



# 2019 **IHiet** International

1<sup>st</sup> International Conference on

## Human Interaction and Emerging Technologies

August 22-24, 2019

Université Côte d'Azur, Nice, France



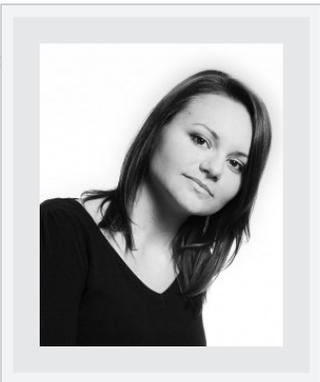
# Final Program

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

# Opening Plenary Session and Keynote Address

13:30-15:00 August 22, 2019,  
Amphitheatre (Level 1), Université Nice Sophia-Antipolis  
IAE Nice Graduate School of Management,  
Université Nice Sophia-Antipolis - St Jean d'Angély, Nice, France,  
24 Avenue des Diables Bleus, 06300 Nice, France

**THE FUTURE OF EMERGING TECHNOLOGIES  
- HYBRID REALITY AND ARTIFICIAL INTELLIGENCE**



## Co-Keynote Address

**DESIGNING THE FACE OF AI**

**Milica Pavlovic**

Politecnico di Milano, Italy/MIT Design Lab, USA.

# Conference Reception/Banquet

**THURSDAY, AUGUST 22, 2019 AT 18:00 - 22:00**

**SALON ROYAL, LE NEGRESCO HOTEL**

**ADDRESS: LE NEGRESCO HOTEL, 37, PROMENADE DES ANGLAIS 06000 NICE, FRANCE  
37, PROMENADE DES ANGLAIS 06000 NICE, FRANCE**

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

# Conference at a Glance

## REGISTRATION DESK OPEN:

**IHIET2019  
REGISTRATION DESK**

Thursday, August 22.....9:00 - 15:00  
Friday, August 23.....9:00 - 15:00  
Saturday, August 24.....9:00 - 15:00

### Thursday, August 22

#	TITLE	ROOM	TRACK
	13:30 - 15:00 - Plenary Session and Keynote Address Conference Address: IAE Nice Graduate School of Management, Université Nice Sophia-Antipolis - St Jean d'Angély, Nice, France, 24 Avenue des Diables Bleus, 06300 Nice, France		ALL
	18:00 - 22:00 - Conference Reception - Salon Royal, Le Negresco Hotel. Reception Address: Le Negresco Hotel, 37, Promenade des Anglais 06000 Nice, France (Dress is business casual, Conference Registered Participants, Photo ID required).		ALL

### Friday, August 23

#	TITLE	ROOM	TRACK
<b>Session Time: 9:00 - 11:00</b>			
1	Human-centered Design I	Paris	IHIET 1
2	Computation and Intelligent Design I	Reims	IHIET 2
3	Augmented, Virtual and Mixed Reality Simulation I	Cannes	IHIET 3
4	Wearable Technologies, Social and Affective Computing I	Nice	IHIET 4
5	Human-computer Interaction I	Leon	IHIET 5
<b>11:00 - 11:30 • Coffee Break - Refreshments will be provided</b>			
<b>Session Time: 11:30 -13:30</b>			
6	Medicine, Biomechanics, Sports and Healthcare I	Paris	IHIET 6
7	Human-Technology and Future of Work I	Reims	IHIET 7
8	Emerging Technologies and Business Applications I	Cannes	IHIET 8
9	Human-centered Design II	Nice	IHIET 1
<b>13:30 - 14:30 • Lunch Break</b>			
<b>Session Time: 14:30 -16:30</b>			
11	Augmented, Virtual and Mixed Reality Simulation II	Paris	IHIET 3
13	Human-computer Interaction II	Cannes	IHIET 5
14	Medicine, Biomechanics, Sports and Healthcare II	Nice	IHIET 6
15	Human-Technology and Future of Work II	Leon	IHIET 7
<b>16:30 - 17:00 • Coffee Break - Refreshments will be provided</b>			

# Conference at a Glance

**Saturday, August 24**

#	TITLE	ROOM	TRACK
<b>Session Time: 9:00 - 11:00</b>			
16	Emerging Technologies and Business Applications II	Paris	IHIET 8
17	Human-centered Design III	Reims	IHIET 1
19	Human-computer Interaction III	Nice	IHIET 5
<b>11:00 - 11:30 • Coffee Break - Refreshments will be provided</b>			
<b>Session Time: 11:30 - 13:30</b>			
21	Emerging Technologies and Business Applications III	Paris	IHSI 8
22	Human-centered Design IV	Reims	IHSI 1
23	Human-computer Interaction IV	Cannes	IHSI 5
24	Emerging Technologies and Business Applications IV	Nice	IHSI 8
25	Human-centered Design V	Leon	IHSI 1
<b>13:30 - 14:30 • Lunch Break</b>			
<b>Session Time: 14:30 - 16:30</b>			
29	Emerging Technologies and Business Applications VI	Cannes	IHSI 8
31	Emerging Technologies and Business Applications VII	Leon	IHSI 8
<b>16:30 - 17:00 • Coffee Break - Refreshments will be provided</b>			

# Conference Tracks

ACRONYM	TRACK
IHIET 1	Human-centered Design
IHIET 2	Computation 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	Applications in Medicine, Biomechanics, Sports and Healthcare
IHIET 7	Human-Technology and Future of Work
IHIET 8	Emerging Technologies and Business Applications

# Detailed Technical Program

Friday, August 23

Friday, August 23

1	<p><b>IHIET 1: Human-centered Design I</b> Co-Chairs: Ole Goethe, Norway and Tobias Hecht, Germany</p>
9:00 - 11:00 - PARIS	<p>From Aggregation to Navigation: Large Image Collections Seeking and Exploration Ole Goethe, Norway</p> <p>From apology to compensation; A multi-level taxonomy of trust reparation for highly automated virtual assistants Fernando Galdon, Stephen Wang, United Kingdom</p> <p>Addressing accountability in highly autonomous virtual assistants Fernando Galdon, Stephen Wang, United Kingdom</p> <p>Levels of Driving Automation from a User's Perspective: How Are the Levels Represented in the User's Mental Model? Hendrik Homans, Jonas Radlmayr, Klaus Bengler, Germany</p> <p>What Do You Do? An Analysis of Non-Driving Related Activities During a 60 Minutes Conditionally Automated Highway Drive Tobias Hecht, Anna Feldhütter, Kathrin Draeger, Klaus Bengler, Germany</p> <p>Social Robots: Development and Evaluation of a Human-Centered Application Scenario Kaspar Kaufmann, Eleni Ziakas, Marco Catanzariti, Giancarlo Stoppa, Roger Burkhard, Hartmut Schulze, Alexandra Tanner, Switzerland</p>
2	<p><b>IHIET 2: Computation and Intelligent Design I</b> Co-Chairs: Hatem Halaoui, Lebanon and Abrar Hussain, Hungary</p>
9:00 - 11:00 - REIMS	<p>An Optimal Real-Time Solution for Limited-TSP: Using Smart Algorithms to find an Optimal TSP Real-Time solution over Limited Destinations Hatem Halaoui, Lebanon</p> <p>Data driven arithmetic fuzzy control using the Distending function. József Dombi, Abrar Hussain, Hungary</p> <p>A Heuristic Fuzzy Algorithm for Hardware Engineers Assignment in University Sectors Senthilrajan Agniraj, India</p> <p>Research on Enterprise Security Early Warning System Architecture Based on Internet of Things Lan Liyun, Yunjiang Liu, Xue-Bo Chen, China</p> <p>The Impact of Different Levels of Creative Thinking Members in Group Collaboration Based on Semantic Link Zhengyu Wang, Meiyu Zhou, Xiangyu Liu, China</p> <p>Solving Game theory problems using linear programming &amp; Genetic algorithms Marwan Ashour, Iman Amer Hameed Dahhan, Sahar Alqabily, Iraq</p>
3	<p><b>IHIET 3: Augmented, Virtual and Mixed Reality Simulation I</b> Co-Chairs: Pawel Kobylinski, Poland and Chia-Chi Mao, Taiwan</p>
9:00 - 11:00 - CANNES	<p>Visual Attention Convergence Index for Virtual Reality Experiences Pawel Kobylinski, Grzegorz Pochwatko, Poland</p> <p>Augmented reality and 3D Visualization effects to enhance battlefield situational awareness Chia-Chi Mao, Fei-Yi Chen, Taiwan</p> <p>Design of virtual manikins in spaces with complex topology and high density of occupation Eusébio Conceição, João Gomes, Maria Inês Conceição, Maria Manuela Lúcio, Ángel Álvarez-Corbacho, Portugal</p> <p>The effects of virtual reality learning environments on improving the retention, comprehension, and motivation of medical school students Neil Gomes, Yiping Lou, Viraj Patwardhan, Timothy Moyer, Victoria Vavala, Cacilda Barros, United States</p> <p>AugmentedBook: A collaborative e-learning Augmented reality platform Nouf Matar Alzahrani, Sonia Lajmi, Saudi Arabia</p> <p>Investigating the relationship between students' preferred learning style on their learning experience in Virtual Reality (VR) Learning Environment Shiva Pedram, Sarah Howard, Ken Kencevski, Pascal Perez, Australia</p>

<b>4</b>	<p><b>IHIET 4: Wearable Technologies, Social and Affective Computing I</b> Co-Chairs: Leszek Nowak, Poland and Alessandro Ledda, Italy</p>
9:00 - 11:00 - NICE	<p><b>Innovative wearable systems for improving workers' safety</b> Alessandro Ledda, Raffaele Palomba, Italy</p> <p><b>Applying Oculography and Biosignals Measurements to Gameplay Modes Analysis</b> Iwona Grabska-Gradzi ska, Leszek Nowak, Jan Argasi ski, Poland</p> <p><b>Research on the Netizens Trust Model in Social Network Dissemination</b> Dong Yunqi, Tao Chi, Xue-Bo Chen, China</p> <p><b>Use of Wearable Technologies with Machine Learning to understand university student learning behaviours to predict students at risk of failing</b> Aidan Mcgowan, United Kingdom</p> <p><b>Multimedia Exposure Model via Online Crowdsourcing Observational Study</b> Evin Aslan Oguz, Andrej Košir, Slovenia</p> <p><b>Integrating Trust in Automation into Driver State Monitoring Systems</b> Jaume Perelló-March, Christopher Burns, Mark Elliott, Stewart Birrell, United Kingdom</p>
<b>5</b>	<p><b>IHIET 5: Human-computer Interaction I</b> Co-Chairs: Frode Sandnes, Norway and Sebastian Rauh, Germany</p>
9:00 - 11:00 - LEON	<p><b>Joystick versus Mouse in First Person Shooters: Mouse is Faster than Joystick</b> Hilde Pedersen, Rein Frimannslund Refvik, Johnnadel Salita Uy, Frode Eika Sandnes, Norway</p> <p><b>Understanding Peripheral Audiences: from Subtle to Full Body Gestures</b> Francisco Javier Martinez Ruiz, Sebastian Rauh, Gerrit Meixner, Mexico</p> <p><b>Studmap 3.0 – An interoperable web-based platform for geospatial data offers in academic life</b> Stefana Cioban, Vitor Santos, Torsten Prinz, Portugal</p> <p><b>The interplay of artificial and human intelligence in radiology – Exploring socio-technical system dynamics</b> Uta Wilkens, Marc Dewey, Germany</p> <p><b>Digital Technology As A Significant Support For The Teaching Process</b> Petr Svoboda, Czech Republic</p> <p><b>Towards a Toolbox for the Development of Intercultural User Interfaces</b> Rüdiger Heimgärtner, Germany</p> <p><b>Making Mobile Map Applications Accessible for Visually Impaired People</b> Alireza Darvishy, Jasmin Frei, Hans-Peter Hutter, Switzerland</p>
11:00 - 11:30 • Coffee Break - Refreshments will be provided	
<b>6</b>	<p><b>IHIET 6: Medicine, Biomechanics, Sports and Healthcare I</b> Co-Chairs: Daniel Steffen, Germany and Eusébio Conceição, Portugal</p>
11:30-13:30 - PARIS	<p><b>A Serious Game for Thrombosis Prophylaxis - Only for the Healthy?</b> Daniel Steffen, Juliane Pietschmann, Thomas Jöllenbeck, Gabriele Bleser, Germany</p> <p><b>Ergonomic analysis of community health agents during homecare visits</b> Ana Cristina Forain Bartz, Adalgiza Mafra Moreno, Redha Taiar, Christiano Bittencourt Machado, Luis Guilherme Barbosa, Brazil</p> <p><b>Coupling of integral and differential numerical models applied in the evaluation of integral thermal comfort, air quality and Draught Risk</b> Eusébio Conceição, João Gomes, Maria Manuela Lúcio, Maria Inês Conceição, Hazim Awbi, Portugal</p> <p><b>Energy Consumption Assessment of College Tennis Players Based on Actigraph GT9X Accelerometer</b> Tianyu He, Qi Luo, China</p> <p><b>Literature review of the application of GT3X in physical activity</b> Tong Wan, Qi Luo, China</p> <p><b>Application of Computational fluid dynamics in biofluids simulation to solve actual surgery tasks</b> Alex Kuchumov, Aleksander Selyaninov, Russia</p> <p><b>Methods for Assessment of the Blood Clotting Mechanism and the Effect of Fibrinogen on the Thrombus Formation</b> Nadya Antonovamiteva, Bulgaria</p>

<b>7</b>	<p><b>IHIET 7: Human-Technology and Future of Work I</b> Co-Chairs: Shannon Salyer, USA and Thomas Suesse, Germany</p>
11:30-13:30 - REIMS	<p><b>Enhancing a Military-Civilian Crosswalk Using a Combination of System-Generated and Human Analysis</b> Shannon Salyer, Jan Bayer, Phil Lewis, United States</p> <p><b>Digital citizenship behavior in organization as indicator for actors' co-creative problem-solving in ecosystem-oriented work environments</b> Thomas Süße, Germany</p> <p><b>Assessing Trends of Digital Divide Within Digital Services in New York City</b> Trisha Sharma, Richard Legarda, Somesh Sharma, United States</p> <p><b>User Discrimination of Content Produced by Generative Adversarial Networks</b> Nicholas Caporusso, Gordon Carlson, Kelei Zhang, Daniel Jachetta, Devon Patchin, Noah Vaughn, Spencer Romeiser, Angela Walters, United States</p> <p><b>Application of a Human Factors-Integrated Information Security Framework to an Oil and Gas Organization</b> Ahmed Al-Darwish, Pilsung Choe, Qatar</p> <p><b>Development of a Stripper Machine for AI-Mabsili Dates and Evaluation of Human Interactions and Performances</b> Alaa Al Hinai, Hemanatha Jayasuriya, Oman</p>
<b>8</b>	<p><b>IHIET 8: Emerging Technologies and Business Applications I</b> Co-Chairs: Martin Eppler, Switzerland and Spencer Romeiser, USA</p>
11:30-13:30 - CANNES	<p><b>Human-in-the-Middle: Increasing Security of Two-Factor Authentication</b> Spencer Romeiser, Kingsley Udenze, Nicholas Caporusso, United States</p> <p><b>Big Data meets Big Knowledge: Design Principles for the Combination of Visual Analytics and Knowledge Visualization in Collaborative Business Contexts</b> Martin Eppler, Switzerland</p> <p><b>Potential absorptive capacity, realised absorptive capacity and innovation performance</b> Saad Yaseen, Jordan</p> <p><b>Investigating Transparency and Accountability of User Interfaces for Data Visualization: a Case Study on Crowdfunding</b> Nicholas Caporusso, Sijia Li, United States</p> <p><b>Integral model of maintenance management based on TPM and RCM principles to increase machine availability in a manufacturing company</b> Carlos Moscoso, Alex Fernandez, Gino Viacava, Carlos Raymundo, Peru</p> <p><b>Improving processes through the use of the 5S methodology and menu engineering to reduce production costs of a MSE in the hospitality sector</b> Indira Alva, Jose Rojas, Carlos Raymundo, Peru</p> <p><b>Basic Production Planning and Control Model based on Process Management to Increase the Productivity of Mango MSEs in Casma</b> Lizeth Alvarado, Juan Diaz, Juan Quiroz, Carlos Raymundo, Peru</p>
<b>9</b>	<p><b>IHIET 1: Human-centered Design II</b> Co-Chairs: Scott MacKinnon, Sweden and Susanna Aromaa, Finland</p>
11:30-13:30 - NICE	<p><b>Human Factors Perspective to Preventing Unruly Technologies</b> Scott Mackinnon, Yemao Man, Katie Aylward, Monica Lundh, Sweden</p> <p><b>Use of Robotics Laboratory Programs in Improving STEAM Outcomes in India</b> Jagannath Kallakurchi, Pradipta Banerji, India</p> <p><b>Designing a Pleasant Waiting Area for the Gastrointestinal Endoscopy Unit Based on Subjective Experiences and Needs of the Japanese People</b> Nermin Elokla, Harumi Kagawa, Japan</p> <p><b>User Experience of a Social Media Based Knowledge Sharing System in Industry Work</b> Susanna Aromaa, Maria Tsourma, Stylianos Zikos, Eija Kaasinen, Mariia Kreposna, Anastasios Drosou, Dimitrios Tzovaras, Finland</p> <p><b>Natural Human-Robot Interaction Toolkit</b> Ruslan Gaifullin, Mikhail Ivanou, Rustem Gazizov, Russia</p> <p><b>Implementing Workplace Technologies – a Motivation-Oriented Approach</b> Yvonne Schmid, Julia Auburger, Germany</p> <p><b>Ethics in Designing Intelligent Systems</b> Pertti Saariluoma, Jaana Leikas, Finland</p>

13:30 - 14:30 • Lunch Break	
<b>11</b>	<p><b>IHIET 3: Augmented, Virtual and Mixed Reality Simulation II</b> Co-Chairs: Christina Zavlanou, Cyprus and Anya Evmenova, USA</p>
14:30 - 16:30 - PARIS	<p><b>Designing Technologies for Neurodiverse Users: Considerations from Research Practice</b> Vivian Genaro Motti, Anna Evmenova, United States</p> <p><b>Virtual Reality-based simulation of age-related visual deficiencies: implementation and evaluation in the design process</b> Christina Zavlanou, Andreas Lanitis, Cyprus</p> <p><b>Exploration of Underinvestigated Indoor Environment Based on Mobile Robot and Mixed Reality</b> Aydar Akhmetzyanov, Rauf Yagfarov, Salimzhan Gafurov, Mikhail Ostanin, Alexandr Klimchik, Russia</p> <p><b>A validated failure behavior model for driver models to test automated driving functions</b> Bernd Huber, Christoph Sippl, Reinhard German, Anatoli Djanatliev, Germany</p>
<b>13</b>	<p><b>IHIET 5: Human-computer Interaction II</b> Co-Chairs: Patrick Coe, Finland and Robbert Jan Beun, Netherlands</p>
14:30 - 16:30 - CANNES	<p><b>Using Dynamic Real-time Haptic Mediation in VR and AR Environments</b> Ahmed Farooq, Patrick Coe, Grigori Evreinov, Roope Raisamo, Finland</p> <p><b>Smart Learning Environments: A blend of ICT Achievements and Smart Pedagogy for the World Sustainable Development</b> Vasiliki Karampa, Foteini Paraskeva, Greece</p> <p><b>E-Coaching as a Persuasive Support in Self-Management Programs for Health</b> Robbert Jan Beun, Netherlands</p> <p><b>Task identification framework to automatically detect anomalies in users' interactions with mobile application to support usability evaluation</b> Kateryna Sergeieva, Thierry Martial Ngondji Bitchou, Gerrit Meixner, Germany</p> <p><b>InData Envisioning &amp; Prototyping Informed by Data. A data scraping and visualization tool to support design scenarios</b> Laura Varisco, Ilaria Mariani, Stefano Parisi, Mila Stepanovic, Michele Invernizzi, Patrizia Bolzan, Italy</p> <p><b>Exploring Gesture-Based Tangible Interactions with an AI Agent</b> Milica Pavlovic, Sara Colombo, Yihyun Lim, Federico Casalegno, United States</p>
<b>14</b>	<p><b>IHIET 6: Medicine, Biomechanics, Sports and Healthcare II</b> Co-Chairs: Sara Mosleh, Italy and Justine Hellec, France</p>
14:30 - 16:30 - NICE	<p><b>A method of localization and segmentation of vertebrae in spine EOS image</b> Sara Mosleh, Pascal Bruniaux, Guillaume Tartare, France</p> <p><b>Waist movement in Postural Change-Horizontal Movement-From the middle of the bed to the edge: A Highly Cultural Caring Application</b> Tomoko Ota, Ken Ikuhisa, Xiaodan Lu, Akira Kondo, Mami Higuchi, Hiroyuki Hamada, Japan</p> <p><b>Reproducibility and reliability of embedded inertial motion sensors integrated to smart eyeglasses during Sit-to-Stand test</b> Justine Hellec, Frédéric Chorin, Andrea Castagnetti, Serge Colson, France</p> <p><b>Numerical evaluation of sport mouthguard application</b> Anna Kamenskih, Tatyana Ustugova, Alex Kuchumov, Redha Taiar, Russia</p> <p><b>Preliminary results on the assessment of temperature distribution on hands after typing on ergonomic and non-ergonomic postures</b> Bruno Erthal De Souza Vianna, Pedro Kaïque Rodrigues Leite, Emma Butterworth, Redha Taiar, Christiano Bittencourt Machado, Brazil</p> <p><b>Biomechanical analysis of the impact of Ankle Foot Orthosis on gait in patient's behaviors</b> Chiboub Adel Redha Taiar, France</p>

<b>15</b>	<b>IHIET 7: Human-Technology and Future of Work II</b> Co-Chairs: Marco Rocchetti, Italy and Daniela Constantinescu, Canada
14:30 - 16:30 - LEON	<p><b>Deep Water: Predicting Water Meter Failures through a Human-Machine Intelligence Collaboration</b> Luca Casini, Giovanni Delnevo, Marco Rocchetti, Nicolo Zagni, Giuseppe Cappiello, Italy</p> <p><b>Distributed Connectivity-Preserving Coordination of Multi-Agent Systems with Bounded Velocities</b> Yuan Yang, Daniela Constantinescu, Yang Shi, Canada</p> <p><b>Towards Educational Technologies in Language Learning for Children: A perspective of Linguistic Anthropology</b> Pingfang Yu, Jiali Du, Xinguang Li, China</p> <p><b>Universal basic income: comparative analysis of experiments</b> Svetlana Tsvirko, Russia</p> <p><b>An evolutionary approach to hyper-parameter optimization of Neural Networks</b> Marco Stang, Christopher Meier, Vinzenz Rau, Eric Sax, Germany</p> <p><b>Using Machine Learning to optimize energy consumption of HVAC systems in vehicles</b> Martin Boehme, Andreas Lauber, Marco Stang, Eric Sax, Germany</p> <p><b>Society 5.0 as a Result of the Technological Evolution: Historical Approach</b> Andreia G. Pereira, Tânia M. Lima, Fernando Charrua-Santos, Portugal</p>
16:30 - 17:00 • Coffee Break - Refreshments will be provided	

<b>16</b>	<b>IHIET 8: Emerging Technologies and Business Applications II</b> Co-Chairs: Lucero Calero, Peru and Sergio Ordoñez, Mexico
9:00 - 11:00 - PARIS	<p><b>Security System Based on STRIDE Using Artificial Intelligence</b> Sergio Ordoñez, Juan Mendoza, Omar Gonzalez, Miguel Obregon, Joaquin Lara, Mexico</p> <p><b>Lean model of services for the improvement in the times of attention of the emergency areas of the health sector</b> Lucero Calero, Aracelli Maccasi, Carlos Raymundo, Peru</p> <p><b>Design of a model of marketing a product of detection and identification with technology of positioning in interiors based on RFID</b> Amy Canepa, Grecia Rodríguez, Jose Rojas, Carlos Raymundo, Peru</p> <p><b>Continuous improvement model for inventory planning applying MRP II in small and medium sized enterprises</b> Hugo Villafuerte, Gino Viacava, Carlos Raymundo, Peru</p> <p><b>Project Planning Methodology Based on Lean Philosophy and PMBOK Guidelines for SMEs in the Electricity Sector</b> Denisse Bazán, Marco Pinedo, Jose Rojas, Carlos Raymundo, Peru</p> <p><b>Strategic Planning Model to Increase the Profitability of an HR Outsourcing SME through Digital Transformation</b> Andrea Bautista, Adriana Leon, Jose Rojas, Carlos Raymundo, Jose Alvarez, Peru</p> <p><b>Quality management model for a small enterprise of pecan farmers in Ica el Valle - Peru</b> Angello Bolaños, Luis Leiva, Fernando Sotelo, Carlos Raymundo, Peru</p>

<b>17</b>	<b>IHIET 1: Human-centered Design III</b> Co-Chairs: Charles Lamontagne, Canada and Daniel de la Flor, UK
9:00 - 11:00 - REIMS	<p><b>Motion Capturing for the Evaluation of Ergonomically Designed Guitars</b>          Stijn Verwulgen, Sofia Scataglini, Thomas Peeters, Stijn Verheyen, Emilie Van Campenhout, Steven Truijen, Belgium</p> <p><b>Impact of Disruptive Technologies on the Human Attitude</b>          Vaclav Jirovsky, Vaclav Jirovsky Jn, Czech Republic</p> <p><b>User Test: How Many Users Are Needed to Find the Psychophysiological Pain Points in a Journey Map?</b>          Charles Lamontagne, Sylvain Sénécal, Marc Fredette, Shang Lin Chen, Romain Pourchon, Yohan Gaumont, David De Grandpré, Pierre-Majorique Léger, Canada</p> <p><b>Space Architecture: The rise of a new discipline in architecture and design curricula</b>          Paolo Caratelli, United Arab Emirates</p> <p><b>Virtual Workshops on the road: co-designing with drivers, within context in real-time</b>          Daniel De La Flor Aceituno, Joseph Giacomini, Alessio Malizia, Lee Skrypchuk, United Kingdom</p> <p><b>Application of Fuzzy Evaluation Methods on Campus Security Awareness</b>          Wang Shu, Qiang Qu, Xue-Bo Chen, China</p> <p><b>Research and Improvement of Enterprise Safety Behavior Based on SEM</b>          Tong Yuqing, Shaochuan Xu, Xue-Bo Chen, China</p>
<b>19</b>	<b>IHIET 5: Human-computer Interaction III</b> Co-Chairs: Jakob Andersen, Germany and Renate Motschnig, Austria
9:00 - 11:00 - NICE	<p><b>Towards Visual Data Science - an Exploration</b>          Jakob Smedegaard Andersen, Marina Tropmann-Frick, Germany</p> <p><b>A Proposal of Human Interface for Evacuation Support System on Smartphone</b>          Shohei Taga, Munehiro Takimoto, Yasushi Kambayashi, Japan</p> <p><b>Leading Diverse Teams to Success: What are the Factors that Can Make a Difference?</b>          Renate Motschnig, Seyhan Güver, Austria</p> <p><b>What makes users adopt a new technology? Extending the Technology Acceptance Model by technology-inherent antecedents</b>          Agnieszka Paruzel, Lisa Mlekus, Dominik Bentler, Günter W. Maier, Germany</p> <p><b>Simulation of a New Airport Security Design Concept</b>          Martin Jung, Axel B. Classen, André Castro, Catarina Ferreira, Germany</p> <p><b>A pilot study on interactive information visualization of multi-dimensional data</b>          Ting Tan, Zhanxun Dong, China</p> <p><b>A data-driven methodology to assess text complexity based on syntactic and semantic measurements</b>          Diego Palma, Christian Soto, Bernardo Rizzo, Mónica Véliz, Antonio Gutiérrez, Chile</p>
11:00 - 11:30 • Coffee Break - Refreshments will be provided	
<b>21</b>	<b>IHIET 8: Emerging Technologies and Business Applications III</b> Co-Chairs: Tasos Papapostolu, Bulgaria and Angie Jalca, Peru
11:30 - 13:30 - PARIS	<p><b>Let users control their data – privacy policy-based user interface design</b>          Armin Gerl, Bianca Meier, Stefan Becher, Germany</p> <p><b>μ ADL: An Architecture Description Language for MicroServices</b>          Tasos Papapostolu, Bulgaria</p> <p><b>Adoption of snowball sampling technique with distance boundaries to assess the productivity issue faced by micro and small cocoa producers in Cusco</b>          Angie Jalca, Marco Lopez, Fernando Sotelo, Carlos Raymundo, Peru</p> <p><b>Application of lean manufacturing techniques to increase on-time deliveries: Case study of a metalworking company with a make-to-order environment in Peru</b>          Kenny Kishimoto, Gabriela Medina, Fernando Sotelo, Carlos Raymundo, Peru</p> <p><b>Management model based on the Lean Thinking method for medium-sized Peruvian companies in the apparel sector</b>          Luis Loayza, Sebastián Olave, Maribel Perez, Jose Rojas, Carlos Raymundo, Peru</p> <p><b>Management Model for Pecan Production Using Process Tools in an MSE in Peru</b>          Alejandra Muñante, Fabrizio Reyes, Fernando Sotelo, Carlos Raymundo, Peru</p>

22	<b>IHIET 1: Human-centered Design IV</b> Co-Chairs: Zuk Turbovich, Israel and Daniel Lafond, Canada
11:30 - 13:30 - REIMS	<p>'3DPix' – Design Thinking for Desktop Personal 3D-Printers – A Project Oriented Training Method                      Zuk Turbovich, Iko Avital, Israel</p> <p>Diurnal Temperature Variation as an Idealized Room for Different Wall Materials Using a Thermal Load Model in the Philippine Setting                      Neil Manaoat, Johnrob Bantang, Luis Maria Bo-Ot, Philippines</p> <p>Judgment analysis for real-time decision support using the Cognitive Shadow policy-capturing system                      Daniel Lafond, Katherine Labonté, Aren Hunter, Heather Neyedli, Sebastien Tremblay, Canada</p> <p>Selecting AAC Tools and Strategies for Interactions with Teachers and Students at Special Needs School for Children with Intellectual Disabilities                      Tetsuya Hiroto, Japan</p> <p>Co-creation Design Mechanism for the Online Entrepreneur Community Building                      Chen Li, China</p> <p>Genesis of attention in the process of interaction Weak visual person – Work System in a local environment                      Jorge Gil Tejada, Lorena Olmos, Mexico</p>
23	<b>IHIET 5: Human-computer Interaction IV</b> Co-Chairs: Sanjoy Ghatak, India and Johan de Heer, Netherlands
11:30 - 13:30 - CANNES	<p>Barcode Representation of Face Image Combining LGFA and Window Technique                      Sanjoy Ghatak, Debotosh Bhattacharjee, India</p> <p>Man-Machine Synchrony                      Johan De Heer, Netherlands</p> <p>User Experience Study of Live Streaming News with a Second Screen on a Mobile Device                      Chien-Hsiung Chen, Liang-Yuan Che, Taiwan</p> <p>Sonify: Making Visual Graphs Accessible                      Safinah Ali, Laya Muralidharan, Felicia Alfieri, Monali Agrawal, Jacob Jorgensen, United States</p> <p>Make me Messenger: Critiquing Children as Design Informants                      Dev Lamichhane, United Kingdom</p>
24	<b>IHIET 8: Emerging Technologies and Business Applications IV</b> Co-Chairs: Adelino Ferreira, Portugal and Edgar Wong, Peru
11:30 - 13:30 - NICE	<p>Waynergy People – Human Interaction With An Emerging Pavement Energy Harvesting Technology                      Adelino Ferreira, Francisco Duarte, Portugal</p> <p>BIG IoT – Interconnecting IoT Platforms from different domains – Final Results                      Thomas Jell, Germany</p> <p>Islamic Interbank Benchmark Rate                      Issam Tlemsani, Saudi Arabia</p> <p>Implementation of a quality management system (QMS) based on TQM principles for cocoa MSEs: A case study in Cusco, Perú                      Edgar Wong, Gianpierre Pajuelo, Fernando Sotelo, Carlos Raymundo, Peru</p> <p>State Phubbing: The Establishment And Validation of A New Scale                      Yeslam Al-Saggaf, Sarah O'Donnell, Australia</p> <p>Lean Service Quality model to improve the performance of service in automotive dealer                      Franco Valenzuela, Jeysev Estocalenko, Jose Rojas, Carlos Raymundo, Peru</p> <p>Comprehensive Management Model for Solid Waste Collection and Transportation in Peruvian Urban Municipalities                      Renato Bernal, Stephan Sánchez, David Mauricio, Carlos Raymundo, Peru</p>

<b>25</b>	<b>IHIET 1: Human-centered Design V</b> Co-Chairs: Deborah Middleton, Saudi Arabia and Nikolaos Armonis, Greece
11:30-13:30 - LEON	<p><b>Seeking Cognitive Convergence: Small group collaborative visualisation in the Library Learning Commons</b>                  Deborah Middleton, Saudi Arabia</p> <p><b>Investigating Educationally Fruitful Speech-Based Methods to Assist People with Special Needs to Care Potted Plants</b>                  Dimitrios Loukatos, Konstantinos Arvanitis, Nikolaos Armonis, Greece</p> <p><b>Towards the Linguistic Gender Differentiation in Dictionaries: A Perspective of Human Interaction in Languages</b>                  Pingfang Yu, Jiali Du, Xinguang Li, China</p> <p><b>Actuarial Models in the Design of Human-oriented Production Systems and Products</b>                  Yulia Salnikova, Evgeny Kolbachev, Russia</p> <p><b>Exploration of product design emotion based on three-level theory of emotional design</b>                  Tianjiao Zhao, Tianfei Zhu, China</p> <p><b>Transnational Communities and Vernacular Expressions in Abu Dhabi's Industrial Spaces</b>                  Mohamed El Amrousi, Mohamed Elhakeem, Evan Paleologos, United Arab Emirates</p> <p><b>Profiles of professional drivers based on drowsiness and distraction alerts</b>                  Sónia Soares, Zafeiris Kokkinogenis, Sara Ferreira, António Couto, Portugal</p>
13:30 - 14:30 • Lunch Break	
<b>29</b>	<b>IHIET 8: Emerging Technologies and Business Applications VI</b> Maurizio Caon, Switzerland and Carlos Raymundo, Peru
14:30 - 16:30 - CANNES	<p><b>Application of a management model based on DMAIC methodology to an MSE in the personal beauty sector to increase profitability</b>                  Katherine Mejía, Henry Quintanilla, Carlos Cespedes, Jose Rojas, Carlos Raymundo, Peru</p> <p><b>Systematic Layout Planning: A Research on the Third Party Logistics of a Peruvian Company</b>                  Mariela Rabanal, Sonia Zamami, Juan Quiroz, Jose Alvarez, Peru</p> <p><b>Waste Reduction Model in a Small Clothing Company—Umbrella Model</b>                  Geraldine Cueto, Yosiveth Caldas, Gino Viacava, Juan Quiroz, Jose Alvarez, Peru</p> <p><b>Designing Systems for the Digital Immortality of Intangible Cultural Heritage</b>                  Maurizio Caon, Switzerland</p> <p><b>Strategic Planning Model to Improve Competitiveness for Service Industry SMEs using the Balanced Scorecard</b>                  Miguel Casas, Maribel Perez, Jose Rojas, Jose Alvarez, Peru</p> <p><b>6TOC model for small wood furniture companies to increase machining productivity in Villa El Salvador industrial cluster</b>                  Leonel Gutierrez, Jesus Laredo, Fernando Sotelo, Carlos Raymundo, Peru</p>

**Saturday, August 24**

<b>31</b>	<p><b>IHIET 8: Emerging Technologies and Business Applications VII</b>                  Co-Chairs: Jan Piesik, Kazimierz Kosmowski, Poland and                  Christoph Mühlemeyer, Germany</p>
14:30 - 16:30 - LEON	<p><b>Complex predictive solution for computerized processes of tire industry</b>                  Jan Piesik, Kazimierz Kosmowski, Poland</p> <p><b>Analysis of the Mental Workload applied to Sorting Activity of Recyclable Materials</b>                  Hebert Roberto Silva, Brazil</p> <p><b>Assessment and Design of Employees-Cobot-Interaction</b>                  Christoph Mühlemeyer, Germany</p> <p><b>Scientific approach to hospitality in Dental clinic business</b>                  Tomoko Ota, Hideaki Sakai, Yuko Kamagahara, Hiroyuki Hamada, Japan</p> <p><b>The effect of uneven product-recall strategy on consumers in inferiorly-treated countries: An appraisal tendency perspective</b>                  Liao Junyun, Rizwan Ali, China</p> <p><b>Improvement of attention times and efficiency of container movements in a Port Terminal using a truck appointment system, LIFO management and Poka Yoke</b>                  Luis Sermeño, Jimmy Orellana, Juan Eyzaguirre, Carlos Raymundo, Peru</p> <p><b>5S Hybrid management model for increasing productivity in a textile company in Lima</b>                  Juanirene Neyra, Jose Muñoz, Juan Eyzaguirre, Carlos Raymundo, Peru</p>
16:30 - 17:00 • Coffee Break - Refreshments will be provided	

## IHIET 2019 Exhibitors

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# Interactive Poster Demonstrations

Posters will be displayed Friday, August 23, 2019 and Saturday, August 24, 2019. Posters must be removed by the end of each day/session they are scheduled to be demonstrated. Posters can be positioned starting on Saturday, August 23, 2019 8:00 a.m. and removed by the last poster session on August 24, after 16:30. Poster demonstration sessions will be at the times shown below.

## FRIDAY, AUGUST 23

**Poster Demonstration: 10:30 - 13:30**

**Room: Foyer**

- A1. Concepts for improving employee qualifications for resource-efficient chipping production  
Leif Goldhahn, Christina Pietschmann, Sebastian Roch, Robert Eckardt, Germany
- A2. User Interface Design for Remote Small Airport Operation  
Satoru Inoue, Kazuhiko Yamazaki, Taro Kanno, Japan
- A3. Development of virtual reality sports games for children with ADHD  
Yang-Kun Ou, Yu-Lin Wang, Shih-Yin Yen, Ya-Lin Chen, Taiwan
- A4. A VR/AR training simulation for non-technical skills and interoperability in crisis management and emergency response  
Isabelle Turcotte, Lucie Rivard, Harold Dumur, Jean-Pierre Verville, Sebastien Tremblay, Canada
- A5. Digital Video Tools to Support Conceptual Understanding and Creative Learning in Individuals and Groups  
Alessia Ruf, Switzerland
- A6. The utilization of virtual try on simulation applied to the fashion industry  
Yaxuan Wang, China
- A7. The use of game-based multimedia to assist the older adult in learning healthcare knowledge as a function of content type  
Dyi-Yih Lin, Taiwan
- A8. Driving disabilities of old residents with suspected dementia in the community: A screening test of stepping of the foot on the accelerator or brake  
Kenichi Meguro, Japan
- A9. Acceptability of e-health technologies: A preliminary validation of a French scale based on the unified theory of acceptance and use of technology-2  
Meggy Hayotte, Pierre Thérouanne, Karine Corrion, Fabienne d'Arripe-Longueville, France

## FRIDAY, AUGUST 23

**Poster Demonstration: 14:30 - 16:30**

**Room: Foyer**

- B1. A Study on Transparent Access to Medical Information Implementing by Automatic Authentication in Emergency Situations  
Su-Chong Joo, Gyu-Sung Ham, South Korea
- B2. Digital support in logistics of home-care nurses for disabled and elderly people  
Karin Reinhold, Piia Tint, Piret Tamme, Viiv Tuulik, Estonia
- B3. Patterns of the relationship between the anatomical formations of the chambers of the heart of human fetuses  
Galina Spirina, Russia
- B4. Health-related quality of life in male steel industry workers in Tunisia  
Amira Omrane, Chayma Harrathi, Taoufik Khalfallah, Lamia Bouzgarrou, Tunisia
- B5. Ergonomic interventional Study of Lighting atmospheres in textile company  
Amira Omrane, Asma Dimassi, Chayma Harrathi, Lamia Bouzgarrou, Tunisia
- B6. Modeling of contact interaction of an endoprosthetic knee joint  
Roman Pryazhevskiy, Ildar Akhtyamov, Anna Morgunova, Helo Mohammad Jihad, Andrey Nevzorov, Oskar Sachenkov, Russia
- B7. Quantitative Point-of-Care Opioid Detection on a Giant Magnetoresistive Sensor Platform  
Dana Kralicek, Shan Wang, USA

# Interactive Poster Demonstrations

## FRIDAY, AUGUST 23

Poster Demonstration: 14:30 - 16:30

Room: Foyer

- B8. Reliability of instrumented knee brace for measuring knee joint movement  
Nicolas Reneaud, Raphael Zory, Frédéric Chorin, Olivier Guérin,  
Pauline Gerus, France
- B9. Preventing Hospital Pressure Injuries: A Toolkit for Improving Quality of Care  
Amanda Safer, David Shapiro, Ellen Duell, Ashley Doyen, Lynn Roncalli, USA

## SATURDAY, AUGUST 24

Poster Demonstration: 10:30 - 13:30

Room: Foyer

- C1. Mutual Human-Machine Learning  
Toni Waeﬂer, Katrin Fischer, Giulio Nisoli, Adrian Campos, Dominic Gorecky,  
Switzerland
- C2. The impact of technology on the work process of the nursing team working in  
Hemodialysis  
Saturnina Martins, Marcia Silva, Ivonaldo Silva, Brazil
- C3. A Method for Audience Extending in Programmatic Advertising by Using  
Parsimonious Generalization of User Segments  
Dmitry Frolov, Zina Taran, Boris Mirkin, Russia
- C4. Implementation of a compact wearable temperature, pressure, humidity and gas  
sensing device  
Jordi Palacín Roca, David Martínez Piqué, Eduard Clotet Bellmunt,  
Marcel Tresanchez Ribes, Spain
- C5. Programming Assistant System Using Improved Flowchart for The Visually  
Impaired  
Ryo Hirakawa, Rin Hirakawa, Hideaki Kawano, Kenichi Nakashi,  
Yoshihisa Nakatoh, Japan
- C6. Study on User Experience Design Of Mobile Application Interfaces  
Taian Xu, China
- C7. Electronic Apostle Verification system  
Marika Mshvidadze, Georgia

## SATURDAY, AUGUST 24

Poster Demonstration: 14:30 - 16:30

Room: Foyer

- D1. Study of adoption factors of smart technology within tourism organizations: role  
and influence of managers in museums.  
Pierre flandrín, Belgium
- D2. Urban Transport: Comparative Study of Energy Efficiency Between Taxi Drivers  
In Salvador City, Bahia - Brazil  
Euclides Bittencourt, Cristiano Fontes, Jorge Moya, Salvador Avila,  
Adonias Maguidiel, Brazil
- D3. An Assistive Technology for Braille Users To Support Mathematical Learning:  
A Semantic Retrieval System  
Omar Bencharef, Zahra Asebriy, Morocco
- D4. Evaluating Green Light Optimum Speed Advisory (GLOSA) System in Traffic Flow  
with Variations of Information Distance  
Hironori Suzuki, Yoshitaka Marumo, Japan
- D5. Proposing a pedagogical project model for Engineering Education from the  
perspective of Industry 4.0  
Cristiano de Jesus, Portugal
- D6. A hypothetical model for reading insights within a dynamic system loop in  
Society 5.0, Japan  
Aki Nagano, Japan

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# 2020 **IHiet** International

3<sup>rd</sup> International Conference on

## Human Interaction and Emerging Technologies: Future Applications

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