



# 2023 IHSI International

6<sup>th</sup> International Conference on  
**Intelligent Human Systems Integration:**  
Integrating People and Intelligent Systems

# Final Program

## February 22-24, 2023



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# Opening Plenary Session and Keynote Address

Date: February 22 • 13:30-15:00

Location: Università Iuav di Venezia (IUAV)  
Calle de la Laca, 2468, 30125 Venezia VE, Italy (Lobby Level)

**Speaker:** Prof. Matteo Zallio, University of Cambridge and Autodesk

**Keynote Title:** The Metavethics - Ethical, integrity and Social Implications of the Metaverse

Forecasts predict that by 2026 a quarter of the population will spend at least an hour a day in the Metaverse or digital virtual environments. Currently, several tech companies are trying to understand how to design an entirely new immersive world, but when considering attitudinal, behavioral and social aspects of human diversity it is logical to ask how the Metaverse could be truly designed by people, with people and for people?



There is no doubt that we are living in the immersive technology renaissance era, however how can we maximize this opportunity, by learning from what we have developed in the past with other technologies?

With the Metaverse we are at a different point in history than when we created the Internet.

We now have more knowledge of Inclusive Design, more understanding of DEI and ethics and integrity practices, and more accessibility standards and policies; therefore, businesses have no excuses for not designing a Metaverse and its technologies to be truly inclusive, accessible, and safe from the very start.

As the society is rapidly moving towards addressing the United Nations Sustainable Development Goals for all human beings, safety, inclusion, diversity, equity, and accessibility are becoming fundamental pillars upon which develop the Metaverse and digital, virtual environments.

**About the Speaker:** Matteo Zallio, M.Arch, PhD, is on a mission to make emergent technologies accessible and inclusive for all. Matteo is an award-winning designer, researcher, and professor. He has a unique background in helping businesses to develop futuristic technologies that are inclusive and consider different aspects of human diversity such as ability, language, culture, gender, and age. He is a Senior researcher at Autodesk and Senior research associate at the University of Cambridge, chairman at the National Standards Authority of Ireland, previously Fulbright fellow at Stanford University and an A. Graves fellow at Technological University Dublin. Along his academic and business roles he is constantly involved as a mentor for businesses and start-ups, as member of scientific committees at international conferences, and in his free time you can find him advocating about Inclusive Design.

Conference Reception and Banquet

February 22, 18:30 - 22:00 (CET)

**CHC Continental Hotel, BW Premier Collection**

Address: Rio Terà Lista di Spagna, 170a, 30121 Venezia VE, Italy

# Conference Organization

## GENERAL CONFERENCE CHAIRS

Waldemar Karwowski and Tareq Ahram

## ORGANIZING CONFERENCE CO-CHAIRS

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## TECHNICAL PROGRAM CHAIRS

### IHSI 1: AUTOMOTIVE DESIGN AND TRANSPORTATION ENGINEERING

Chair: Alberto Vergnano (University of Modena and Reggio Emilia), Italy

### IHSI 2: HUMANS AND ARTIFICIAL COGNITIVE SYSTEMS

Chair: Darko Etinger (Juraj Dobrila University of Pula), Croatia

### IHSI 3: INTELLIGENCE TECHNOLOGY AND ANALYTICS

Chair: Tihomir Dovramadjiev (Technical University of Varna), Bulgaria

### IHSI 4: COMPUTATIONAL MODELING AND SIMULATION

Chair: Darko Etinger (Juraj Dobrila University of Pula), Croatia

### IHSI 5: HUMANS AND ARTIFICIAL SYSTEMS COMPLEXITY

Chair: Waldemar Karwowski (UCF), USA

### IHSI 6: SMART MATERIALS AND INCLUSIVE HUMAN SYSTEMS

Chair: Stefania Camplone (University of Chieti-Pescara), Italy

### IHSI 7: HUMAN-AUTONOMY TEAMING

Chair: Axel Schulte (Universität der Bundeswehr München), Germany

### IHSI 8: APPLICATIONS AND FUTURE TRENDS

Chair: Giuseppe Di Bucchianico (University of Chieti-Pescara), Italy

ACRONYM	TRACK
IHSI 1	Automotive Design and Transportation Engineering
IHSI 2	Humans and Artificial Cognitive Systems
IHSI 3	Intelligence Technology and Analytics
IHSI 4	Computational Modeling and Simulation
IHSI 5	Humans and Artificial Systems Complexity
IHSI 6	Smart Materials and Inclusive Human Systems
IHSI 7	Human-Autonomy Teaming
IHSI 8	Applications and Future Trends

# Conference at a Glance

Conference program schedule is listed in  
Central European Standard Time (CET) - Venice Timezone

**Thursday, Feb 23**

#	TITLE	ROOM	TRACK
<b>Session Time: 9:00-10:30 (CET)</b>			
1	Automotive Design and Transportation Engineering	Roma	IHSI 1
2	Humans and Artificial Cognitive Systems I	Milan	IHSI 2
3	Intelligence, Technology and Analytics I	Palermo	IHSI 3
<b>10:30-11:00 • Sessions Break</b>			
<b>Session Time: 11:00 - 12:30</b>			
5	Humans and Artificial Systems Complexity I	Roma	IHSI 5
6	Social Inclusion and Integrated Technological Smart Systems	Milan	IHSI 6
7	Human-Autonomy Teaming I	Palermo	IHSI 1
<b>12:30 - 13:30 • Sessions Break</b>			
<b>Session Time: 13:30 -15:00</b>			
8	Applications and Future Trends I	Roma	IHSI 8
9	Automotive Design and Transportation Engineering II	Milan	IHSI 1
10	Humans and Artificial Cognitive Systems II	Palermo	IHSI 2
<b>15:00 - 15:30 • Sessions Break</b>			

**Friday, Feb 24**

#	TITLE	ROOM	TRACK
<b>Session Time: 9:00-10:30 (CET)</b>			
11	Intelligence, Technology and Analytics II	Roma	IHSI 3
12	Humans and Artificial Systems Complexity II	Milan	IHSI 5
14	Applications and Future Trends II	Palermo	IHSI 8
<b>10:30-11:00 • Sessions Break</b>			
<b>Session Time: 11:00 - 12:30</b>			
15	Humans and Artificial Cognitive Systems III	Roma	IHSI 2
16	Applications and Future Trends III	Milan	IHSI 8
17	Humans and Artificial Cognitive Systems IV	Palermo	IHSI 2
<b>12:30 - 13:30 • Sessions Break</b>			
<b>Session Time: 13:30 -15:00</b>			
18	Applications and Future Trends IV	Roma	IHSI 8
19	Applications and Future Trends V	Milan	IHSI 8
20	Applications and Future Trends VI	Palermo	IHSI 8
<b>15:00 - 15:30 • Sessions Break</b>			

<b>1</b>	<b>Automotive Design and Transportation Engineering</b> Session Chair(s): Ahmed Farooq, Finland and Duc Hai Le, Germany	<b>IHSI 1</b>
9:00 - 10:30 - ROMA	<p><b>When do People Expect Effortless In-Car Interactions?</b>                      Ecem Ince, Kyungjoo Cha, Junghyun Cho, United Kingdom</p> <p><b>Comparing Electrostatic and Vibrotactile Feedback for In-Car Touchscreen Interaction using common User Interface Controls</b>                      Ahmed Farooq, Roope Raisamo, Jani Lylykangas, Oleg Spakov, Veikko Surakka, Finland</p> <p><b>Involving users in Automotive HMI design: Design evaluation of an interactive simulation based on participatory design</b>                      Duc Hai Le, Klas Ihme, Frank Köster, Germany</p> <p><b>Exploring remote operation of heavy vehicles – findings from a simulator study</b>                      Jonas Andersson, Daban Rizgary, Mikael Söderman, Johanna Vännström, Sweden</p> <p><b>A design approach of proactive HMI based on smart interaction</b>                      Xiaohua Sun, Jinglu Li, Weiwei Guo, China</p>	
<b>2</b>	<b>Humans and Artificial Cognitive Systems I</b> Session Chair(s): Sarah Mandl, Germany and Kimi Ueda, Japan	<b>IHSI 2</b>
9:00 - 10:30 - MILAN	<p><b>Social perception of Embodied Digital Technologies interacting with humans</b>                      Sarah Mandl, Jennifer Brade, Maximilian Bretschneider, Anabel Skripcak, Frank Asbrock, Bertolt Meyer, Georg Jahn, Philipp Klimant, Anja Strobel, Germany</p> <p><b>Micro-refresh to Restore Intellectual Concentration Decline during Office Work: An Attempt at Quantitative Effect Evaluation</b>                      Kakeru Kitayama, Orchida Dianita, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Fumiaki Obayashi, Japan</p> <p><b>The Influence of Worker's Motivation on Intellectual Concentration by ACT-R Cognitive Models</b>                      Orchida Dianita, Keisuke Takeuchi, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Fumiaki Obayashi, Japan</p> <p><b>Effects of listening to sutra chanting during breaks in on-demand lecture attendance</b>                      Kyoko Ito, Hiroki Yoshikawa, Japan</p> <p><b>Visual Characteristics of Head-Up-Display Failure Warning</b>                      Sun guoqiang, Xu wu, China</p> <p><b>Facial acne recognition system based on machine learning</b>                      Ding Haopeng, Yunfei Chen, China</p> <p><b>Multiphase pointing motion model based on hand-eye bimodal cooperative behavior</b>                      Chenglong Zong, Xiaozhou Zhou, Jichen Han, Haiyan Wang, China</p>	
<b>3</b>	<b>Intelligence, Technology and Analytics I</b> Session Chair(s): Tihomir Dovramadjiev , Bulgaria and Verena Wagnerhartl, Germany	<b>IHSI 3</b>
9:00 - 10:30 - PALERMO	<p><b>Protection and Transfer of Financial Digital Data Through Open Source Software</b>                      Rusko Filchev, Tihomir Dovramadjiev, Rozalina Dimova, Plamen Parushev, Bulgaria</p> <p><b>Induction method influence on emotion recognition based on psychophysiological parameters</b>                      Ramona Schmid, Sophia Maria Saat, Knut Möller, Verena Wagner-Hartl, Germany</p> <p><b>Quality forecasts in manufacturing using autoregressive models</b>                      Jan Mayer, Roland Jochem, Germany</p> <p><b>Privacy Preserving Stress Detection System Using Physiological Data from Wearable Device</b>                      Yongho Lee, Vinh Pham, Nahyun Lee, Jiwoo Lee, Tai-Myoung Chung, South Korea</p> <p><b>Enhancement Characteristics of Visual Stimulus Elements in SSVEP-BCI System</b>                       Zhiyuan Li, Zhaozhe Zhou, Yiyang Wang, Jingze Tian, Wenjun Yang, Yafeng Niu, China</p>	
10:30 - 11:00 • Sessions Break		



<b>5</b>	<b>Humans and Artificial Systems Complexity I</b> Session Chair(s): Janne Heilala, Finland and Sergio Staab, Germany	<b>IHSI 5</b>
11:00 - 12:30 - ROMA	<p><b>Recognition Model for Activity Classification in Everyday Movements in the Context of Dementia Diagnostics – Cooking</b> Sergio Staab, Ludger Martin, Johannes Luderschmidt, Lukas Bröning, Germany</p> <p><b>Visual cues improve spatial orientation in telepresence as in VR</b> Jennifer Brade, Tobias Hoppe, Sven Winkler, Philipp Klimant, Georg Jahn, Germany</p> <p><b>A data-driven but person-centered assessment framework for sustainable rehabilitation services</b> Masayuki Ihara, Hiroko Tokunaga, Hiroki Murakami, Shinpei Saruwatari, Kazuki Takeshita, Akihiko Koga, Takashi Yukihiro, Shinya Hisano, Ryoichi Maeda, Masashige Motoe, Japan</p> <p><b>Affective Analysis of Explainable Artificial Intelligence in the Development of Trust in AI Systems</b> Ezekiel Bernardo, Rosemary Seva, Philippines</p> <p><b>Sketches versus Artificial Intelligence Systems in Design Creative Process</b> Ana Moreira Da Silva, Portugal</p> <p><b>Sustainable Human Performance In Large People-oriented Corporations: Integration Of Human Systems For Next-generation Metaverse</b> Janne Heilala, Finland</p> <p><b>A Task-Technology Fit Model for Digital Audio Workstations Evaluation</b> Darko Etinger, Croatia</p>	
<b>6</b>	<b>Social Inclusion and Integrated Technological Smart Systems</b> Session Chair(s): Francois Leborgne, Netherlands and Markus Holzbach, Germany	<b>IHSI 6</b>
11:00 - 12:30 - MILAN	<p><b>Design of an economic house with polyurethane wall technology applying the Lego removable system for the Monte Sinai Sector, Guayaquil</b> Ivonne Rendon, Felipe Espinoza, Johnson Ching, Bryan Colorado, Rommy Torres, Ecuador</p> <p><b>Informed Materials: Design with Designed Materials as a Method</b> Markus Holzbach, Valentin Brück, Ziyu Zhou, Germany</p> <p><b>The development of a washable and durable smart textile to measure electrodermal activity for early stress recognition</b> François Leborgne, Reon Smits, Maya Gencheva, Stefan De Vries, Erwin Meinders, Pierre Cluitmans, Chris Lee, Jan-carlos Kuhlmann, France</p> <p><b>The Human Factor in the Adoption of Zero Trust Architecture in E-commerce</b> Mona Mohamed, United States</p> <p><b>Sculpting the fabric: Madame Grès' emotional and innovative Pleating Technique</b> Anabela Becho, Portugal</p> <p><b>Inclusive dictionary for people with disabilities through an accessible technological platform</b> Elking Araujo, Verónica Maldonado-garcés, Nelson Salgado, Ecuador</p> <p><b>Design of a serious game for the improvement of reading comprehension through the IPLUS methodology</b> Verónica Maldonado-garcés, Elking Araujo, Mayra Carrión Toro, Erick Mayorga, Cristhian Muñoz, Ariel Pillajo, Marco Santórum, Ecuador</p>	
<b>7</b>	<b>Human-Autonomy Teaming I</b> Session Chair(s): Rune Stensrud, Norway and Felix Miesen, Germany	<b>IHSI 1</b>
11:00 - 12:30 - PALERMO	<p><b>Orchestrating Humans and Teammates to counter security threats: Human-autonomy teaming in high and low environmental complexity and dynamism</b> Rune Stensrud, Sigmund Valaker, Bjorn Mikkelsen, Norway</p> <p><b>How to support and integrate operators in CPPS: Insights from competency modelling for adapt and exchange scenarios</b> Felix Miesen, Leon Urbas, Susanne Narciss, Germany</p> <p><b>Development of a Concept of Operations for an autonomous tram system</b> Jari Laarni, Antti Vääänen, Finland</p> <p><b>Physiological indices to predict task performance and operator workload: A two-step approach to real-time state monitoring</b> Amanda Kelley, Katie Feltman, United States</p>	
12:30 - 13:30 • Sessions Break		

<b>8</b>	<b>Applications and Future Trends I</b> Session Chair(s): Joy Richardson, United Kingdom and Matteo Zallio, United Kingdom	<b>IHSI 8</b>
13:30 - 15:00 - ROMA	<p><b>The Iconography of Mobility as a Service (MaaS) - A Focus Group Study</b> Joy Richardson, Jisun Kim, Henrietta Howarth, John Preston, United Kingdom</p> <p><b>Metavethics: Ethical, integrity and social implications of the metaverse</b> Matteo Zallio, P John Clarkson, United Kingdom</p> <p><b>User-centred generation of early-concept Mobility-as-a-Service interface designs aimed at promoting greener travel</b> Jisun Kim, Henrietta Howarth, Joy Richardson, John Preston, United Kingdom</p> <p><b>Evaluation Planning for Artificial Intelligence-based Industry 6.0 Metaverse Integration</b> Janne heilala, Khushboo Singh, Finland</p> <p><b>Enhancing a Capability Maturity Model for the Smartification of Products by a Generic Approach and a Third Dimension</b> Sandra Frings, Holger Kett, Jürgen Falkner, Germany</p> <p><b>Aesthetic Computational Model and Experimental Research Based on Seeking the Particle of Image Elements</b> Caini Liu, ChengQi Xue, China</p> <p><b>Safe and Flexible Collaborative Assembly Processes Using Behavior Trees and Computer Vision</b> Minh Trinh, David Kötter, Ariane Chu, Mohamed Behery, Gerhard Lakemeyer, Christian Brecher, Germany</p>	
<b>9</b>	<b>Automotive Design and Transportation Engineering II</b> Session Chair(s): Zhihang Liu, Japan and Zelei Pan, China	<b>IHSI 1</b>
13:30 - 15:00 - MILAN	<p><b>Investigating Effects of Assistance Systems For Visually Impaired Drivers at Preventing Traffic Accidents</b> Zhihang Liu, Jieun Lee, Junpei Kuwana, Huiping Zhou, Makoto Itoh, Japan</p> <p><b>Interaction between humans and autonomous systems: Human facing explanatory interface for an urban autonomous passenger ferry</b> Felix-marcel Petermann, Ole Andreas Alsos, Eleftherios Papachristou, Norway</p> <p><b>Non-visual effects of CCT on drivers, evidence from EEG</b> Zelei Pan, Haiyan Wang, Jinchun Wu, Quan Chen, China</p> <p><b>Drowsiness Prevention System in Automatic Driving - Effects of Light Position on Comfortable and Unconscious Wakefulness During Driving</b> Han Zhang, Seunghee Lee, China</p>	
<b>10</b>	<b>Humans and Artificial Cognitive Systems II</b> Session Chair(s): Juliana Bezerra, Portugal and Miguel Carvalho, Portugal	<b>IHSI 2</b>
13:30 - 15:00 - PALERMO	<p><b>Ergonomics and worker well-being: contributions to sustainability in the apparel manufacturing industry</b> Juliana Bezerra Gomes De Pinho Pessoa, Néelson Costa, Miguel Carvalho, Portugal</p> <p><b>Color processing and human perception</b> Fernando Moreira da Silva, Portugal</p> <p><b>Cardiovascular Reactivity (CVR) During Repetitive Work in the Presence of Fatigue</b> Diogo Carvalho, Luis Silva, Miguel Carvalho, Mariana Dias, Néelson Costa, Duarte Folgado, Maria Lua Nunes, Hugo Gamboa, Kristine Andza, Elazer Edelman, Portugal</p> <p><b>An Improved Body Operations Mitigating VR Sickness through Stepping Gaming Mat</b> Kazuki Komoriya, Munehiro Takimoto, Yasushi Kambayashi, Japan</p> <p><b>A rehabilitation-through-photographing support system for muscular dystrophy patients</b> Yuta Sato, Yasushi Kambayashi, Japan</p> <p><b>Visual effects based on blank fractions in the case of multi-paragraph text overlay images</b> Zhang Yiran, China</p>	
End of Day 1 Sessions		





<b>15</b>	<b>Humans and Artificial Cognitive Systems III</b> Session Chair(s): Rita Almendra, Portugal	<b>IHSI 2</b>
11:00 - 12:30 - ROMA	<p><b>Investigating the relationship between EEG features and N-back task difficulty levels with NASA-TLX scores among undergraduate students</b> Şeniz Harputlu Aksu, Erman Çakıt, Metin Dağdeviren, Turkey</p> <p><b>Artificial Cognitive Systems and Aviation training</b> Abner Del Cid Flores, Dimitrios Ziakkas, Brian G Dillman, United States</p> <p><b>An augmented-reality-assisted immersive system for robotic arms teleoperation</b> Claudio Loconsole, Daniele Leonardis, Antonio Frisoli, Italy</p> <p><b>A Data Driven Approach for Language Acquisition</b> Ting Liu, Sharon Small, Peter Tu, United States</p> <p><b>The feasibility on fatigue state monitoring based on eye parameters in virtual reality environment</b> Jichen Han, Xiaozhou Zhou, Chenglong Zong, Fei Teng, China</p>	
<b>16</b>	<b>Applications and Future Trends III</b> Session Chair(s): Tong Li, China and Xiaoqin Zhou, China	<b>IHSI 8</b>
11:00 - 12:30 - MILAN	<p><b>Layout evaluation of interface of TV remote controls based on analytic hierarchy process</b> Tong Li, Meng Qian Tian, Xingsong Wang, China</p> <p><b>The characteristics of fashion magazine layout design style based on aesthetic measure model</b> Xiaoqin Zhou, Yunfei Chen, China</p> <p><b>The influence of interface beauty factors on the cognitive performance of news web interface visual information</b> Dingwen Zhang, China</p> <p><b>Ergonomic Redesign of Till Operator Workstation to Reduce Overload</b> Namrata Arora, Anshuman Shastri, Nabila Rehman, India</p> <p><b>Effects of Visual Anchors in Sequential Presentations of Data Visualization</b> Xinyi Tang, Linlin Wang, Ningyue Peng, Chengqi Xue, China</p> <p><b>Optimization of Human Machine Interface Beauty Calculation System</b> Chi Yueyue, Yunfei Chen, China</p> <p><b>Aesthetic Evaluation of Music Apps Interface Based on Aesthetic Calculation</b> Xinran Yan, ChengQi Xue, China</p>	
<b>17</b>	<b>Humans and Artificial Cognitive Systems IV</b> Session Chair(s): Turgut Refik Caglar, Germany	<b>IHSI 2</b>
11:00 - 12:30 - PALERMO	<p><b>Psychophysiological Monitoring for Real-Time Cognitive State Detection: A Survey of Experts</b> Kathryn Feltman, United States</p> <p><b>A System Approach for Creating Employee-Oriented Quality Control Loops in Production for Smart Failure Management System in SMEs</b> Turgut Refik Caglar, Roland Jochem, Germany</p> <p><b>Sensor based ergonomic cushion for posture detection and correction</b> Anshuman Shastri, Namrata Arora, Kavita Sagar, India</p> <p><b>Different approaches of conducting ergonomic assessment utilizing digital human models and motion capture in industrial site assembly</b> Clara Fischer, Patrick Rupperecht, Sebastian Schlund, Austria</p> <p><b>Application of Double Skin Facade to improve the thermal comfort level in an experimental chamber</b> Eusébio Conceição, M Inês Conceição, M Manuela Lúcio, João M. Gomes, Hazim Awbi, Portugal</p>	
<b>12:30 - 13:30 • Sessions Break</b>		

<b>18</b>	<b>Applications and Future Trends IV</b> Session Chair(s): Haoyue Dai, China and Shuangdong Cui, China	<b>IHSI 8</b>
13:30 - 15:00 - ROMA	<p>The influence of background, layout and color elements on the beauty index of search engine interface Haoyue Dai, ChengQi Xue, China</p> <p>Visual aesthetic calculation and evaluation model of background pattern formed by the repeated arrangement of single patterns Shuangdong Cui, Yan Zhang, Yunfei Chen, China</p> <p>The relationship between the performance of the star and the shape of basketball sneaker and the prediction of the shape design Xingjian Liu, Xingsong Wang, China</p> <p>Evaluation Method of TV Wall Layout Design Haoyu Jiao, Jianrun Zhang, China</p> <p>Meta-verse Non-Heritage in Art Exhibitions: Virtual Reality Contextual Narrative Across Time and Space Yu jian, China</p> <p>A comparative study on the layout of interface elements of two types of Web pages with different uses based on beauty degree calculation Huang Yongzhe, Beibei Sun, China</p> <p>The visual beauty of text overlay images of different proportions of pictures Yujia Li, China</p>	
<b>19</b>	<b>Applications and Future Trends V</b> Session Chair(s): Yanyan Song, China and Xianzhao Fang, China	<b>IHSI 8</b>
13:30 - 15:00 - MILAN	<p>The possibility of generating color scheme based on art works for Web Design Yanyan Song, Yunfei Chen, China</p> <p>An objective aesthetic evaluation method of CNC machine tool based on aesthetic degree calculation Xianzhao Fang, Jianrun Zhang, China</p> <p>Tradition, Desire, Techno-Orientalism and Popularity: Oriental Elements in the 21st-century Cyberpunk Video Games Chengkai Xu, Weiting Li, Laila Zhong, Xuwei Li, Qingyuan Lyu, Yuran Guo, Fang Liu, China</p> <p>The Influence of Visual Balance of Interface Elements Layout on the Attractiveness of APP Guide Pages Yang Wang, Yan Zhang, China</p> <p>Eagle Model: A Future Medical Product Innovative Design Model Driven by Human-Technology Symbiosis and Co-design Yue Jiang, Jing Chen, Yidan Xu, Shimeng Xiao, Long Liu, China</p> <p>Hot Spots and Trends Analysis of Elderly-Oriented Interface Design Ziang Wang, China</p> <p>When technology reinforces other forms of labour segmentation: A contrasted analysis between work activity and training processes in the cork sector Liliana Cunha, Daniel Silva, Mariana Macedo, Portugal</p>	
<b>20</b>	<b>Applications and Future Trends VI</b> Session Chair(s): Ran Huang, China and Zihan Zhao, China	<b>IHSI 8</b>
13:30 - 15:00 - PALERMO	<p>A comparative study on user experience of four apps for renting house based on D-Lab eye-tracking experiment Ran Huang, Yanfei zhu, ChengQi Xue, China</p> <p>Effects of Users' Familiarity in Icons on the Cognitive Performance of Icon Identification Zihan Zhao, Wenzhe tang, Linlin Li, ChengQi Xue, China</p> <p>Conversational Interaction Design for shopping apps: Situational awareness theory Fusheng Jia, Xinyu Chen, Renke He, China</p> <p>Design in the folding calculation of origamis in interactive installation art Da Zheng, Xiaodan Liu, Shuya Zhang, China</p> <p>Scenario-based public nebulization equipment prototype design for inhaled vaccine application Tianyi Sheng, Xiaoli Qiu, China</p> <p>Aesthetics Evaluation Method of Chinese Characters based on Region Segmentation and Pixel Calculation Weigang Wang, Xinyue Wang, ChengQi Xue, China</p> <p>Evaluation of Microwave Oven Control Panel Interface Based on Aesthetic Calculation Yuzhen Qiu, Haiyan Wang, China</p>	

End of Day 2 Sessions

# Interactive Poster Demonstrations

POSTER/DEMONSTRATION SESSIONS  
THURSDAY-FRIDAY, FEBRUARY 23-24 (10:30 - 12:30)

- A1. **Designing interactive shared decision making for long term care system**  
Myonghwa Park, South Korea
- A2. **Creating Virtual Worlds with the Virtual Human Toolkit and the Rapid Integration & Development Environment**  
Arno Hartholt, Sharon Mozgai, United States
- A3. **Korean consumers' perception of autonomous driving: Using text mining on YouTube data**  
Soyeong Choi, Xu Li, Jianchun Huang, Jaeyoung Yoo, Yuxuan Ding, Hyesun Hwang, South Korea
- A4. **Edutainment Contents Production Platform Using the Movements of Young Children**  
Sanghun Nam, South Korea
- A5. **Conceptual Exploration of Contextual Information for Situational Understanding**  
Stratis Aloimonos, Adrienne Raglin, United States
- A6. **Decision support in the textile industry using invertible neural networks**  
Kai Müller, Thomas Gries, Germany
- A7. **Robot Moral Advice in a High Stakes Military Environment**  
Jonah Nascimento, Niyah Martinez, Harley Anez, Spenser Schwalm, Kekoa Gross, Benjamin Pederson, Amiyah Breeding, Ewart de Visser, Steven Hadfield, Ali Momen, Melissa Mclain, Bonnie Rushing, Christopher Gausepohl, Chad Tossell, United States
- A8. **The design guide and scenario of virtual reality education APP**  
Qiaoling Zou, Zishun Su, Lei Zou, Dongning Li, China
- A9. **Simulation of analytical calculations when optimizing integrative properties and composite metal coatings**  
Vyacheslav Rusanov, Ilya Gubanov, Sergey Agafonov, Alexey Daneev, Russia

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