

Timetable

	Tuesday	Wednesday	Thursday	Friday
8:30				
9:00		Registration	Registration	Registration
10:30		HA3L S1 BC-06-321	HA3L S5 BC-06-321	IoE S2 BC-06-321
10:50		Coffee	Coffee	
12:20		HA3L S2 BC-06-321	HA3L S6 BC-06-321	IoE S3 BC-06-321
13:30		Lunch	Lunch	DLT S1 BC-03-123A
15:00		HA3L S3 BC-06-321	Women in tech BC-06-321	SAI S1 BC-06-321
15:20		Coffee		IoE S4 BC-03-123
16:30		HA3L S4 BC-06-321	Coffee 15:30	SAI S2 BC-06-321
18:00	Early registration / Welcome reception	*Welcome / Keynote (Dr. Julie Robillard): Developing ethical ubiquitous social robots: lessons from end-users	HA3L S7 BC-06-321	IoE S1 BC-03-115A
20:00				
		18:15 Reception City Hall	15:50 17:20	SAI S3 BC-06-321
			19:00 Reception L3 Atrium C	16:50 18:45 Closing L3 Atrium B
			Gala Dinner Dumpling Library Route to the Restaurant	

*Registration is done at L3 Atrium C

*Keynotes will be held at L3 Atrium B

*Coffee and lunch sessions will be held at L3 Atrium C

IMPORTANT

Long papers duration will be 13 min for presentation and 2 min for questions

Short papers duration will be 8 min for presentation a 2 min for questions

HA3L Aml for health & Ambient, Active & Assisted Living

IoE Internet of EveryThing (IoT + People + Processes) and Sensors

DLT Distributed Ledger Technologies applied to Smart Environments

SAI Sustainable Ambient Intelligence

Aml for health & Ambient, Active & Assisted Living (HA3L)

S1

Title	Authors	Type
A preliminary study on Empathy in Conversational Social Agents	Johnson, Esperanza*; Villa, Laura; Carneros-Prado, David; Garcia-Martinez, Beatriz; Mondéjar, Tania; Hervás, Ramón	Long
Co-Creation of Assistive Technology for Enhancing Daily Living in Individuals with Diverse Disabilities	Gervais, Mattys; Bouchard, Bruno; Bouchard, Kévin*; Bouchard, Julie; Dionne, Carole	Long
Deep Learning Techniques for Predicting Hypoglycemic Events in Diabetic Patients (Video)	Pujol Lopez, Francisco A.*; Ramírez-Gordillo, Tamai; Mora, Higinio	Short
Web-based Application to Support Non-Verbal and Limited Communication	Garcia-Constantino, Matias F*; McCloskey, Rosey	Short
Wireless Alert Technology for Elderly Care at Home	Poulin, Sébastien; Obradovic, Natasa; Lacerte, Julie; Provencher, Veronique; Pigot, Hélène HP; Giroux, Sylvain; Kenfack Ngankam, Hubert*	Long
Detecting Stress of Nurses Using Wearable Devices with Data Augmentation by Large Language Models	Miyake, Naoya*; Kaneko, Haru; Ronando, Elsen; Garcia, Christina A; Inoue, Sozo	Long
Integrating Audio-based Interactions and Large Language Models into Ambient Assisted Living Environments	Casino, Fran*; Batista, Edgar; Martínez-Ballesté, Antoni; Solanas, Agusti	Short

S2

Title	Authors	Type
Discovering Social Interactions Between Caregivers and Frail Individuals Using Indoor Localisation	Polo Rodríguez, Aurora*; Anguita Molina, Miguel Angel; Gil, David; Romero Sánchez, José Manuel; Fernández García, Elena; Paloma Castro, Olga; Porcel Gálvez, Ana; Medina Quero, Javier	Long
What is your dependency level? A system to evaluate individual dependency levels depending on the social context and physical activity	Martín-Arenas, Cristobal; Ballesteros, Joaquin*; Cosano, Arturo; Rondon, Luis Miguel	Long
MeciFace: Mechanomyography and Inertial Fusion-based Glasses for Edge Real-Time Recognition of Facial and Eating Activities	Bello, Hymalai*; Suh, Sungho; Zhou, Bo; Lukowicz, Paul	Long
Enhancing Bed Safety: Monitoring Sleeping Positions, Bed-Exits, and Falls Using Grid-EYE Infrared Array Sensors	Comai, Sara; Lambruschi, Matteo; Ravasio, Federica; Masciadri, Andrea; Pomante, Luigi*; Salice, Fabio	Long
MoViAn: Advancing Human Motion Analysis with 3D Visualization and Annotation	Qi, Trudi Di*; Browen, Isaac; Zhang, David; Camarillo-Abad, Hector M. ; Cibrian, Franceli L	Long
Hierarchical Zero-Shot Approach for Human Activity Recognition in Smart Homes	Fritsch, Stefan Gerd*; Cruciani, Federico; Fortes Rey, Vitor; Cleland, Ian; Nugent, Luke; Lukowicz, Paul; Nugent, Chris	Long

S3

Title	Authors	Type
Filtering Data from Motion Sensors with Rich Features for Monitoring Brushing Behaviors	Abudalfa, Shadi Ibrahim; Bouchard, Kévin*	Short
Balancing Real and Synthetic Data for Enhanced Human Activity Recognition: An Empirical Study	Liaquat, Majid*; Nugent, Chris; Cleland, Ian; Khan, Naveed	Long
Integrating Temporal Context into Streaming Data for Human Activity Recognition in Smart Home	Vicini, Marina*; Rudorfer, Martin; Dai, Zhuangzhuang; Manso, Luis J.	Long
Empowering the Disabled: Object Detection and Recognition for Enhanced Autonomy	Lupión Lorente, Marcos*; Sanjuan, Juan F.; Gonzalez-Ruiz, Vicente; Ortigosa, Pilar M.	Long
Hierarchical Temporal Convolution Network: Towards Privacy-Centric Activity Recognition	Zakka, Vincent Gbouna*; Dai, Zhuangzhuang; Manso, Luis J.	Long
Computing Velocity and Force in Strength Exercises Using a Wearable and Sport Performance Monitoring Machine (MYO-QUALITY)	Lopes, Antonio; García, Nuno; Chiroso Ríos, Ignacio Jesús; Medina Quero, Javier; Polo Rodríguez, Aurora*	Short
Evaluation of Human Activity Recognition and Segmentation Based on the DETR Model	Zhu, Tao*; Li, shuangjian; Ban, Lulu	Short

S4

Title	Authors	Type
3D Reconstruction of the human body from partial scans using parametric models	Muelles, Juan; Garcia-Durso, Nahuel E.; Jerez, Mario; Fuster-Guillo, Andres F; Azorin-Lopez, Jorge*	Short
Unlocking the Truth Behind Packaging Claims: An Approach from Consumer Neuroscience	Palakkath, Vishnu Venugopal*; Hussain, Tazar; Tijaro, Jeison	Short
Culinary Captures: A First Step Towards Fine-Grained Cooking Activity Summarization from Video to Guide Clinicians' Intervention Plans	Boutet, Hugo*; Gaboury, Sébastien; Maître, Julien	Long
Calcification Recognition: A Preliminary Result Based on a Computational Conceptual Model	Martínez-Pérez, Francisco E*; Nunez-Varela, Alberto S; Nava-Munoz, Sandra E.; Nunez-Varela, Jose I.; Ramirez-Gamez, Cesar Augusto; Castillo-Barrera, Francisco Edgar	Long
Task-Driven Semantic-Aware Image Compression	Zhou, Junwei*; Xiao, HaoYun; Li, Dexin; Wang, Liangliang; liang, peidong; Zhou, Jian; Yang, Yanchao	Long

S5

Title	Authors	Type
Linking Mental Health Incidents with External Variables: A Machine Learning Study	Rosa Remedios, Carlos C; Gonzalez Quintana, Noemi; Molina-Gil, Jezabel; Caballero-Gil, Pino*	Long
Using semi-Markov models for generating, validating, and analyzing artificial smart home processes	McClellan, Sally*; Wang, Dongwei; Yang, Lingkai; McChesney, Ian; Tariq, Zeeshan; Prasad, Shalini	Long
Complexity and heterogeneity in health databases: An automated method based on nature inspired algorithms to migrate and standardize data	Barragán Carmona, Alfonso*; Fontecha, Jesus; González Díaz, Iván; Cabañero Gómez, Luis	Long
Superiority of Deep Learning in Ambient Intelligence, a Myth or an Ubiquitous Truth?	Styve, Tchamba Kuinze Brondon; Bouchard, Kevin*	Long
Contextual Anomaly Detection in Smart Homes Using Temporal Graph Based Distances	Bodaghi, Amirhosein*; Nugent, Chris	Long
PrimARY: Intelligent system based on Mixed Reality for diagnosis and assistance in primary care (Video)	del Hoyo, Pablo; Schez-Sobrinho, Santiago; García, Francisco M.; Cardoso, Jorge; Albusac, Javier A.; Vallejo, David*	Long

S6

Title	Authors	Type
Enhancing the Biological Passport with Blockchain Technology (Video)	Sirvent Llamas, Alejandro*; Albentosa Mora, José Luis; Mora, Higinio; Redondo García, Zuleika Maria; Ramírez-Gordillo, Tamai	Short
Using Permutation Entropy to Evaluate Spatial Predictability in Urban Crime	Dang, Minling*; Yu, Zhiwen; Chen, Liming; Wang, Zhu; Guo, Bin; Nugent, Chris	Short
Design of Low-cost Sensor-based Solution to Support Thermal Comfort	Zepeda-Gil, Carlos; Garcia-Constantino, Matias F; Konios, Alexandros*	Short
Mindful Mobility: EEG-Based Brain-Computer Interaction for Elevator Control Using Muse Headset	Srivastav, Devansh*; Kaltbach, Thomas; Akhtar Mughal, Ahmer; Giriyan, Nischal; Bin Younus, Moaz; Jungbluth, Tobias Partick; Britz, Jochen; Alexandersson, Jan; Rekrut, Maurice	Long
Integrating Traditional Machine Learning Approaches with Explainable Anomaly Detection for Multimodal Sensor Data	Imad, Muhammad*; Cleland, Ian; Nugent, Chris; McAllister, Patrick	Long
Using Agent-Based Modeling and Simulation for Quality in Use Evaluation of Ambient Assisted Living Applications	Corrêa Angeloni, Maria Paula*; Grislin-Le Strugeon, Emmanuelle; Marçal de Oliveira, Káthia; Tirnauca, Cristina; Duque, Rafael	Long
Detecting Arousal and Valence in Engineering Students' Learning Activities Using Brain-Computer Interfaces (Video)	Aravena, Valentina A*; Baloian, Nelson; Zurita, Gustavo	Long
Semantic Enrichment and Visualisation of HAR Data: Ontology Development from Unstructured Data Sets Metadata	Alam, Gulzar*; McChesney, Ian; Nicholl, Peter; Rafferty, Joseph	Long
AI-Driven Wearables for Driver Health and Safety	Díaz-Santos, Sonia; Caballero-Gil, Pino*; Gil, Cándido Caballero	Short

Title	Authors	Type
Use of Thermal Sensor Data for Personalised Mood Detection in Activities of Daily Living (ADLs)	Konios, Alexandros*; Garcia-Constantino, Matias F; Ekerete, Idongesit F; Mustafa, Mustafa; Lopez-Nava, Irvin Hussein; Altamirano Flores, Yulith V	Long
Enhancing Smart Home Accessibility for the Deaf through Transformer-Based Sign Language Production and Avatars	Lupi3n Lorente, Marcos*; Navarro L3zaro, Javier; Gonzalez-Ruiz, Vicente; Sanjuan, Juan F.; Ortigosa, Pilar M.	Long
Towards a multimodal approach for assessing ADHD hyperactivity behaviors	Cibrian, Franceli L*; Min, Lauren; Arnold, Vitica	Long
Early monitoring tool for IADL independence based on conversational agents	Alejandro P3rez Vereda; Adrian S3nchez-Miguel Ortega; Iv3n Gonz3lez D3az; Jesus Fontecha	Long
SHARA in the Land of Oz: A platform for the rapid development of human-robot-interactions using social robot simulator and Wizard of Oz	Charco, Guillermo Cubero*; Villa, Laura; Favela, Jes3s; Ochoa, Sergio F; Diaz, Celia; Herv3s, Ram3n	Long
Innovating in Nursing Education: A Game Prototype for Bridging the Gap in Family-Centered Care	Jessica Ferreira, Carla Silvia Fernandes, Maria Joana Campos, Teresa Martins, Marta Campos Ferreira	Long

Internet of Everything (IoT + People + Processes) and Sensors (IoE)

S1

Title	Authors	Type
Towards A Trustworthy Federated Learning Framework for Constrained Devices	Ó Fithcheallaigh, Seán*; Cleland, Ian; Nugent, Chris; Liu, Jun	Long
Evaluation of Plantar Pressure Sensors for Classification of Ski Gear using Deep Learning Models	Polo Rodríguez, Aurora; Marcen Cinca, Noel; Martínez Martín, Fernando; Carvajal, Miguel Ángel; Medina Quero, Javier*; Martínez García, Sofía	Long
Optimizing Service Migration and Task Offloading in Osmotic Computing with Deep Q-Networks	Kumar, Rajesh*; Kaur, Akashdeep; Saxena, Sharad	Long
Federated Learning for Enhanced Malware Threat Detection to Secure Smart Power Grids	Shafi, Saira; Tariq, Noshina; Khan, Farrukh A.*; Ali, Aftab	Long
Nowcasting, doping and discriminating energy generation of Photovoltaic Systems using regression models of Adversarial Networks (SAI)	Medina Quero, Javier; Almonacid-Olleros, Guillermo; Rojas, Ignacio; Nugent, Chris; Almonacid, G. P.; Polo Rodríguez, Aurora*	Long
Invisible Presence Control System Through IoT Devices Network	Mora, Higinio*; Ramírez-Gordillo, Tamai; Pujol Lopez, Francisco A.; Sirvent Llamas, Alejandro	Short

S2

Title	Authors	Type
Governing the Evolution of IoT-based Systems	Vera, Tomás; Ochoa, Sergio F*; Santos, Rodrigo M; Perovich, Daniel	Short
PLATERA: A Comprehensive Web-Based System and Sensor Dataset for Activity Recognition in Households Environments	Díaz Jiménez, David*; López Ruiz, José Luis; Gaitán-Guerrero, Juan F; Espinilla, Macarena	Long
A WSN and IoT-based Wire Consumption Monitoring System for Mobile Welding Machines	Mirani, Akseer Ali*; Awasthi, Anshul; Niall O'Mahony, Niall; Walsh, Joseph	Long
IoT-Powered Vital Signs Monitoring System for Optimal Hospital Assistance	Montoya, Carlos; López Ruiz, José Luis; Gaitán-Guerrero, Juan F*; Díaz Jiménez, David; Espinilla, Macarena	Long
e2Drive: Enhancing Urban Mobility and Safety for Physically Disabled Drivers through Smart Sensor System	Bleda, Andres L.*; Leal Contreras, Juan Luis; Beteta, Miguel A; Maestre-Ferriz, Rafael; Abbenante, Sergio E.; Puche-Forte, Jose Francisco	Long

S3

Title	Authors	Type
BLE Wireless Sensor Network for Mobile Coop Monitoring as part of an Ubiquitous Ecosystem	González, Joseph A; Villarreal, Vladimir*; Muñoz, Lilia E; Nielsen, Mel I	Long
Tailoring Digital Middleware for Rural Needs: Insights from User Feedback Analysis	Gómez-Carmona, Oihane*; Buján-Carballal, David; Casado-Mansilla, Diego; López-de-Ipiña, Diego	Long
Analyzing Handwriting Legibility in Children Using Smart vs. Traditional Pen (Video)	Cibrian, Franceli L*; Min, Lauren; Chen, Yingchen 'Yuki'; Anderson, Kayla; Gutierrez, Oscar; Escobedo, Lizbeth	Long
From Theory to Practice: A Hands-On Guide to the Deployment of Smart Classrooms	Batista, Edgar*; Casino, Fran; Falcone, Francisco; Ferre, Maria; Figueroa, Elena; Martínez-Ballesté, Antoni	Short
Towards the Democratization of Citizen Science Campaigns for Air Quality Assessment	López-de-Ipiña, Diego*; Puerta-Beldarrain, Maite; Barco-Martelo, Alex; Casado-Mansilla, Diego; Gómez-Carmona, Oihane; Morresi, Nicole; Kotzagianni, Maria; López-Gomollón, Carlos; Udina, Sergi	Long

Title	Authors	Type
Two-coil Resonant Wireless Power Transfer System for Smart Recycling Containers	Leal Contreras, Juan Luis*; López, Ovidio; Maestre-Ferriz, Rafael; Bleda, Andres L.; Beteta, Miguel A	<u>Long</u>
Use of IoT-based Solution and Audio Data Analysis for Snoring Detection	Murchan, Lawrence M*; Garcia-Constantino, Matias F	<u>Long</u>
Usefulness of power consumption simulated data of inhabited houses for abnormal activity detection	Cabañero Gómez, Luis*; Sánchez-Miguel Ortega, Adrian; Fontecha, Jesus; González Díaz, Iván	<u>Long</u>
Using the metadata-based App-PI ecosystem to assess the privacy impact of Health apps	Martínez-González, M. Mercedes*; Aparicio de la Fuente, Amador Amador; Pérez-Fuente, Alejandro; Criado-Lozano, Pablo A.	<u>Long</u>
Obtaining the Origin-Destination Matrix in Transportation (Video)	Mora, Higinio; Gilart Iglesias, Virgilio; Garcia Barba, Javier; Aragonés Pomares, Luis; Sirvent Llamas, Alejandro*	<u>Short</u>
Towards Privacy-Preserving Voice Control in Smart Home IoT: a Taxonomy	Hewitt, Mary*; Cunningham, Hamish	<u>Short</u>

Distributed Ledger Technologies (DLT) applied to Smart Environments

S1

Title	Authors	Type
On the Problem of Coste Volatility in E-prescriptions Systems	Goli, Gnana Prakash; Migliardi, Mauro*	Short
ASPMi: An Adaptable SPAM Protection Mechanism for IoT scenarios (Video)	Moya Perez, Francisco*; Quesada Real, Francisco J; Martinez, Luis; Estrella, Fco Javier	Long
Combining Distributed Ledger Technologies and Differentially Private Sketching Techniques for Securing Health Monitoring	Ramos Cruz, Bruno*; Quesada Real, Francisco J; Rodriguez-Garcia, Mercedes; Andreu-Perez, Javier; Martinez, Luis	Long
Integrating IoT and DLT to Enhance Patient Wait Time Traceability in Radiotherapy Oncology (Video)	Muñoz Higuera, Cristina*; Serradilla Gil, Ana; Moreno Colmenero, Maria Pilar; Quesada Real, Francisco J	Long
Research on Medical Information Retrieval Mechanism Based on Distributed Storage and Computation	Zhao, Qigang; Qiu, Xiaoping; 李, 鹏飞*; Wu, Yongkang	Long

Sustainable Ambient Intelligence (SAI)

S1

Title	Authors	Type
Addressing Ethics and Sustainability in Ubiquitous Computing and Ambient Intelligence	McCullagh, Paul*; Moore, Samuel J	Short
Semi-Supervised Polyp Segmentation via a Dual-Teacher Student Framework	Lei, Qin; Liu, Xueli; Luo, Weiwei; xu, cunlu*	Short
Pollutant Source Contribution Study Using Chemistry Transport Models	Pujante Pérez, Alejandro*; Martínez-Abarca, Carlos; Illueca Fernández, Eduardo; Cuevas Martínez, Iris; Jara Valera, Antonio Jesús	Long
Optimization of Energy Infrastructure Through High-Resolution Weather Forecasting	Pujante Pérez, Alejandro*; Martínez-Abarca, Carlos; Cabo Valdés, José Antonio; Illueca Fernández, Eduardo; Jara Valera, Antonio Jesús	Short
Quantum Annealing As a Chemical Kinetics Solver For Pollutant Transport Models	Rodríguez, Juan de Dios*; Pujante Pérez, Alejandro; Illueca, Eduardo; Jara, Antonio	Short
Automatic identification of fish species and their farmed or wild origin by computer vision and deep learning	Jerez, Mario*; Garcia-Durso, Nahuel E.; Climent-Perez, Pau; Gimenez Mendez, Aaron Diego; Azorin-Lopez, Jorge; Fuster-Guillo, Andres F; Toledo-Guedes, Kilian	Short
A Dependable Hybrid Deep Learning Model for IoT Trust Management System (<i>IoE</i>)	Aaqib, Muhammad*; Ali, Aftab; Chen, Liming; Nibouche, Omar	Long

S2

Title	Authors	Type
BLE-Based Chair Occupancy Detection: A Low-Energy Approach for Smart Care	Rinaldi, Claudia; Pomante, Luigi*; Maggioni, Elia; Campi, Alessandro	Long
ReLU-KAN: New Kolmogorov-Arnold Networks that Only Need Matrix Addition, Dot Multiplication, and ReLU	Qiu, Qi*; Zhu, Tao; Gong, Helin; Chen, Liming; Ning, Huansheng	Long
A Comparative Evaluation of Machine Learning Architectures for Detecting Attacks on Smart Meter Data	Gallego, Carlos Javier; Bernardos, Ana M.*; Casar, José Ramón	Long
Handheld Spectroscopy for Dairy Quality Control: Towards a Real Time Milk Spoilage Classification Model	Gillespie, James*; Vincent, Jordan; Dib, Omar; Heiden, Matthias; Condell, Joan V	Long
Data Complexity and its effect on EBRB System Accuracy	Xian, Yiqing*; Liu, Jun	Long

S3

Title	Authors	Type
Simplified Extended Belief Rule-Based System for Classification Problems	McHugh, Orla*; Liu, Jun	Short
A Privacy-Preserving Federated Learning Framework for Financial Crime	Haseeb, Abdul*; Ekerete, Idongesit F; Moore, Samuel J	Long
Optimization of Production Scheduling for Prefabricated Buildings Under the Background of Dual Carbon Goals	Xu, Lixian*; Liu, Jun; Zou, Li; Yu, Dehu; Xia, Qishuo	Long
Prediction and interpretability analysis of RC column yield displacement based on Bayesian optimization ensemble learning	Yu, Dehu; Wang, Qihang*	Long
Interpretable Machine Learning Based Prediction of Bearing Capacity of Rectangular RC Columns	Zhang, Shicheng*; Yu, Dehu	Long