



2026

IHIET

International

18th International Conference on

Human Interaction & Emerging Technologies (IHIET 2026)

August 25-27, 2026

Università Iuav di Venezia
Venice, Italy

Final Program

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IHIET 2026

Conference Reception

TUESDAY AUGUST 25, 2026 - 19:00-22:00

**RECEPTION LOCATION: HILTON MOLINO STUCKY VENICE
GIUDECCA, 810, 30133 VENEZIA VE, ITALY**

(Dress is business casual, Conference Registered Participants, Photo ID required)

Conference Organization

Host Conference Co-Chairs:

Luca Casarotto and Pietro Costa, Italy

Scientific and Technical Sessions: August 26-27, 2026

Location: Università Iuav di Venezia-Terese

Address: Dorsoduro, 2206, 30123 Venezia VE, Italy

CONFERENCE ADMINISTRATOR:

ADMIN@IHIET.ORG

CONFERENCE SUPPORT:

SUPPORT@IHIET.ORG

Scientific Tracks

IHIET 1	Human-centered Design
IHIET 2	Artificial Intelligence, Computing and Intelligent Design
IHIET 3	Augmented, Virtual and Mixed Reality Simulation
IHIET 4	Wearable Technologies, Social and Affective Computing
IHIET 5	Human-computer Interaction
IHIET 6	Human-Technology and Future of Work
IHIET 7	Emerging Technologies and Business Applications
IHIET 8	Applications in Medicine and Healthcare
IHIET 9	Management, Training and Business Applications



Conference at a Glance

Scientific and Technical Session: August 26-27, 2026
Location: Università Iuav di Venezia-Terese
Address: Dorsoduro, 2206,30123 Venezia VE, Italy

Università Iuav
di Venezia



Wednesday – Thursday, August 26-27, 2026

#	Session Title	Room	Track
Day 1: Wednesday, August 26 - Session Time: 9:00 - 10:00 (CEST)			
1	Plenary Speech and Opening Remarks	RM1	ALL
10:00 - 10:30 • Sessions Break			
Day 1: Wednesday, August 26 - Session Time: 10:30 - 11:30 (CEST)			
2	Human-centered Design: AI, Automation and UX	RM1	IHIET 1
3	Artificial Intelligence, Computing and Intelligent Design I	RM 2	IHIET 2
4	Human-centered Design: Augmented, Virtual and Mixed Reality	RM 3	IHIET 3
11:30 - 12:00 • Sessions Break			
Day 1: Wednesday, August 26 - Session Time: 12:00 -13:30 (CEST)			
5	Human-computer Interaction: AI and Performance Environments	RM 1	IHIET 5
6	Applications in Medicine and Healthcare	RM 2	IHIET 6
7	Human-Technology and Future of Work	RM 3	IHIET 7
End of Day 1 Sessions			
Day 2: Thursday, August 27 - Session Time: 8:30 - 10:00 (CEST)			
	Workshop: Complex Problem Solving: From Ambiguity to Action	RM 1	All
10:00 - 10:30 • Sessions Break			
Day 2: Thursday, August 27 - Session Time: 10:30 - 11:30 (CEST)			
8	Emerging Technologies and Business Applications I	RM 1	IHIET 10
9	Human-centered Design: Health, Safety and User Experience	RM 2	IHIET 10
10	Artificial Intelligence, Computing and Intelligent Design II	RM 3	IHIET 2
11:30 - 12:00 • Sessions Break			
Day 2: Thursday, August 27 - Session Time: 12:00 - 13:00 (CEST)			
11	Human-centered Design: Health and User Experience	RM 1	IHIET 5
12	Human-centered Design: Decoding User Preferences	RM 2	IHIET 1
13	Human-centered Design: Performance and User Experience	RM 3	IHIET 5
12:50 - 13:00 • Sessions Break			
Day 2: Thursday, August 27 - Session Time: 13:00 -14:00 (CEST)			
14	Emerging Technologies and Business Applications II	RM 1	IHIET 7
End of Day 2 Sessions			



Detailed Program

DAY 1

Welcome Remarks and Opening Session

Room: Auditorium -Terese

Opening SESSION

Opening Remarks

Plenary Session Chair(s):

Luca Casarotto and Pietro Costa, Italy

Wednesday, August 26 - 9:00 - 10:00 (CEST)

Plenary Speech: "Developing Human Computer Interaction in the Age of Artificial Intelligence"



Speaker: Dr. Ahmed Farooq, Tampere Unit of Computer Human Interaction, Tampere University, Finland



Speaker Bio: Bio: Dr. Ahmed Farooq is a Research Lead at the Tampere Unit for Computer Human Interaction (TAUCHI), Tampere University, Finland, where he leads work at the intersection of Human Computer Interaction (HCI), multimodal interaction, haptics, and artificial intelligence. His research focuses on how emerging AI and machine learning methods can be integrated with established HCI approaches to design more adaptive, intelligent, and human-centred interactive systems. With

more than 26 years of experience across computer science, electronics, and systems engineering, Dr. Farooq develops cross-disciplinary solutions for next-generation human-system interaction. He has led and contributed to international research collaborations with leading academic and industrial research groups, including Google, Meta Reality Labs, Nokia Research Labs, the Centre for Intelligent Machines at McGill University, the Haptic Interface Research Laboratory at Purdue University, ReTouch Lab at UC Santa Barbara, and the HaptoSphere Lab at Bentley University.



DAY 1		IHIET 1	Room: 1
		Human-centered Design: AI, Automation and UX	
SESSION 2			
Wednesday, August 26	Session Chair(s): Andry Rakotonirainy, Australia and Julia Kaesmayr, Austria		
10:30 - 11:30 (CEST)	Explainability in Automated Driving: From Spatial Attention to Human-Centred Reasoning Andry Rakotonirainy, Ashkan Y Zadeh, Zishuo Zhu, Djamel Benrachou, Mohammed Elhenawy, Sebastien Glaser, Xiaomeng Li, Ronald Schroeter, Melaine Gouillou, Patricia Delhomme, Australia		
	Design and Evaluation of an AI Academic Advisor: Insights from Student Interactions Aysha Almazrouei, Afra Almazrouei, Haseena Alkatheeri, Mohammad Amin Kuhail, United Arab Emirates		
	To boldly go where AI must not go alone: Designing for non-delegable human authority in AI-assisted expert work Raimund Lehle, Julia Kaesmayr, Germany		
	Integrating Three Modalities into One Experience: A Case Study of 2024 DigiWave—DdDd Liting Huang, Taiwan		
	Improving Usability in a Smart Building Ecosystem through Heuristic Evaluation and Usability Testing Rosana Alexandre, Filipe Moreira, Andre Cardoso, Manuel Alves, Ricardo Rodrigues, Ana Colim, Portugal		
	Anchored in the Learner: A Critical Review of AI Discourse in Design Education Antong Zhang, Netherlands		
DAY 1		IHIET 2	Room: 2
		Artificial Intelligence, Computing and Intelligent Design I	
SESSION 3			
Wednesday, August 26	Session Chair(s): Gustavo Afonso Novak, France and Vladimira Lipsova, Czech Republic		
10:30 - 11:30 (CEST)	Toward Reinforcement Learning for Selection and Parameterization of Appropriate Prevention Measures for Collaborative Robotic Applications Gustavo Afonso Novak, Vincent Weistroffer, Jonathan Savin, Richard Bearee, France		
	Could AI-Chatbot help with prevention of burnout syndrome? Pilot study in two Czech manufacturing companies. Vladimira Lipsova, Karolina Mrazova, Kateřina Bátorlová, Martina Sebalová, Zdenek Musil, Vladimír Musil, Nina E. Carroll, Czech Republic		
	Lamp Designs and Attention Fields: Ambient Computing for Agentic AI Ian Gonsher, Jialong Lai, Runan Wang, Ruijia Diao, Shaivi Tomar, United States		
	Augmented Intelligence and Creative Dialectics: Developing Tools for Enhanced Creativity Ian Gonsher, Changfeng Wang, Bozhou Pang, Liu Hu, Shuyi Mao, United States		

DAY 1

IHIET 3

Room: 3



Human-centered Design: Augmented, Virtual and Mixed Reality

SESSION 4

Wednesday,
August 26

**Session Chair(s): Ingvar Tjostheim, Norway and
Masayuki Ihara, Japan**

10:30 - 11:30
(CEST)

Virtuality and Reality in Designing Future Services that Utilize Past Episodes

Masayuki Ihara, Hiroko Tokunaga, Tomomi Nakashima, Hiroki Goto,
Yuuki Umezaki, Yoko Egawa, Shinya Hisano, Takashi Minato, Yutaka
Nakamura, Masashige Motoe, Shinpei Saruwatari, Japan

Meta Ray Ban Smart Glasses - Watching the Watchers
Ingvar Tjostheim, Norway

Mixed Reality-Driven Rehabilitation Using a Robotic Exoskeleton and an
Immersive Game-Based Interface

Jeronimo Rueda Giraldo, David Esteban Gonzalez Rozo, Guillermo
Andres Aguilera Hurtado, Colombia

EnviPeace - A MR-based Learning System for Environmental Peacebuilding

Elisabeth Broneder, Simone Formica, Christoph Weiß, Jaison
Puthenkalam, Sebastian Egger-Lampl, Markus Karlseder, Astrid
Holzinger, Monika Psenner, Juliana Krohn, Austria

11:30 - 12:00 • Sessions Break

DAY 1

IHIET 5

Room: 1



Human-computer Interaction: AI and Performance Environments

Session 5

Wednesday,
August 26

Session Chair(s): Hiroko Kanoh, Japan and Jona Karg, Switzerland

12:00 -13:30
(CEST)

Human-AI Role Allocation in Design Thinking: Contributions to Initiation,
Elaboration, and Decision-Making

Isabel Rodenas, Patrick Rupperecht, Austria

AI-Supported Mind Mapping for Collaborative Discussion: An Exploratory
Qualitative Classroom Study Using Personary

Hiroko Kanoh, Japan

Feedback Policy Shapes Neural Outcome Representations: Evidence From
Punishment-Based Performance Environments

Ilan Laufer, Dor Mizrahi, Inon Zuckerman, Israel

Trust in AI Revisited - The Enduring Role of Propensity to Trust

Jona Karg, Janine Jäger, Petra Maria Asprien, Switzerland

Rapid Judgment in the Age of AI: A Thin-Slice Study of Virtual Humans to
Support Caregivers

Sharon Mozgai, Lila Rabinovich, Katie Seymour, Caroline P Nguyen,
Sujeet Rao, Todd Keitz, Marco Angrisani, United States

DAY 1

IHIET 8

Room: 2



Applications in Medicine and Healthcare

SESSION 6

Wednesday,
August 26

**Session Chair(s): Rilwan Olaosun, United Kingdom and
Zain Tariq, Qatar**

12:00 -13:30
(CEST)

Framework to Support SMEs Transition from Traditional to Connected Smart
Medical Devices: Value Creation Through Data and Enhanced User
Experience

Omar Huerta, Dipo Olaosun, Jonathan Biner, Tauqeer Ali Khan, Peter
Culmer, United Kingdom

FADA: An AI-Enabled Healthcare Informatics Platform for Prenatal Ultrasound Analysis, Clinical Decision Support, and Automated Reporting

Zain Tariq, Mahmood Al Zubaidi, Marco Agus, Mowafa Househ, Qatar

Development of the Rob'Tales methodology to teach emotional and social skills to autistic adolescents

Margot Dumas, Eric Meyer, Sophie Sakka, France

AI Guided Simulated Annealing for Automated Gene Editing Design

Dai Duong Nguyen, Ryan Shaw, Kenneth Y T Lim, Singapore

Human-Centered Information Design for Toxicological Risk Communication among Domestic Workers

Mariel Garcia-Hernandez, Fabiola Cortes-Chavez, Alberto Rossa-Sierra, Gabriela Duran-Aguilar, Mexico

DAY 1

IHIET 7

Room: 3



Session 7

Human-Technology and Future of Work

**Wednesday,
August 26**

Session Chair(s): Pedro Agua, Portugal and Francois Gauthier, Canada

**12:00 -13:30
(CEST)**

Systems-of-Systems: Engineering or Construct?

Pedro Água, Anacleto Correia, António Gonçalves, Portugal

Prevention of Collisions Between Mobile Machinery and Pedestrian Workers: A Review of Proximity Detection Technologies

François Gauthier, Damien Burllet-Vienney, Chantal Gauvin, Aida Haghghi, Canada

Human Factors Challenges in Future Remote Operations for Electrified Short-Sea Ro-Ro Ferries

Yemao Man, Anders Persson, Sweden

Leadership and The Integration Challenge In Digital Transformation Of The Architecture, Engineering, Construction, And Operations (AECO) Sector

Katarina Olofsson Hallén, Sweden

Machine Learning-Based Prediction of Cybersecurity Vulnerability Severity for Enterprise Security Management

Adnan Agbaria, Iyad Suleiman, Israel

Cognitive training for adults with developmental deficits led by a socially intelligent robot

Andrej Košir, Anja Podlesek, Urban Burnik, Janez Zaletelj, Gaja Gril, Ajda Svetelsek, Slovenia

End of Day 1 Sessions

Notes:



Workshop

Workshop: Complex Problem Solving: From Ambiguity to Solution Design
**Thursday,
August 27**
Speaker: Dr. Pedro Águas, Portugal

Summary: This interactive 90 min workshop equips participants with practical tools and frameworks to navigate complex, ambiguous challenges with confidence. Unlike simple or purely technical problems, complex problems involve multiple stakeholders, competing priorities, unclear root causes, and unpredictable outcomes. Traditional linear problem-solving approaches often fall short in these situations. By using a brief case study, the participants will engage a two-step framework, which allow them to define, structure and diagnose a complex problem, as well as

methodologically design a robust solution based on cause-and-effect approaches. Participants will learn how to distinguish between simple, complicated, and complex problems, and apply a structured five-step approach to tackle real-world challenges.


**8:30 - 10:00
(CEST)**

Speaker Bio: Pedro Águas. Former Naval Officer, leading departments onboard Naval Vessels. Afterwards had a career in technological industries, at home and abroad. Has been with

the Portuguese Naval Academy since 2019, where he teaches defence systems acquisition, project management and negotiation in international context. Has been a national representative for NATO Science and technology, specifically for the field of Systems-of-Systems Concepts. Professor Pedro Águas graduated from the Portuguese Naval Academy with a degree in Naval Military Sciences, and holds a PhD in Industrial Engineering and Management from Lisbon University, where he specialised in Defence Industrial Strategy. He has an Executive MBA from AESE and IESE Business School, and splits his time among teaching, researching and supporting multinational research projects.

10:00 - 10:30 • Sessions Break


SESSION 8

Emerging Technologies and Business Applications I
**Thursday,
August 27**
Session Chair(s): Evangelos Sartinis, Greece and Thimo Florian Schindler, Germany
**10:30 - 11:30
(CEST)**

Design, Implementation and Integration of a Mobile Sensor Platform for On-Site Ship Emission Measurements

Thimo Florian Schindler, Simon Schlicht, Till Büchter, Jan-Hendrik Ohlendorf, Germany

Object Perception Pipeline for Industrial Disassembly: From 6D Pose to 3D Localization in Automotive Robotics

Evangelos Sartinis, Athina Zacharia, Maria Pateraki, Greece

Hydro Digital Twins as Emerging Technologies: An alluvial mapping of objectives across marine, coastal, and freshwater applications

Letizia Artioli, Pietro Costa, Giovanni Borgia, Italy

The Digital Conversion Gap: Why Access Does Not Guarantee Livelihood Outcomes in Emerging Economies

Mohammad Rashed Khan, Neegar Sultana, United Kingdom

Validation of a UAV-Based Digital Twin for VRU Safety in Urban Environments with Simulations

Ioannis Symeonidis, Nikolaos Angelopoulos, Maria Gkemou, Evangelos Bekiaris, Greece

Cross-Border Insolvency as a Socio-Economic Second-Chance Mechanism in the European Union

Pascal Verbracken, Switzerland

DAY 2

IHIET 7

Room: 2



SESSION 9

Human-centered Design: Health, Safety and User Experience

**Thursday,
August 27**

Session Chair(s): Shih-ping Chiu, Taiwan and Mari Myllylä, Finland

**10:30 - 11:30
(CEST)**

Narrative as a Cognitive Scaffold for Human-Centered Design Education: A Case Study of Schema Change in Interaction Design Students Shih-Ping Chiu, Wen-Huei Chou, Taiwan

Assessment-Before-Intervention: A WHO iSupport-Grounded Conversational AI System for Dementia Family Caregiver Support

Chor-Kheng Lim, Hsien-Hui Tang, and Chia-Chi Chang, Taiwan

Analyzing Stress and Perceived Safety in Human-Cobot Collaboration: The Impact of Task Proximity, Interface Cues, and System Errors

Shraga Shoval, Amir Biton, Yuval Cohen, Israel

Software Features in Speech Applications for Long-Term User Adherence: A bibliometric analysis

Dijana Plantak Vukovac, Tatjana Novosel-Herceg, Ana Karlica, Croatia

Metascience of content-based cognitive ergonomics

Pertti Saariluoma, Mari Myllylä, Jose Canas, Finland

DAY 2

IHIET 2

Room: 3



SESSION 10

Artificial Intelligence, Computing and Intelligent Design II

**Thursday,
August 27**

Session Chair(s): Tauqeer Ali Khan, United Kingdom and Kem-Laurin Lubin, Canada

**10:30 - 11:30
(CEST)**

A Modular Edge-to-Cloud Architecture for Remote Monitoring and Condition-Based Maintenance in Scalp Cooling Cyber-Physical Systems

Tauqeer Ali Khan, Omar Huerta, Dipo Olaosun, Jonathan Biner, Ertu Unver, Peter Culmer, United Kingdom

AI Collaborative and Active Learning for GIS Course with School Bus Routing Project

Ming-Der May, Taiwan

Governing Human-AI Interaction in Teams: A Framework for Preventing Knowledge Loss in Generative AI Adoption

Fabio Dos Santos Cardoso, Portugal

Governing Agentic AI in Enterprise Operations: Architectural "Rails" for Safe, Deterministic, and Compliant Autonomous Systems

Elizabeth Koumpan, Vimal Dimpi, Canada

11:30 - 12:00 • Sessions Break

DAY 2

IHIET 5

Room: 1



Human-centered Design: Health and User Experience

SESSION 11

Thursday,
August 27

**Session Chair(s): Nabil Badr, United States and
Tsung Lin Yang, Taiwan**

12:00 - 13:00
(CEST)

Investigating Sharing Intentions for Online Public Health Education Games
Tsung Lin Yang, Wenhue Chou, Taiwan

In-depth Understanding of the Life Cycle of Users' Search Behaviour and their
Cognitive Journey when Installing Apps
Adel Alhejaili, James Blustein, Canada

Sociotechnical Challenges in Remote Patient Monitoring: A Multi Stakeholder
Analysis
Nabil Badr, United States

Bridging Language Diversity through HCI and UX: Enhancing Usability and
Experience in Multilingual Web Interfaces
Anil Gupta, Kajal Pandey, India

Toward Culturally Sensitive Emotion Estimation through Multimodal Sensing
and Everyday Behavioral Cues
Meina Tawaki, Ichi Kanaya, Munenori Koyasu, Keiko Yamamoto, Japan

DAY 2

IHIET 1

Room: 2



Human-centered Design: Decoding User Preferences

SESSION 12

Thursday,
August 27

**Session Chair(s): Gail Hopkins, United Kingdom and
Yuhsin Chen, Taiwan**

12:00 - 13:00
(CEST)

Developing an Assistive Mobile Application for Elderly Nepali Migrants in the
UK
Prakriti Rai, Gail Hopkins, United Kingdom

Integrated Home Service Robots for Ageing in Place: A Multi-Stakeholder
Perspective on Acceptance and Care Needs in Taiwan
Yuhsin Chen, Wenhue Chou, Taiwan

From Retrieval to Verification: An Agentic Framework for Rule-Aware
Engineering Document Compliance
Ka Tai Lau, Man Chit, Jovian Cheung, Lok Him Tse, Pok Man So, Yabing
Hou, Hong Kong Sar China

Development of digital skills for sustainable fashion design projects: a case
study of Portuguese brand
Marta Bicho, Teresa Raquel Barata, Rui Miguel, Madalena Pereira,
Portugal

Architecting Digital Educational Escape Rooms: A Framework for Instructional
Orchestration, Role-Based Collaboration, and AI-Supported Learning
Vasiliki Konstantopoulou, Foteini Paraskeva, Greece

DAY 2

IHIET 5

Room: 3



Human-centered Design: Performance and User Experience

SESSION 13

Thursday,
August 27

Session Chair(s): Kei Shimonishi, Japan and Ahmed Farooq, Finland

12:00 - 13:00
(CEST)

PathFinder: Haptic Wrist Guidance for Ambiguous Pedestrian Routes
Richa Singh, Mohit Nayak, Ahmed Farooq, Jakub Tkacz, Mounia Ziat,
Roope Raisamo, Finland

Analyzing the Viscoelastic Correspondence Between Facial Electromyography and Facial Appearance During Smiling

Kei Shimonishi, Takuma Kogo, Kazuaki Kondo, Hirotada Ueda, Yuichi Nakamura, Japan

Past and future human-machine interfaces - a matter of present concern?

Yann Kowalczyk, Jan Holub, Czech Republic

User Experience Assessment for Smart Products in IoT Environments: A Systematic Review

Agnese Azzola, Venanzio Arquilla, Lucia Rampino, Italy

A Rule-Based Framework for Ergonomic Lifting Risk Assessment via Video Analytics

Kung-Jeng Wang, Truong Kim Tien, Taiwan

DAY 2

IHIET 7

Room: 1



Emerging Technologies and Business Applications II

SESSION 14

**Thursday,
August 27**

Session Chair(s): Pascal Verbracken, Switzerland and Mohammad Rashed Khan, United Kingdom

**13:00 -14:00
(CEST)**

Tort-Based Claims and Legal Divergence in EU Insolvency Systems: Towards a Framework for Trust and Stability in Cross-Border Contexts

Pascal Verbracken, Switzerland

Teaching with Passion, Assessing with Reluctance in the Age of AI: Exploring Educators Experiences of Teaching, Marking, and Algorithmic Assistance

Themba Ndlovu And Hope Iyobosa Izevbigie, Themba Ndlovu, United Kingdom

Governing Human-AI Interaction in Teams: A Framework for Preventing Knowledge Loss in Generative AI Adoption

Fabio Dos Santos Cardoso, Portugal

Towards Sustainability-Oriented Tourism Marketing: Insights from Industry 5.0 Paradigm Shifts

Mohammad Rashed Khan, Neegar Sultana, United Kingdom

The Changing Landscape of Occupational Health and Safety in Mining: Challenges Posed by Emerging Technologies

Seyedeh Arezoo Baghaei Naeini, Adel Badri, François Gauthier, Canada



Poster Demonstrations

Wednesday - Thursday, August 26-27 [10:30 - 13:00]

A-1

Affordance Detection in Atypical Architectural Spaces Using Behavior Pattern Recognition

Yun Gil Lee, South Korea

A-2

Legislative Support System to Assist in the Transfer of Skills for Municipal System Design and Ordinance Drafting

Tokuyasu Kakuta, Daichi Saito, Japan

A-3

Circuit-Based Design of Battery-Free Backscatter Communication Between Wearable and Implantable Devices

Miyu Kodama, Dairoku Muramatsu, Japan

A-4

A Multimodal, Uncertainty-Aware, and Transparent AI Grading Tool for Scalable Automated Grading in AI and Data Science Higher Education

Olivia Dias, Cynthia Breazeal, Kantwon Rogers, United States

Call for Papers

Please join us for the

19th International Conference on
**Human Interaction and
Emerging Technologies
(IHIET-AI 2027)**

**Artificial Intelligence &
Future Applications**

April 5-7, 2027

**Palma de Mallorca
Spain**

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Call for Papers

Please join us for the

20th International Conference on

Human Interaction and Emerging Technologies (IHIET-FS 2027)

Future Systems and
Design Applications

June 24-25, 2027



Cambridge University
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