Yamada, Ai Ito, Yasunori Hama, Keisuke Nagato, Masayuki Nakao, Japan
- A24. Usability of booking a flight ticket using airline applications on smartphones  
Emiri Otsuka, Namgyu Kang, Japan
- A25. Evaluating the efficacy of extended reality in aviation maintenance training: A comparative study of video demonstrations, VR, and AR simulations  
Kapil Chalil Madathil, Anand Gramopadhye, Jeffrey Bertrand, Gayatri Anoop, Arvind Kolangarakath, USA
- A26. Improving sustainable production in the context of Industry 4.0 technologies adoption - Evidence from metalworking Industry  
Justyna Patalas-Maliszewska, Marcin Mrugalski, Poland
- A27. Exploring generative AI as a proxy user for early stage user research - Preliminary findings  
Michael Jenkins, Caroline Kingsley, Elizabeth Thiry, Sean Kelly, USA
- A28. Comprehensive analysis for application of speed-reduction pavement markings on urban roads  
Nuri Park, Juneyoung Park, South Korea
- A29. Exploring human autonomy teaming methods in challenging environments: The case of uncrewed system (UxS) solutions – challenges and opportunities (with AI)  
Rune Stensrud, Sigmund Valaker, Olav Rune Nummedal, Norway
- A30. Small UXS-Squad teaming: Military operational use cases  
Michael Jenkins, Caroline Kingsley, Richard Stone, Sean Kelly, USA
- A31. Design application of solar backpack for African rural area students  
Said Youssouf Kadafi, Hui Lyu, Tebello Pusetso, Zhang Xusheng, China
- A32. MAVIC - Machine AI for visual information communication in wearables  
Calvn Leather, Michael Jenkins, Sean Kelly, USA
- A33. Method for measurement of color vision deficiencies based on SSVEP  
Hisaya Tanaka, Maho Kanda, Sodai Kondo, Japan
- A34. Empirical analysis of social implications during the development of automated driving  
Nuria Brüggemann, Sebastian Preis, Anne Pagenkopf, Arnd Engeln, Germany
- A35. Optimization for thermal protection of firefighter's gloves by phase change material  
Susan Xu, Jonisha Pollard, Weihuan Zhao, USA
- A36. Attentional processing: A preliminary investigation relating attentional blink, attention control and motivation  
Noelle Brown, Shannon McGarry, Allison Bayro, Joseph Coyne, Mikaela Aiken, Kaylin Strong, Ciara Sibley, Cyrus Foroughi, USA
- A37. Assessment of visual discomfort during watching 3D and 2D televisions using electroencephalography analysis  
Tiantian Liu, China
- A38. Identifying key human factors when deploying transparent and reproducible AI discovery pipelines  
Victoria Stodden, Yantong Zheng, USA

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, WEDNESDAY, DECEMBER 6, 2023

Time: 10:00-14:00 (HST)

Room: Lanai Reception Area (Level 2)

Virtual Room: AHFE Posters

- B1. Workload analysis of courier trolley push and pull for express couriers  
Hong-in Cheng, Jun Jie Deng, South Korea
- B2. Verification of the effects of exercise on the body and mind using a boxing glove-type sensory augmentation device  
Yurie Kondo, Shima Okada, Masanobu Manno, Yusuke Sakaue, Masaaki Makikawa, Japan
- B3. Non-contact sleep stage estimation using wireless millimetre-wave sensor  
Ozaki Shun, Shima Okada, Masaaki Makikawa, Masanobu Manno, Yusuke Sakaue, Japan
- B4. Development of participatory action-oriented training program for improvement of safe, move, info, link, and environment (SMILE) in sporting events  
Yasuyuki Yamada, Kazuhiro Aoki, Atsushi Kubota, Motoki Mizuno, Koya Suzuki, Ko Yamanaka, Takuya Tanaka, Sora Watabe, Motoko Kai, Wei Guo, Toyoki Nakao, Toru Yoshikawa, Etsuko Yoshikawa, Takashi Toriizuka, Yuriko Takeuchi, Kazutaka Kogi, Natsuki Morita, Yasutaka Yamamoto, Kasane Ogura, Daichi Suzuki, Hidefumi Waki, Japan
- B5. Data-driven transportation decisions using performance measures – an assessment of Louisiana's freight operations goals  
Julius Codjoe, USA
- B6. Mind the gap: Between creativity research and engineering design  
Fukashi Mikami, Koji koizumi, Kazutaka Ueda, Masayuki Nakao, Japan
- B7. ThyroPIX - New generation gamma camera for thyroid gland and small organs imaging in nuclear medicine  
Ludek Sefc, Richard Kaderabek, Tereza Kracmerova, Jan Jakubek, Viktor Sykora, Czech Republic
- B8. Harnessing online-delivered cognitive behavioral therapy and exercise in preventive mental healthcare  
Matthew Thiese, USA
- B9. iBODY: Human body shape reconstruction by using multiple depth cameras  
Yui Endo, Kazuto Hayashi, Japan
- B10. Simulation studies in a low-code development platform for improving the flow of internal electronic documents  
Agata Chodowska Wasilewska, Tadeusz Nowicki, Robert Waszkowski, Poland
- B11. Assessment of fitness to drive in elderly and cognitively impaired drivers: Adaptation of the driving observation schedule to simulated environments  
Carolina Díaz Piedra, Giulia De Cet, Alban Kuqi, M Jesus Caurcel, Rocio Fernandez- Mendez, Riccardo Rossi, Leandro Luigi Di Stasi, Spain
- B12. Influence of letter design elements in transparent package for tomatoes on consumer Kansei  
Hiro Hiyama, Tomoharu Ishikawa, Kakeru Shono, Miyoshi Ayama, Japan
- B13. Breaking the silence: Unveiling the power of compassionate leadership on employee silence  
Vinzenc Krause, Célia Rousset, Ina Steinmueller, Germany
- B14. Impact of buried persons and hidden voids on GPR performance in building collapsed structures  
Seungeon Song, Bongseok Kim, Sangdong Kim, Jonghun Lee, South Korea
- B15. How user research helped productize the dynamic dimming(TM) feature on Magic Leap 2  
John Hwong, USA
- B16. Trial of efficient knowledge extension method for innovative design ideation  
Yuzuki Toyama, Tamotsu Murakami, Japan
- B17. IEQ visual data to building occupants for personal control of indoor environmental quality  
Jeehwan Lee, Sanghyun Lee, South Korea
- B18. Virtual experience and training environments for individuals with cognitive decline: Project SmartAktiv  
Sandra Schuessler, Lucas Paletta, Anna Schultz, Amir Dini, Amadeus Linzer, Ursula Berger, Wolfgang Kratky, Marisa Koini, Martin Pszeida, Judith Goldgruber, Michael Schneeberger, Sandra Draxler, Silvia Russegger, Thomas Orgel, Wolfgang Weiss, Austria

# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS, WEDNESDAY, DECEMBER 6, 2023

Time: 10:00-14:00 (HST)

Room: Lanai Reception Area (Level 2)

Virtual Room: AHFE Posters

- B19. Exploring the influencing factors of personal loyalty to Health Passbook: Extending the perspective of consumption values  
Pi-jung Hsieh, Hui-min Lai, Yung-ching Yang, Taiwan
- B20. Organizational climate for health to enhance psychological safety in nursing organizations  
Yuki Mizuno, Motoki Mizuno, Yasuyuki Yamada, Yasuyuki Hochi, Takumi Iwaasa, Kentaro Inaba, Emiko Togashi, Yumi Arai, Japan
- B21. Haptic feedback in virtual reality: A potential tool for facilitation of performance, mitigation of workload, and enhancement of motivation  
Destiny Gough, USA
- B22. Immersive Technology for Mental Health Interventions  
Laura Stanley, USA
- B23. The impact of AI on business ecosystem development: Pro and contra  
Olga Shvetsova, South Korea
- B24. Assessing changes in team dynamics around mission critical events using multimodal data  
Michael Tolston, Simon Hosking, Melissa Stolar, Gregory Funke, USA
- B25. Job tasks related to psychological stressors and musculoskeletal disorders among firefighters and police officers  
Matthew Thiese, Uchenna Ogbonnaya, USA
- B26. Generalized eye tracking metrics (GEMs): An initial development of a practitioner's guide to eye tracking  
Lauren Horde, Shannon McGarry, Noelle Brown, Cyrus Foroughi, Ciara Sibley, Joseph Coyne, USA
- B27. Internet of toys for measuring development of drawing skills in support of childcare workers  
Keiko Yamamoto, Taichi Fujihara, Ichi Kanaya, Japan
- B28. Characteristics of cerebral blood flow during working memory tasks - Comparison of the follicular and luteal phases in females and males  
Makiko Aoki, Satoshi Suzuki, Japan
- B29. Investigating the interactions between connected and autonomous vehicles and vulnerable road users in the transportation ecosystems  
Yujie Li, Samuel Labi, USA
- B30. Degradation in dynamic color discrimination with waveguide-based augmented reality displays  
Adrian Flowers, Arthur Wollocko, Caroline Kingsley, Elizabeth Thiry, Michael Jenkins, USA
- B31. VR fractal healing design based on self-similarity theory  
Huiyan Chen, China
- B32. Applying human factors principles and analyses to design an instructional display for dynamic breathing threat training  
Beth Atkinson, Emily Anania, Mitchell Tindall, Ryan Wohleber, Daniel Barber, Alicia Jordan, Jamie Lewis, Tyler Welden, USA
- B33. Developing wrong-way driving warning information system based on preferences and behaviors of drivers  
Hojae Kim, Juneyoung Park, South Korea
- B34. Satellite-assisted continuous roving unmanned IoT/RF sensor enhanced robot (SATCRUISER) for AI data generation - Preliminary findings  
Michael Jenkins, Calvin Leather, Sean Kelly, USA
- B35. Degradation in dynamic visual perception with waveguide-based augmented reality displays  
Adrian Flowers, Arthur Wollocko, Caroline Kingsley, Elizabeth Thiry, Michael Jenkins, USA
- B36. A human-centered approach to artificial intelligence applications in naval aviation  
Mitchell Tindall, Beth Atkinson, Jordan Sanders, Sarah Beadle, James Pharmer, USA
- B37. Correlation between the need for cognition (NFC) score and future prediction probability when confronted with biased information: An ISR assessment  
Justin Nelson, USA
- B38. Exploring the user's perception of updates in intelligent systems  
Youyu Sheng, Jingyu Zhang, China



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