

Virtual

WANTAR S

Internationa

4th International Conference on Human Interaction and **Emerging Technologies: Future Applications**

XIXIX

Fina Program April 28-30, 2021

Strasbourg, France

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Opening Plenary Session and Keynote Address

13:30-15:00 Wednesday, April 28, 2021, Virtual conference Room: Strasbourg Virtual conference program schedule is listed in Eastern Daylight Time (EDT) - New York Timezone

Keynote Address

Wednesday, April 28, 2021 at 13:30-15:00 EDT

Title:

The Neuroscience of Design: Neurosciense of Emotions to Design Better Products and Services



Speaker:

Dr. Tareq Ahram, Science and Technology Advisor, USA

Neuro Design is a new and growing field that applies insights from the mind sciences to help craft more effective designs. Today, businesses of all sizes generate a great deal of creative content. Globally, all companies, started now to use neuroscience research and theories to optimize their services and content. Neuro Design opens up this new world for innovative design theories and recommendations, and describes insights from the growing field of neuro-aesthetics and neuro-marketing that will enable readers to enhance customer engagement and profitability.



Access to the Virtual Conference Scientific and Technical Program will be Available through the IHIET 2021 Submission System.

DETAILED ACCESS FOR ALL SESSIONS WILL BE SENT TO REGISTERED PARTICIPANTS BY EMAIL.

VIRTUAL CONFERENCE PROGRAM SCHEDULE IS LISTED IN EASTERN DAYLIGHT TIME (EDT) - NEW YORK TIMEZONE

Conference rganization

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Conference Tracks

Acronym	Ткаск
IHIET 1	Augmented Human Research: Applications in Sport and Medicin
IHIET 2	Human-centered Design
IHIET 3	Artificial Intelligence and Computing
IHIET 4	Augmented, Virtual and Mixed Reality Simulation
IHIET 6	Human–computer Interaction
IHIET 7	Healthcare and Medical Applications
IHIET 9	Human-Technology and Future of Work
IHIET 10	Emerging Technologies
IHIET 11	Management, Training and Business Applications

Conference

Virtual conference program schedule is listed in Eastern Daylight Time (EDT) - New York Timezone

	т	hursday, A	April 29
#	Title	Virtual Room	Track
	Session Time: 9:00 - 11:00 (EDT)		
1	IHIET 2: Human-centered Design I	Nice	IHIET 2
2	IHIET 1: Augmented Human Research Applications	Cannes	IHIET 1
3	IHIET 3: Artificial Intelligence and Computing I	Paris	IHIET 3
	11:00 - 11:30 (EDT)		
	Session Time: 11:30 -13:30 (EDT)		
4	IHIET 4: Augmented, Virtual and Mixed Reality Simulation	Nice	IHIET 4
5	IHIET 5: Wearable Technologies Applications	Cannes	IHIET 5
6	IHIET 6: Human–computer Interaction I	Paris	IHIET 6
	13:30 - 14:30 • Lunch Break		
	Session Time: 14:30 -16:30 (EDT)		
15	IHIET 7: Healthcare and Medical Applications I	Nice	IHIET 7
16	IHIET 9: Human-Technology and Future of Work I	Cannes	IHIET 9
17	IHIET 10: Emerging Technologies	Paris	IHIET 10

		Friday, A	April 30
#	Title	Virtual Room	Track
	Session Time: 9:00 - 11:00 (EDT)		
11	IHIET 11: Management, Training and Business Applications	Nice	IHIET 11
12	IHIET 2: Human-centered Design II	Cannes	IHIET 2
13	IHIET 3: Artificial Intelligence and Computing II	Paris	IHIET 3
11:00 - 11:30 (EDT)			
	Session Time: 11:30 - 13:30 (EDT)		
14	IHIET 6: Human–computer Interaction II	Paris	IHIET 6
	Lunch Break: 13:30 - 14:30 (EDT)		
	Session Time: 14:30 -16:30 (EDT)		
18	IHIET 6: Human–computer Interaction III	Cannes	IHIET 6

1	IHIET 2: Human-centered Design I Session Chair(s): Myriam Squillaci, Switzerland and Torsten Werkmeister, Germany
9:00 - 11:00 (EDT) - NICE	 Effectiveness of video modelling to improve playing skills of children with autism spectrum disorders Myriam Squillaci, Switzerland Interaction design patterns for International Data Space-based ecosystems Torsten Werkmeister, Germany Towards Human-Centered Design of Workplace Health Stimulation Interventions: Investigation of Factors Contributing to Office Workers' Exercise Behavior Tianmei Zhang, Jaap Ham, China User-Centered Optimization System at Workshop Level for more Energy-Efficient Machine Tool Operation Thore Gericke, Alexander Mattes, Benjamin Overhoff, Lisa Rost, Germany Display of Range Changes in E-Trucks: An Empirical Investigation of Three Concept Variants Pia Dautzenberg, Gudrun M. I. Voß, Philip Westerkamp, Sabine Bertleff, Stefan Ladwig, Germany Acceptance of Smart Automated Comfort Functionalities in Vehicles Maria Guinea, Marco Stang, Irma Nitsche, Eric Sax, Germany Software Instruments for Management of the Design of Educational Video Games Yavor Dankov, Boyan Bontchev, Bulgaria
2	IHIET 1: Augmented Human Research Applications Session Chair(s): Marco Roccetti, Italy and Rahul Kumar Ray, India
9:00 - 11:00 (EDT) - CANNES	Modeling COVID-19 Diffusion with Intelligent Computational Techniques Is Not Working. What Are We Doing Wrong? Marco Roccetti, Giovanni Delnevo, Italy Spatial Summation of Electro-Tactile Displays at Subthreshold Rahul Kumar Ray, Manivannan M, India Predicting psychological pathologies from electronic medical records Chaimae Taoussi, Imad Hafidi, Abdelmoutalib Metrane, Abdellatif Lasbahani, Morocco
3	IHIET 3: Artificial Intelligence and Computing I Session Chair(s): Nicolas Crausaz, Switzerland and Arianit Kurti, Sweden
9:00 - 11:00 (EDT) - PARIS	 Natural Language Understanding (NLU) on the Edge Nicolas Crausaz, Jacky Casas, KARL DAHER, Omar Abou Khaled, Elena Mugellini, Switzerland Increasing the understandability and explainability of Machine Learning and Artificial Intelligence solutions: A Design Thinking Approach Arianit Kurti, Fisnik Dalipi, Mexhid Ferati, Zenun Kastrati, Sweden Introduction of an algorithm based on convolutional neural networks for an automated online correction of braided cardiovascular implants Benedikt Haas, Marco Stang, Valentin Khan-Blouki, Eric Sax, Germany Towards a General and Complete Social Assistive Robotic Architecture Bilal hoteit, Ahmad faour, Ali Abdallah, Alex Awada, Alex Sorici, Adina Florea, Romania Optimal prediction using artificial intelligence application Marwan Ashour, Iman Amer Hameed Dahhan, Iraq
	11:00 - 11:30 (EDT)

4	IHIET 4: Augmented, Virtual and Mixed Reality Simulation Session Chair(s): Emmanouil Zidianakis , Greece and Harald Schaffernak, Austria
11:30 -13:30 (EDT) - NICE	 Technological framework for rapid prototyping of X-reality applications for interactive 3D spaces Emmanouil Zidianakis, Antonis Chatziantoniou, Antonis Dimopoulos, George Galanakis, Andreas Michelakis, Vanesa Neroutsou, Stavroula Ntoa, Spiros Paparoulis, Margherita Antona, Constantine Stephanidis, Greece Design and Evaluation of an Augmented Reality Application for Landing Training Harald Schaffernak, Birgit Moesl, Wolfgang Vorraber, Reinhard Braunstingl, Ioana Victoria Koglbauer, Thomas Herrele, Austria Digital Poetry Circuit: Methodology for cultural applications with AR in public spaces Vladimir Souza, Eduardo Oliveira, Luiz Araújo, Brazil Virtual Collection as the Time-shift Appreciation: The Experimental Practice-led Research of Automated Marionette Hsiao Ho-Wen Project Chih-Yung Chiu, Taiwan Virtual Reality Environment as a developer of working competences Jorge A. Gonzalez-Mendivil, Miguel X Rodríguez-Paz, Israel Zamora-Hernandez, Mexico Extended Reality in Business-to-Business Sales: An Exploration of Adoption Factors Heiko Fischer, Sven Seidenstricker, Jens Pöppelbuß, Germany
5	IHIET 5: Wearable Technologies Applications Session Chair(s): Gabriela Reyes Zarate, Mexico and Afsaneh Doryab, USA
11:30 -13:30 (EDT) - CANNES	Ergonomic assessment based on IoT wearable device Jorge Corichi-Herrejón, Andrea Santiago-Pineda, Begoña Begoña Montes Gómez, Ana Sofía Juárez-Cruz, Gabriela G. Reyes-Zárate, Jesus Moreno, Daniel Pérez-Rojas, Mexico Understanding Health and Behavioral Trends of Successful Students through Machine Learning Models Abigale Kim, Fateme Nikseresht, Janine Dutcher, Michael Tumminia, Daniella Villalba, Sheldon Cohen, Kasey Creswell, David Creswell, Anind K. Dey, Jennifer Mankoff, Afsaneh Doryab, United States Towards a framework for emotional tactile interaction design Chor-Kheng Lim, Taiwan
6	IHIET 6: Human–computer Interaction I Session Chair(s): Soenke Zehle, Germany and Martin Forsberg Lie, Norway
11:30 -13:30 (EDT) - PARIS	 Co-Creating Value with the Cooperative Turn: Exploring Human-Machinic Agencies through a Collective Intelligence Design Canvas Soenke Zehle, David Crombie, Revathi Kollegala, Germany Video Conferencing in the Age of Covid-19: Engaging Online Interaction using Facial Expression Recognition and Supplementary Haptic Cues Ahmed Farooq, Zoran Radivojevic, Peter Mlakar, Roope Raisamo, Finland Virtual Assistant: A multi-paradigm dialog workflow system for visitor registration during a pandemic situation Martin Forsberg Lie, Petter Kvalvik, Norway Challenges of Human-computer Interaction in Foreign Language Teaching: A Case of a Russian Technological University Alexander Gerashchenko, Tatiana Shaposhnikova, Alena Egorova, Dmitry Romanov, Russia Influence of Gender, Age, and Frequency of Use on users' attitudes on Gamified Online Learning Adam Palmquist, Izabella Jedel, Sweden Personalizing fuzzy search criteria for improving user-based flexible searches Mohammad Halim Deedar, Susana Munoz-Hernandez, Spain
	13:30 - 14:30 (EDT)

Detailed Technical Program Thursday, April 29

7	IHIET 7: Healthcare and Medical Applications I Session Chair(s): Pailin Puagprakong, Thailand and Kazuo Hatakeyama, Brazil
14:30 -16:30 (EDT) - NICE	Lumbo-Pelvic-Hip Angle Changes during Upright and Free style Sitting in Office Workers with Lower Crossed Syndrome Pailin Puagprakong, Poramet Earde, Patcharee Kooncumchoo, Thailand Anthropometry of Thai wheelchair basketball athletes Pailin Puagprakong, Aris Kanjanasilanont, Raul Calderon, Thailand Thermal comfort assessment: A study on workers' satisfaction in metal industry Norma de Melo Pinto, Kazuo Hatakeyama, Brazil Analysis of ergonomic risks of drilling hammers activity in the granite mining through WinOWAS software Norma de Melo Pinto, Antonio Xavier, Thalmo Coelho, Kazuo Hatakeyama, Brazil Measuring environmental variables and proposal of determination of thermal comfort in industrial plant Norma de Melo Pinto, Antonio Xavier, Guatacara Santos, Joao Kovaleski, Silvia Gaia, Kazuo Hatakeyama, Brazil
9	IHIET 9: Human-Technology and Future of Work I Session Chair(s): 9: Human-Technology and Future of Work I
14:30 - 16:30 (EDT) - CANNES	 Design of an Extended Technology Acceptance Model for Warehouse Logistics Benedikt Mättig, Germany Use of Data Mining to identify the technological resources that contributed to school performance in large-scale evaluations of Brazilian high school. Ivonaldo Silva, Marcia Silva, Brazil The Sequence of Human's Aesthetic Preference and Products' Mechanical Property Ruimin Hao, Yong Li, Liu Fuyong, China Identifying Positive Socio-economic Factors of Worker Roles Shivam Zaveri, United States Lessons learned from distance collaboration in live culture Sven Ubik, Jakub Halak, Martin Kolbe, Jiri Melnikov, Marek Fri , Czech Republic Historical Factors in Transportation Styling Yong Li, Liu Fuyong, Ruimin Hao, China Influence of participation and tardiness to synchronous learning sessions as a motivation factor for e-learning Ernesto Hernández Martínez, Zury Mabell Sócola Juarez, Lucia Pantoja, Angélica Atoche, Walter Hernández, Peru Industry 4.0: New Industrial Context Lead to New Occupational Health and Safety Risks Mohamed Naceur Ben Aziza, Adel Badri, Foued Chihi, Canada
10	IHIET 10: Emerging Technologies Session Chair(s): Patrick Schnoell, Germany and Yasuhiro Kawahara, Japan
14:30 - 16:30 (EDT) - PARIS	 FHuman-Centered Test Setups for the Evaluation of Human-Technology Interaction in Cockpits of Highly-Automated Vehicles Patrick Schnöll, Germany Blockchain 3.0: Internet of Value - Human Technology for the Realization of a Society Where the Existence of Exceptional Value is Allowed Junichi Suzuki, Yasuhiro Kawahara, Japan Forgotten people – how national Al-strategies pay attention to users Pertti Saariluoma, Henrikki Salo-Pöntinen, Finland Management aspects in the higher education quality assurance system Yuliya Zhuravel, Nazariy Popadynets, Inna Irtyshcheva, Ihor Stetsiv, Iryna Stetsiv, Iryna Hryhoruk, Yevheniya Boiko, Iryna Kramarenko, Nataliya Hryshyna, Antonina Trushlyakova, Ukraine

11	IHIET 11: Management, Training and Business Applications Session Chair(s): Izabella Jedel, Sweden and Daniel Lafond, Canada
9:00 - 11:00 (EDT) - NICE	 Factors Related to the Use and Perception of a Gamified Application for Employee Onboarding Izabella Jedel, Adam Palmquist, Sweden Multi-objective schedule optimization for ship refit projects: Toward geospatial constraints management Daniel Lafond, Dave Couture, Justin Delaney, Jessica Cahill, Colin Corbett, Gaston Lamontagne, Canada Gender approach to studying history of social work of Ukraine Oksana Kravchenko, Olha Svyrydiuk, Iryna Karpych, Olha Boiko, Ukraine Training Students for Work with Emerging Technologies in a Technology Park Environment Tatiana Shaposhnikova, Alexander Gerashchenko, Alena Egorova, Vyacheslav Minenko, Russia BIASMAP – Developing a visual typology and interface to explore and understand decision-making errors in management Christian Muntwiler, Martin Eppler, Switzerland Mechanisms to manage the regional socio-economic development and efficiency of the decentralization processes Inna Irtyshcheva, Iryna Kramarenko, Taras Vasyltsiv, Yevheniya Boiko, Olena Panukhnyk, Nataliya Hryshyna, Oryslava Hr fsk , Olena Ishchenko, Nataliya Tubaltseva, Ihor Sirenko, Nazariy Popadynets, Iryna Hryhoruk, Ukraine
12	IHIET 2: Human-centered Design II Session Chair(s): Marco Käppler, Germany and Igor Škorić, Croatia
9:00 - 11:00 (EDT) - CANNES	 Relation between Usability and Accessibility: A Case Study in Peruvian E-Commerce Websites Freddy Paz, Freddy Paz, Peru Design of Children's Creative Toys Based on Cultural Experience Jinwu Xiang, Huajie Wang, China Designing Software Instruments for Analysis and Visualization of Data relevant to Playing Educational Video Games Yavor Dankov, Boyan Bontchev, Bulgaria Fashion technology – What Are the Limits of Emerging Technological Design Thinking? Pertti Saariluoma, Rebekah Rousi, Hanna-Kaisa Alanen, Finland Green densification strategies in urban areas for psychophysical-social wellbeing Cristiana Cellucci, Michele Di Sivo, Italy Built environment design and human interaction: a demanded arrangement for humanised cities Cristina Caramelo Gomes, Portugal Analysis of color control and humanized design in ship cabin environment Liu Fuyong, Yong Li, Ruimin Hao, China
13	IHIET 3: Artificial Intelligence and Computing II Session Chair(s): Marco Stang, Germany and Tej Samani, United Kingdom
9:00 - 11:00 (EDT) - PARIS	Improving the retention and progression of learners through intelligent systems for diagnosing metacognitive competencies – a case study in UK Further Education Tej Samani, Ana Isabel Canhoto, Esin Yoruk, United Kingdom Intelligent control of HVAC systems in electric buses Martin Sommer, Carolin Junk, Tobias Rösch, Eric Sax, Germany Integrity Mechanism of Artificial Intelligence for Person's Auto-Poiesis Nicolay Vasilyev, Vladimir Gromyko, Stanislav Anosov, Russia An exploration of one-shot learning based on cognitive psychology Dingzhou Fei, China CAGEN - Context-Action Generation for testing self-learning functions Marco Stang, Maria Guinea, Eric Sax, Germany

11:00 - 11:30 (EDT)	
14	IHIET 6: Human-computer Interaction II Session Chair(s): Karl Daher, Switzerland and Nadine Flegel, Germany
11:30 - 13:30 (EDT) - NICE	Virtual Reality to Improve Human Computer Interaction for Art Fayez Chris Lteif, Karl Daher, Leonardo Angelini, Elena Mugellini, Omar Abou Khaled, Hayssam Hajj, Lebanon A Gaze-Supported Mouse Interaction Design Concept for State-of-the-Art Control Rooms Nadine Flegel, Christian Pick, Tilo Mentler, Germany Meeting the Growing Needs in Scientific and Technological Terms with China's Terminology Management Agency - CNCTST Jiali Du, Christina Alexandris, Yajun Pei, Yuming Lian, Pingfang Yu, China Exploring the Effectiveness of Sandbox Game-based Learning Environment for game design course in higher education Tengfei Xian, China Exploring Methods of Combining Eye Movement and Facial Expression for Object Selection Qing Xue, Qing Ji, Jia Hao, China Testing a Trojan Horse: Research with City Information Modeling (CIM) and the Design Ethics Gonçalo Falcão, José Beirão, Portugal
	13:30 - 14:30 (EDT)
18	IHIET 6: Human–computer Interaction III Session Chair(s): Jin Zhou, China and Ananga Thapaliya, Russia
14:30 - 16:30 (EDT) - CANNES	Human computer interaction design of online shopping platform for the elderly based on flow theory Jin Zhou, Meiyu Zhou, China User experience evaluation of a smoking cessation app in people who are motivated to quit Ananga Thapaliya, Kusal Kc, Prabesh Nepal, Russia The correlation of biscuit packaging image based on visual - taste synesthesia psychology Jiamu Liu, China Human error analysis, management and application for airborne system of civil aircraft Kun Han, China

Interactive Poster Demonstrations

Posters will be displayed Thursday, April 29, 2021 and Friday, April 30, 2021. Virtual Conference program schedule is listed in Eastern Standard Time (EDT) -New York Timezone

THURSDAY, APRIL 29, 2021 - FRIDAY, APRIL 30, 2021 Session Time: 10:30 - 13:30 (EDT)

A1. Supplementing Machine Learning with Knowledge Models Towards Semantic Explainable AI

Jennifer Sander, Achim Kuwertz, Germany

- A2. Validation of the JiBuEn® system in measuring gait parameters Shuai Tao, China
- A3. Towards Augmented Reality-based Remote Family Visits in Nursing Homes Eva Abels, Alexander Toet, Audrey van der Weerden, Bram Smeets, Tessa Klunder, Hans Stokking, Netherlands
- A4. Emergency information transmission based on BeiDou(BD) short message system

Liang Dong, Jingjing Mao, Pincan Su, Jin ou Chen, Changqin Pu, Zhengwu Pu, China

- A5. Health and Safety Management at Workplaces Through Interactive Tools Karin Reinhold, Sigrid Kontus, Estonia
- A6. Smart Meeting Room Monitoring System with Sanitizing Alerts Haroon Mohammad Sarwar, Muhammad Umar, William Svea-Lochert, Norway
- A7. The effect of Outdoor monitor on People's Attention Chau Tran, Islam Tariq, Waqas Hameed Muhammad, Bilal Aslam Ahmad, Norway
- A8. Assisting People During COVID-19 by Data Vizualisation and Design Ida Christine Karlsen, Sundarrajan Gopalakrishnan, Syeda Miral Kazmi, Godavari sandula, Norway

THURSDAY, APRIL 29, 2021 - FRIDAY, APRIL 30, 2021 Session Time: 14:30 - 16:30 (EST)

- B1. Combining Weather and Pollution Indicators with Insurance Claims on Identifying and Predicting Asthma Prevalence and Hospitalizations Divya Mehrish, J. Sairamesh, Laurent Hasson, Monica Sharma, United States
- B2. Exploiting Home Infrastructure Data for the good: Emergency Detection by reusing existing Data Sources Sebastian Wilhelm, Germany
- B3. Acceptance and Practically of Voice Assistance Systems in the everyday life of seniors: A study design

Dietmar Jakob, Germany

- B4. Real-Time Covid-19 Risk Level Indicator for the Library Users Arsalan Sadiq, Maaz Ahmed Khan, Norway
- B5. Pilot's visual eye-tracking and biological signals: Can computational vision toolbox help predict human behavior in a Flight Test Campaign? Marcela Di Marzo, José Scarpari, Jorge Bidinotto, Brazil
- B6. A smart mirror to encourage independent hand washing for children Nils-Christian W. Rabben, Stine Aurora Mikkelsplass, Norway
- B7. Effect of guiding information from the elbow to foot proprioception during horizontal perceptual tasks in individuals with impaired vision Tadashi Uno, Tetsuya Kita, Ping Yeap Loh, Satoshi Muraki, Japan
- B8. A smart chair alert system for social distance implementation for COVID-19 Waseem Hussain, Ahmed Iftikhar, Simen Grøndalen, Norway





5rd International Conference on Human Interaction and Emerging Technologies

August 27-29, 2021 Fondation EFOM Boris Dolto, Paris, France

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