



# 2024 IHSI International

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

## Final Program

February 22-24, 2024

Università degli Studi di Palermo  
Palermo, Italy

[WWW.IHSINT.ORG](http://WWW.IHSINT.ORG)

The background of the poster is a vibrant photograph of a coastal town, likely Palermo, Italy. The town is built on a hillside overlooking a harbor filled with numerous white sailboats and yachts. The water is a clear, bright blue, and the sky is a deep blue with scattered white clouds. In the foreground, there are some red flowers, possibly bougainvillea, adding a splash of color to the scene.



## Conference Reception and Banquet February 22, 18:30 - 22:00 (CET)

### IHSI 2024 International Conference

Università degli Studi di Palermo

Department of Architecture Building 14

Address: Viale delle Scienze, 19/Ed. 14, 90128 Palermo PA, Italy

**Conference Reception:** 18:30 - 22:00 February 22, 2024

Location: Le Terrazze del Sole a Palermo

Address: Via Vittorio Emanuele, 291, 90100 Palermo PA, Italy

*(Registered Participants only - Dress: Business Casual , Photo ID Required)*

# Conference Organization

### ORGANIZING CONFERENCE CO-CHAIRS

Dario Russo (Università degli Studi di Palermo), Italy

Giuseppe Di Bucchianico (Università di Chieti-Pescara), Italy

### CONFERENCE SCIENTIFIC ADVISOR

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

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

#### 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



Hybrid conference program schedule is listed in  
Central European Standard Time (CET) - Palermo Timezone

## Friday, Feb 23

#	TITLE	ROOM	TRACK
<b>Session Time: 9:00-10:30 (CET)</b>			
1	Transportation Engineering: Automotive Design I	Roma	IHSI 1
2	Humans and Artificial Cognitive Systems I	Milan	IHSI 2
3	Intelligence, Technology and Analytics I	Venice	IHSI 3
<b>10:30-11:00 • Sessions Break</b>			
<b>Session Time: 11:00 - 12:30</b>			
4	Computational Modeling and Simulation I	Roma	IHSI 4
5	Humans and Artificial Systems Complexity I	Milan	IHSI 5
6	Smart Materials and Inclusive Human Systems	Venice	IHSI 6
<b>12:30 - 13:00 • Sessions Break</b>			
<b>Session Time: 13:00 - 14:00</b>			
7	Human-Autonomy Teaming I	Roma	IHSI 7
8	Applications and Future Trends: AI and Inclusive Human Systems	Milan	IHSI 8
10	Humans and Artificial Cognitive Systems II	Venice	IHSI 2

## Saturday, Feb 24

#	TITLE	ROOM	TRACK
<b>Session Time: 9:00-10:30 (CET)</b>			
11	Intelligence, Technology and Analytics II	Roma	IHSI 3
12	Computational Modeling and Simulation II	Milan	IHSI 4
13	Humans and Artificial Systems Complexity II	Venice	IHSI 5
<b>10:30-11:00 • Sessions Break</b>			
<b>Session Time: 11:00 - 12:30</b>			
14	Workshop: Participatory Exploration and Design of Human-AI Cooperation	Roma	IHSI 7
15	Applications and Future Trends: Simulation and Virtual Reality	Milan	IHSI 8
17	Applications and Future Trends: User Experience	Venice	IHSI 8
<b>12:30 - 13:00 • Sessions Break</b>			
<b>Session Time: 13:00 - 14:00</b>			
18	Applications and Future Trends: Eye Tracking and AI	Roma	IHSI 8
19	Design, Applications and Future Trends	Milan	IHSI 8

<b>1</b>	<b>Transportation Engineering: Automotive Design I</b> Session Chair(s): Birsen Donmez, Canada and Miriam Schäffer, Germany	<b>IHSI 1</b>
9:00 - 10:30 - ROMA	<p><b>Training to Support Appropriate Reliance on Advanced Driver Assistance Systems</b> Chelsea Deguzman, Birsen Donmez, Canada</p> <p><b>Automotive human machine interface to use like a peripersonal space through the elbow using vibrotactile stimulation</b> Tomokazu Furuya, Takeshi Kawashima, Japan</p> <p><b>Analysis of Physical Readiness for Take-Over in Automated Driving – Approach to Classify Non-Driving Related Activities According to Their Level of Complexity</b> Miriam Schäffer, Felix Unselt, Wolfram Remlinger, Germany</p> <p><b>Navigating the challenges of remote operations of automated road vehicles: A socio-technical perspective</b> Jonas Andersson, Mikael Söderman, Sweden</p> <p><b>Requirements for Haptic Virtual Training Systems in the Automotive Industry</b> Michael Preutenborbeck, Friedrich Wolf-Monheim, Eilis Carey, Pasquale Canu, Nicolas Daniel Herzberger, Frank Flemisch, Germany</p> <p><b>User-centred planning for rail vehicles to increase efficiency</b> Bernhard Rueger, Austria</p> <p><b>Exploring External Human Machine Interface Design for Autonomous Vehicle to Pedestrian Communication: Insights from Discussions and Drawing Sessions</b> Ali Alhawiti, Valerian Kwigizile, Jun-seok Oh, Zachary D Asher, Obaidullah Hakimi, United States</p>	
<b>2</b>	<b>Humans and Artificial Cognitive Systems I</b> Session Chair(s): Alexander Streicher, Germany and Patrice Renaud, Canada	<b>IHSI 2</b>
9:00 - 10:30 - MILAN	<p><b>Participants' speed-accuracy trade-off behavior in high-stress situations in simulator studies</b> Marcel Usai, Philip Schäfer, Nicolas Daniel Herzberger, Frank Flemisch, Germany</p> <p><b>Experimental study on the effect of micro-refresh during office work in VR space to restore intellectual concentration decline</b> Kento Nomura, Takuto Higashimaki, Reika Abe, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Fumiaki Obayashi, Japan</p> <p><b>Cognitive User Modeling for Adaptivity in Serious Games</b> Alexander Streicher, Kolja Bauer, Germany</p> <p><b>Cognitive Systems Challenges of Virtual Reality (VR) and Simulated Air Traffic Control Environment (SATCE) in Flight Training: The Purdue Case Study</b> Dimitrios Ziakkas, Linda Tomko, Dimitra Eirini Synodinou, United States</p> <p><b>First Probe into Frontal EEG Dynamic Cross-Entropy Associated with Virtual Sexual Content</b> Mathieu Brideau-Duquette, Sara Saint Pierre Côté, James Pfaus, Patrice Renaud, Canada</p> <p><b>The Neural Algebra and its Impact on Design and Test of Intelligent Systems</b> Thomas Fehlmann, Eberhard Kranich, Switzerland</p> <p><b>Causal Discovery for Observational Image Datasets: A Vision Paper</b> Atul Rawal, Adrienne Raglin, Ziyang Tang, Qianlong Wang, United States</p>	

<p><b>3</b></p>	<p><b>Intelligence, Technology and Analytics I</b>                  Session Chair(s): Justin Nelson, United States and Ryunosuke Fukada, Japan</p>	<p><b>IHSI 3</b></p>
<p>9:00 - 10:30 - VENICE</p>	<p><b>Temporal Analysis Method to Visualize Changes in Alternative Uses Test Performance</b>                  Ryunosuke Fukada, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Japan</p> <p><b>Can Structured Analytic Techniques enhance Intelligence, Surveillance, and Reconnaissance (ISR) Assessments when providing Incremental Information</b>                  Justin Nelson, Anna Maresca, Bradley Schlessman, United States</p> <p><b>A Methodological Examination of Attitudes Toward Emerging Science and Technology</b>                  Kyoko Ito, Kazune Ezaki, Tomiko Yamaguchi, Japan</p> <p><b>IDS with hybrid sampling technique: combination over and under-sampling technique and comparison with deep convolutional approach</b>                  Davy Ghislain Vlavonou, Isckyros Gangbo, Thierry Nsabimana, Christian Bimenyimana, Perpetus Jacques Hounbo, Joël T. Hounsou, Fulvio Frati, Benin</p> <p><b>Design of Learning History Retention Framework using Blockchain Infrastructure to Ensure Reliability of Learning Goals</b>                  Satoshi Togawa, Akiko Kondo, Kazuhide Kanenishi, Japan</p> <p><b>Mobile Application for Job Recommender System Connecting Students and Startups/SMEs for Practical Experience and Skill Development</b>                  Noura Alhakbani, Saudi Arabia</p> <p><b>Math Game for Elementary School Children Using Leap Motion Controller</b>                  Abeer Alnafjan, Saudi Arabia</p>	
<p>10:30 - 11:00 • Sessions Break</p>		
<p><b>4</b></p>	<p><b>Computational Modeling and Simulation I</b>                  Session Chair(s): Arno Hartholt, United States and Akihiko Hanafusa, Japan</p>	<p><b>IHSI 4</b></p>
<p>11:00 - 12:30 - ROMA</p>	<p><b>Introduction to human body model used for evaluating welfare and medical devices</b>                  Akihiko Hanafusa, Japan</p> <p><b>Multidisciplinary Research &amp; Development of Multi-Agents and Virtual Humans Leveraging Integrated Middleware Platforms</b>                  Arno Hartholt, Andrew Leeds, Ed Fast, Edwin Sookiassian, Kevin Kim, Sarah Beland, Pranav Kulkarni, Sharon Mozgai, United States</p> <p><b>3D Reconstruction Method Using A Pendulum RGB-D Camera</b>                  Shigeaki Futagami, Kimi Ueda, Hirotake Ishii, Hiroshi Shimoda, Japan</p> <p><b>Integrated Eye-Tracking and EEG Data Collection and Synchronization for Virtual Reality-Based Spatial Ability Assessments</b>                  Faezeh Salehi, Moein Razavi, Mason Smith, Manish Dixit, United States</p> <p><b>Indirectly determined maximal cardiac output in men and women with different physical activity</b>                  Novák Jaroslav, Milan Stork, Czech Republic</p>	

<b>5</b>	<p><b>Humans and Artificial Systems Complexity I</b>                  Session Chair(s): Bettina Harriehausen Mühlbauer, Germany and Stefan Neubauer, Germany</p>	<b>IHSI 5</b>
11:00 - 12:30 - MILAN	<p><b>Integrating Rasmussen’s SRK Taxonomy in a Future Fighter Cockpit Design Process</b>                  Stefan Neubauer, Simon Schwerd, Axel Schulte, Germany</p> <p><b>The importance of crowdsourcing in the development of a navigation app for mobility impaired users</b>                  Bettina Harriehausen-Mühlbauer, Germany</p> <p><b>How does it work? Collecting mental models for the user-centered design of assistance systems: a construction machinery case study</b>                  Theresa Prinz, Rutuja Joshi, Philipp Ehrle, Klaus Bengler, Dominik Hujo, Marius Krüger, Birgit Vogel-Heuser, Sebastian Beerkircher, Cornelia Kerausch, Germany</p> <p><b>The Role of Artificial Intelligence in weather prediction, flight planning, route optimization and scheduling.</b>                  Abner Flores, Dimitrios Ziakkas, Konstantinos Pechlivanis, United States</p> <p><b>An Automated Activity Determination in the Temporal Domain for Adaptive Pilot Assistance</b>                  Karl Tschurtschenthaler, Axel Schulte, Germany</p> <p><b>Factors influencing the use of shared stroller rentals in scenic spots—an extension based on the UTAUT model</b>                  Yu Xin Jiang, Xun Chen, Xu Li, China</p> <p><b>The effect of visual and auditory channel interaction on cognitive performance in online education</b>                  Yingliang Sun, Wenyu Wu, Ke Zhu, Hao Huang, Jiayu Guo, Yilian Li, China</p>	
<b>6</b>	<p><b>Smart Materials and Inclusive Human Systems</b>                  Session Chair: Stefania Camplone, Italy</p>	<b>IHSI 6</b>
11:00 - 12:30 - VENICE	<p><b>Design Process for Technological and Meaningful Innovation: A Case Study of Light Solar Design Lab</b>                  Stefania Camplone, Alessio D’Onofrio, Antonio Marano, Ivo Spitilli, Italy</p> <p><b>Strategic Design for mobility: Study of a methodology for the analysis of user behavior and choices regarding mobility</b>                  Samuele Morvillo, Salvatore Di Dio, Benedetto Inzerillo, Daniele Ronsivalle, La Gennusa Maria, Italy</p> <p><b>Trends of Virtual Simulation Technology in Clothing Design</b>                  Zichan Wang, China</p> <p><b>Model-based Systems Engineering (MBSE) Enterprise Architecture Framework (EAF) with Human System Integration (HSI) – A Smart-City (SC) Case Study</b>                  Sarah Rudder, United States</p>	
12:30 - 13:00 • Sessions Break		
<b>7</b>	<p><b>Human-Autonomy Teaming I</b>                  Session Chair(s): Rune Stensrud, Norway and Fabio Paternò, Italy</p>	<b>IHSI 7</b>
13:00 - 14:00 - ROMA	<p><b>Situation awareness training as a prerequisite for handling complexity in Human-autonomy teaming: Demonstration and experiment proposal</b>                  Rune Stensrud, Sigmund Valaker, Aleksander Simonsen, Olav Rune Nummedal, Norway</p> <p><b>An Approach to Explainable Automations in Daily Environments</b>                  Sara Maenza, Andrea Mattioli, Fabio Paternò, Italy</p> <p><b>Improving Intelligent Agent Teaming Performance through Transparency when Reliability Varies: a Cross-Cultural Study</b>                  Leon Wang, China</p> <p><b>Beyond Levels of Automation: Human System Modes, Levels, Functions and Patterns for an Intelligent Human Systems Integration of Humans and Co-Systems</b>                  Frank Flemisch, Nicolas Daniel Herzberger, Marcel Usai, Joscha Wasser, Germany</p> <p><b>Automation versus machine autonomy</b>                  Laura Burzagli, Italy</p> <p><b>Preferences for the decision weight and accountability assignment in risky decision-making under human-machine collaboration contexts</b>                  Wei Xiong, Liuxing Tsao, Liang Ma, China</p> <p><b>Safety boundary conditions for human machine interface design of medium level intelligent vehicle</b>                  Fenghe Liang, Quan Yuan, China</p>	

<b>8</b>	<p><b>Applications and Future Trends: AI and Inclusive Human Systems</b>                  Session Chair(s): Stefania Camplone, Italy and Anna Dhungel, Germany</p>	<b>IHSI 8</b>
13:00 - 14:00 - MILAN	<p><b>Design Process for Technological and Meaningful Innovation: A Case Study of Light Solar Design Lab</b>                  Stefania Camplone, Alessio D'Onofrio, Antonio Marano, Ivo Spitilli, Italy</p> <p><b>Using Machine Learning for Anomaly Detection in German Public Budgeting Data</b>                  Anna Katharina Dhungel, Lea Sophie Watermann, Christiane Wegner, Moreen Heine, Germany</p> <p><b>Requirements Reuse in Complex European Security Research Projects – a Border Management Perspective</b>                  Laura Salmela, Jari Laarni, Antti Väättänen, Sirra Toivonen, Finland</p> <p><b>Analyzing the symbolic significance of Angelopoulos' films from the perspective of semiotics</b>                  Hanzhang Dong, USA</p> <p><b>Strategic Design for mobility: Study of a methodology for the analysis of user behavior and choices regarding mobility</b>                  Samuele Morvillo, Salvatore Di Dio, Benedetto Inzerillo, Daniele Ronsivalle, La Gennusa Maria, Italy</p> <p><b>Headset gas sensor for non-invasive biomonitoring of blood EtOH</b>                  Kohji Mitsubayashi, Geng Zhang, Kenta Ichikawa, Kenta Iitani, Koji Toma, Takahiro Arakawa, Japan</p>	
<b>10</b>	<p><b>Humans and Artificial Cognitive Systems II</b>                  Session Chair(s): Sigurd Schacht, Germany and Clement Galaup, Canada</p>	<b>IHSI 2</b>
13:00 - 14:00 - VENICE	<p><b>Multimodal HCI: a review of computational tools and their relevance to the detection of sexual presence</b>                  Clement Galaup, Lama Séoud, Patrice Renaud, Canada</p> <p><b>Magenta: Metrics and Evaluation Framework for Generative Agents based on LLMs</b>                  Sudarshan Kamath Barkur, Pratik Sitapara, Sven Leuschner, Sigurd Schacht, Germany</p> <p><b>A serious game for the cognitive stimulation of seniors</b>                  Paula Escudeiro, Márcia Campos, Francisca Escudeiro, Nuno Escudeiro, Portugal</p> <p><b>Cognitive efforts associated with spatial ability under altered spatial conditions: An eye-tracking study</b>                  Faezeh Salehi, Fatemeh Pariafsai, Manish Dixit, United States</p> <p><b>Decoding Internal Decision Making During Reverse Engineering Tasks</b>                  Brianna Marsh, Jocelyn Rego, Mia Levy, Mitchell Sayer, Alex Waagen, Aidan Barbieux, Edward Cranford, Don Morrison, Froylan Maldonado, Jeremy Johnson, Joseph Divita, Jonathan Buch, Evelyn Kim, Christian Lebiere, Sunny Fugate, Rajan Bhattacharyya, United States</p> <p><b>Development of systematic measurement technology for girls' breast size based on humanistic technology</b>                  Yulin Zhao, China</p> <p><b>Ensuring Fast Interaction with HMI's for Safety Critical Systems - An Extension of the Human-Machine Interface Design Method KONECT</b>                  Marcel Saager, Alexander Steinmetz, Jan-patrick Osterloh, Anja Naumann, Axel Hahn, Germany</p>	
<b>End of Day 1 Technical Sessions</b>		

<b>11</b>	<b>Intelligence, Technology and Analytics II</b> Session Chair(s): Antero Karvonen, Finland and Monica Daniela Gomez Rios, Ecuador	<b>IHSI 3</b>
9:00 - 10:30 - ROMA	<p><b>Design Systems for Intelligent Technology</b> Mari Myllylä, Antero Karvonen, Hanna Koskinen, Finland</p> <p><b>Design of an augmented reality software tool to improve user interaction and awareness in geolocation platforms.</b> Monica Daniela Gomez Rios, Alejandro Drouet, Miguel Angel Quiroz Martinez, Ecuador</p> <p><b>Comparative Analysis of a Machine Learning model for Water Quality forecasting of the Guayas River based on the Internet of Things</b> Galo Enrique Valverde Landivar, David Perez, Ecuador</p> <p><b>Recommendations for the use of resilience matrix in healthcare institutions</b> Kenta Nakayama, Kenji Watanabe, Japan</p> <p><b>Comparative analysis for the selection of a virtualization tool using the AHP Model</b> Monica Daniela Gomez Rios, Bryan Acosta, Jos Rosales, Miguel Angel Quiroz Martinez, Ecuador</p> <p><b>Secure and intelligent Mobile App for KSA Tourism</b> Kahkashan Tabassum, Saudi Arabia</p> <p><b>Application of Artificial Intelligence for Talent Management: Challenges and Opportunities</b> Mohammad Rashed Khan, United Kingdom</p>	
<b>12</b>	<b>Computational Modeling and Simulation II</b> Session Chair(s): Sandra Mateus, Colombia and Shuai Ding, China	<b>IHSI 4</b>
9:00 - 10:30 - MILAN	<p><b>Computational Aesthetics-based Model Evaluation Method for Industrial Robots</b> Shuai Ding, Beibei Sun, China</p> <p><b>Development of a Video Game for Cognitive Stimulation in Early-Stage Alzheimer's Disease</b> Sandra Mateus, Jorge Giraldo, Daniel Ramírez, Claudia Ramos, Colombia</p> <p><b>Optimal Voltage Regulation on Medium Voltage Line In Rural Area Using DigSILENT</b> Galo Enrique Valverde Landivar, Ervin Solano, Roy Santana, Ecuador</p> <p><b>Optimization of the temperature field inside a forced convection oven</b> Zhen Yan, Minhua Chen, Hao Chen, Yan Zhang, China</p>	
<b>13</b>	<b>Humans and Artificial Systems Complexity II</b> Session Chair(s): Dimitrios Ziakkas, United States and Benedetta Terenzi, Italy	<b>IHSI 5</b>
9:00 - 10:30 - VENICE	<p><b>Interaction between designers and AI: literature review of research to highlight the characteristics of co-creation and methods for analyzing it</b> Elena Cavallin, Italy</p> <p><b>Human-AI Interaction: An Analysis of Anthropomorphization and User Engagement in Conversational Agents with a Focus on ChatGPT</b> Gustavo Simas, Vânia Ribas Ulbricht, Brazil</p> <p><b>Connection between AI and product design - Potentials and critical issues in the text-to-image software-assisted design experience</b> Benedetta Terenzi, Valeria Menchetelli, Giacomo Pagnotta, Ludovica Avallone, Italy</p> <p><b>The role of digital twins in the certification of the Advanced Air Mobility (AAM) systems</b> Dimitrios Ziakkas, Marc St-Hilaire, Konstantinos Pechlivanis, United States</p> <p><b>A preliminary analysis of a nuclear power plant startup for a physics-based model of a digital twin</b> Awwal Arigi, Ibrahim Aliyu, Jinsul Kim, Norway</p>	
<b>10:30 - 11:00 • Sessions Break</b>		



<p><b>14</b></p>	<p><b>Workshop: Participatory Exploration and Design of Human-AI Cooperation</b>                  Session Chair: Marcel Usai, Germany</p>	<p>IHSI 7</p>
<p>11:00 - 12:30 ROMA</p>	<p><b>Participatory Exploration and Design of Human-AI Cooperation</b>                  Marcel Usai, Joscha Wasser, Michael Preutenborbeck, Frank Flemisch, Germany</p>	
<p><b>15</b></p>	<p><b>Applications and Future Trends: Simulation and Virtual Reality</b>                  Session Chair(s): Michael Preutenborbeck, Germany and Maria Moga, Romania</p>	<p>IHSI 8</p>
<p>11:00 - 12:30 - MILAN</p>	<p><b>Haptics in Virtual Assembly Systems: Insights into the Current State of Research</b>                  Michael Preutenborbeck, Frank Flemisch, Nicolas Daniel Herzberger, Germany</p> <p><b>Character Development: Bridging Digital and Traditional Drawing Techniques</b>                  Maria Moga, Dan Radu Moga, Romania</p> <p><b>Emerging Technologies in Aviation: The Simulated Air Traffic Control Environment (SATCE) application in Competency Based Training and Assessment.</b>                  Dimitrios Ziakkas, Neil Waterman, Abner Flores, United States</p> <p><b>The Application of AR VR, and MR Technologies in the Museum Field: A Bibliometric Analysis from 2014 to 2023</b>                  Yu Xiao, Yong Wang, Zhiguo Fang, China</p> <p><b>Virtual Reality in Museum: Exploring the User Experience of Exhibition Narrative</b>                  Xin Hu, Po Hsun Wang, Macau Sar China</p> <p><b>Feasibility and Effectiveness of 2D Highlighting Methods Applied in 3D Modeling</b>                  Hui Meng, Xiaojun Liu, China</p>	
<p><b>17</b></p>	<p><b>Applications and Future Trends: User Experience</b>                  Session Chair(s): Davide Gentile, Canada and Kurt Englmeier, Germany</p>	<p>IHSI 8</p>
<p>11:00 - 12:30 - VENICE</p>	<p><b>User-Centered Models for Adaptive Learner Journeys in Self-Paced Learning</b>                  Kurt Englmeier, Germany</p> <p><b>Enhancing Human Performance with Post-Hoc Explanations in Machine Learning-based Decision Support Systems</b>                  Davide Gentile, Birsen Donmez, Greg Jamieson, Canada</p> <p><b>User experience and sustainability of person-centered services - A case study on caregiver workshops and services by a bar type of restaurant</b>                  Masayuki Ihara, Hiroko Tokunaga, Tomomi Nakashima, Shinpei Saruwatari, Hiroki Goto, Yuuki Umezaki, Shinya Hisano, Masashige Motoe, Japan</p> <p><b>Artificial Intelligence Generated Content (AIGC's) Cutting-Edge Practices and Challenges in The Field of Art Therapy</b>                  Chang Guo, Anglu Li, China</p> <p><b>Evolution in videogame graphics: an approach between reality approach and user perspective</b>                  Monica Daniela Gomez Rios, Kerly Araujo, Felipe Castro, Miguel Angel Quiroz Martinez, Ecuador</p> <p><b>Identifying Pain Points and Solutions in Intermodal Travel: A Qualitative Study based on Interviews with Mobility Experts</b>                  Merle Lau, Stefan Bohmann, Annika Dreßler, Michael Böhm, Duc Hai Le, Germany</p> <p><b>Khatti: An Interactive Mobile Application for Training of Arabic Calligraphy</b>                  Mashaal Aldayel, Saudi Arabia</p>	
<p>12:30 - 13:00 • Sessions Break</p>		

<p><b>18</b></p>	<p><b>Applications and Future Trends: Eye Tracking and AI</b>                  Session Chair(s): Tauheed Khan Mohd, United States and Salvatore Di Dio, Italy</p>	<p><b>IHSI 8</b></p>
<p>13:00 -14:00 - ROMA</p>	<p><b>Designing the Future: A Manifesto for Design Education</b>                  Salvatore Di Dio, Dario Russo, Francesco Monterosso, Benedetto Inzerillo, Italy</p> <p><b>Comparative Analysis and Evaluation of the Accuracy of Pixels Observed using Tobii Eye Tracker 5</b>                  Logan Hansen, Maya Conway, Cody Byrd, Quinn Au, Tauheed Khan Mohd, United States</p> <p><b>Vol3DEdu: Volograms' Integration in Education</b>                  Eleni Mangina, Hrishikesh Mulay, Konstantinos Amplanitis, Jan Ondřej, Rafael Pagés, Charalambos Vrasidas, Eftychia Xerou, Filippos Tzortzoglou, Alivizos Sofos, Ireland</p> <p><b>Implementation of Artificial Intelligence (AI) in global Electronic Pilot Licenses</b>                  Dimitrios Ziakkas, Abner Flores, Hans C Natakusuma, United States</p> <p><b>Streaming applied to entertainment: analysis of the constant evolution of a perpetual industry</b>                  Monica Daniela Gomez Rios, Eduardo Alvarado, Daniel Mora, Miguel Angel Quiroz Martinez, Ecuador</p>	
<p>13:00 -14:00 - MILAN</p>	<p><b>Design, Applications and Future Trends</b>                  Session Chair(s): Merle Lau, Germany and Liang Cao, China</p> <p><b>Bridging the Cognitive Gap: Optimizing Gesture Interaction Design for the Elderly</b>                  Cao Liang, China</p> <p><b>Through the Lens of ZMET Technique: Unveiling the Emotional Value and Innovative Integration of Campus Cultural and Creative Products</b>                  Jianhong Wang, Xin Hu, China</p> <p><b>Olfactory Profile: Enhancing the Satisfaction and Pleasure of Ride-Hailing Experiences</b>                  Yang Liu, Qiu Jie J, China</p> <p><b>Sustainable Warehouse Optimization: Integrating Industrial Design and IoT</b>                  Shervin Rezaei, Hamid Naghdbishi, Iran</p> <p><b>Design of waste plastic recycling facilities based on campus scenarios</b>                  Xun Chen, Yuxin Jiang, Xu Li, China</p> <p><b>The Influence of Tourism Awareness on Behavior</b>                  Akiko Kondo, Satoshi Togawa, Japan</p> <p><b>Digital Technology: As a Manner of Sustainable Transformation for Stakeholders in Cultural Inheritance</b>                  Lu Wang, China</p>	<p><b>IHSI 8</b></p>



# Interactive Poster Demonstrations

## POSTER/DEMONSTRATION SESSIONS

Friday-Saturday, February 23-24 (10:30 - 14:00)

- A1. **Cyber Rehabilitation for the Elderly with Mild Cognitive Impairment**  
Ki Hwan Kim, Eun Sung Choi, Young Jin Kang, Seok Chan Jeong, South Korea
- A2. **Evaluation of Styling Design of Heavy-duty Industrial Robots Based on Comprehensive Integration Weighting Method**  
Mingqi Li, Beibei Sun, China
- A3. **Korean adolescent gambling addiction through text mining analysis**  
Soyoun Kim, Seon Kyeong Ahn, Ick-Joong Chung, South Korea
- A4. **Can Virtual Reality Interventions Enhance the Mental Health of Korean Adolescents and Young Adults? A Systematic Review**  
Jiyoung Yoon, Yeonjee Cho, Serim Lee, Jongserl Chun, South Korea
- A5. **The impact of youth access to intelligent devices & services on social participation**  
Ji Sun Lee, Lina Cui, Lee Yena, South Korea
- A6. **The Future of Multi-Agent Systems in Space Operations: Ethics, Teaming, and Performance**  
Kiara Morales, Samantha Miles, Sara Scrapchansky, Liam Kettle, Rydia Weiland, Kyle Wolsten, Lydia Melles, Ewart De Visser, Elizabeth Phillips, Chad Tossell, United States
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