

Thursday, September 26

08:30am	Registration	14:30pm	ML & AI in Agriculture (Chair: Matías Miguez) Novel Mask R-CNN Based Mushroom Cluster Tracking in Time-Lapse Images from a Farm Environment <i>Sari Nuwayhid, Christos Charisis, Dimitrios Argyropoulos</i> Multi-Modal Fusion with Machine Learning Integrated Approach for the Investigation of Honey Adulteration <i>Antonios Morellos, Xanthoula Eirini Pantazi, Dafni Dimakopoulou-Papazoglou, Eugenios Katsanidis</i> Deep Transfer Learning for Improved Quality Control in Organic Tomatoes <i>Xanthoula Eirini Pantazi, Christos Tsitsopoulos</i> Preliminary Analysis of Biotic and Abiotic Stress on Tomato Plants Using Impedance Measurements and Time Series Clustering <i>Federico Cum, Luca Alfarano, Massimo Pugliese, Danilo Demarchi, Umberto Garlando</i>
08:45am	Opening Speech		
09:00am	Keynote Speech (Chair: Georgios Sirakoulis) <i>Andreas Andreou, Univecity of Cyprus</i>		
10:00am	Sensors & Systems in Agritech 1 (Chair: Danilo Demarchi) A Holistic Approach to Grapevine Cultivation with Precision Viticulture <i>Athanasios Passias, Georgios Kleitsiotis, Ioannis Tompris, Emmanouil Stavroulakis, Evangelos Tsipas, Karolos-Alexandros Tsakalos, Konstantinos Rallis, Iosif-Angelos Fyrigos, Xanthoula Eirini Pantazi, Georgios Sirakoulis</i> An IoT Based, Low-Cost, Trunk Frequency Measurement System for Plant Health Monitoring <i>Mridul Gupta, Arpit Khandelwal, Danilo Demarchi, Jai Narayan Tripathi</i> A Portable Device for Ca²⁺ and K⁺ Measurements in Grapevine Sap and Berry Juice Based on Flexible and Printed Organic Electrochemical Transistors <i>Edoardo Graiani, Michele Caselli, Giuseppe Ciccone, Antonio Altana, Pietro Ibba, Valentina Bianchi, Ilaria De Munari, Luisa Petti, Andrea Boni</i> Dual-Pin Impedance Probe for Crop Quality Estimation Using the RF Return Loss Method <i>Temitope Odedeyi</i>	15:30pm	Coffee Break
		16:00pm	Energy Management & Computer Vision (Chair: Sahira Vasquez Baez) Lamp Energy Harvesting and Spectrum Analysis to Reduce Power Consumption in Smart Greenhouses <i>Cristian Bua, Davide Adami, Stefano Giordano</i> Greenhouse Energy Retrofit Investment by the Aid of Dynamic Simulations <i>Faidra Kotarela, Nick Papanikolaou</i> Design Considerations of a GaN-Based Power Distribution Unit for Nanosatellites <i>Nick Rigogiannis, Ioannis Kanimas, Ioannis Almpantopoulos, Angelos Fragkos, Rafail Apostolidis, Nick Papanikolaou</i> Augmenting Cattle Tracking Efficiency Through Monocular Depth Estimation <i>Lewis Thomas Dickson, Christopher Davison, Craig Michie, Ewan McRobert, Robert Atkinson, Ivan Andonovic, Holly Ferguson, Richard Dewhurst, Roger Briddock, Mark Brooking, Dejan Pavlovic, Oskar Marko, Vladimir Crnojević, Christos Tachtatzis</i> Precision Identification System for Sowing Germination Trays <i>Ernesto Roque Guzman, Juan Pablo Espejel Flores, Brayan Ortiz Hernandez, Luis Arturo Soriano Avendaño</i> Automatic Identification System of Pinewood Quality Level <i>Luis Herrera, Luis Hernandez, Julio De Meza, Jaime Rios, Luis Arturo Soriano Avendaño</i>
11:00am	Coffee Break		
11:30am	Sensors & Systems in Agritech 1 (Chair: Victor Mathenge) A Modular, Remotely-Controlled, Multi-Parameter Weather Station for Precision Agriculture <i>Stavros Chrysanthou, Kleanthis Erotokritou, Antri Papasava, Andreas Karkotis, Marios Sophocleous, Loizos Christofi</i> A Concentration Separability Indicator (CSI) Feature Selection Method to Enhance Coffee Classification for an Electronic Nose System <i>Jui-Ching Wu, Shih-Wen Chiu, Kea-Tiong Tang</i> Integrated Multifunctional Flexible Sensing System for Soil Nitrate Monitoring <i>Kuan-Yu Chen, Jeneel Kachhadiya, Sharar Muhtasim, Shuohao Cai, Jingyi Huang, Joseph Andrews</i>		
12:15pm	ML & AI in Agriculture (Chair: Xanthoula Eirini Pantazi) Semantic-Search: A Knowledge-Driven Classification Method for Plant Diseases <i>Kiran Kumar Kethineni, Saraju Mohanty, Elias Kougiannos</i> Green Harvesting in Vineyard: A Deep Learning Empowered Methodology Under Low Budget Constraints <i>Claudio Tomazzoli, Antonino Parisi, Simone Scannapieco</i> BioVIEW: Automatic Remote Platform for Biodiversity Evaluation Using Low Cost Electronics <i>Miguel Molina-Rotger, Alejandro Mora, Miguel Angel Miranda, Bartomeu Alorda-Ladaria</i>	20:00pm	Welcoming Reception
13:00pm	Lunch Break		

Friday, September 27

08:30am	Registration	14:30pm	Livestock Management (Chair: Alfredo Arnaud)
09:00am	Keynote Speech (Chair: Marios Sophocleous) <i>Oded Shoseyov, Hebrew University of Jerusalem</i>		An ISO 11784/5 Compliant Analysis for a Mixed-Signal ASIC, for Animal RFID Readers' Frontends <i>Lucio Barbieri, Matias Miguez, Joel Gak, Santiago Pinheiro, Alfredo Arnaud</i>
10:00am	Irrigation Techniques (Chair: Umberto Garlando)		An AIoT-Based System for Livestock Management to Improve Their Productivity and Well-Being <i>Victor Mathenge, Mercy Otuka, Collins Bett, Mercy Runo</i>
	Performance Evaluation of Federated Learning Techniques for Predicting Irrigation Water Requirements of Farms <i>Dalhata Muhammed, Ehsan Ahvar, Parsa Rajabzadeh, Shohreh Ahvar, Maria Trocan</i>		Multiphysics Finite Element Investigation of Galvanic Transmission for Dynamic Livestock-Based Communication <i>Aaron Roopnarine, Sean Rocke, Megan Mahadeo, Jeevan Persad</i>
	Long-Range Bluetooth Low Energy Devices for Smart Greenhouse Irrigation Automation <i>Fabio Scatozza, Juan Camilo Mora Zoppi, Giovanni Paolo Colucci, Antonio Elia, Daniele Trincherio</i>		An Automated Approach for Lameness Detection in Cattle Using Machine Learning and IMU Sensors <i>Georgios Tziotziotis, Konstantinos Dolapts, Antonios Morellos, Dimitrios Kateris, Dionysis Bochtis</i>
	The Challenges of Using Remote Sensing Based Irrigation Recommendation Technology on Smallholder Farms in India <i>Michale Goldberger, Yosi Shacham-Diamand, Sunderrajan Krishnan, Suneetha Sapur, Meru Dodiya, Pradeep Bhadaliya, Ram Fishman</i>	15:30am	Sensors & Systems in Agritech 2 (Chair: Victor Mathenge)
	Recurrent Neural Networks for Soil Moisture Prediction Leveraging Soil Matric Potential Data <i>Nicola Dilillo, Antonio Marceddu, Mattia Barezzi, Umberto Garlando, Renato Ferrero</i>		Distinction Between Hydration and Fertigation Events in Plant Tetrapolar Bioimpedance Measurements <i>Enayetur Rahman, Bojan Nikolic, Michael Powner, Panos Ioakim, Iasonas Triantis</i>
11:00am	Coffee Break		Sustainable Paper-Based NFC Tag for On-Field Humidity Sensing <i>Pietro Ibba, Sonia Gomez-Gijon, Yann Houeix, Sahira Vasquez, Francisco J. Romero, Paolo Lugli, Luisa Petti, and Almudena Rivadeneira Torres</i>
11:30am	Irrigation Techniques (Chair: Matías Miguez)		A Wireless Piezoresistive and Maintenance-Free Smart Bolt for Structural Monitoring in Agriculture <i>Antonino Pagano, Mario Costanza, Samuel Margueron, Michael Fontaine, Abdo-Rahmane Anas Laaraibi, Florence Razan, Gurvan Jodin, Damien Hoareau, Ilenia Tinnirello, Roberto La Rosa</i>
	Power Management for a Wireless Solenoid Irrigation Valve <i>Alfredo Arnaud, Augusto Sbarbaro, Nicolas Calarco, Joel Gak, Hever Gudiño, Andy Tepezila, Luis Arturo Soriano Avendaño, Matías Miguez</i>		Autonomous and Low-Cost Data Acquisition System for Impedimetric Sensors in Precision Horticulture <i>Sahira Vasquez, Antonio Altana, Ciro Allará, Michele Gullino, Elias Holzknacht, Walter Guerra, Paolo Lugli, Pietro Ibba, Luisa Petti</i>
	Enabling Variable-Rate Irrigation at District Scale for Open Field Crops <i>Stefano Caselli, Michele Amoretti, Gabriele Penzotti, Francesco Sacconi</i>		
12:00am	Sensors & Systems in Agritech 2 (Chair: Danilo Demarchi)	16:30pm	Coffee Break
	A Comprehensive Strategy for Tomato Cultivation Utilizing Precision Agriculture Techniques <i>Karolos-Alexandros Tsakalos, Georgios Kleitsiotis, Ioannis Tompris, Athanasios Passias, Emmanouil Stavroulakis, Evangelos Tspis, Konstantinos Rallis, Iosif-Angelos Fyrgos, Xanthoula Eirini Pantazi, Georgios Sirakoulis</i>	17:00pm	Drones in Agriculture (Chair: Paddy French)
	LP-WAN Nodes with Integrated Leaf Wetness Sensors <i>Elena Filipescu, Giovanni Paolo Colucci, Juan Camilo Mora Zoppi, Daniele Trincherio</i>		ArgHRI: Mediating Human-Robot Teaming with Automated Argumentation in Agriculture <i>Ionut Moraru, Andreas Xydias, Zhuoling Huang, Elizabeth Sklar</i>
12:30pm	Livestock Management (Chair: Paddy French)		Cartesian Robot Design for Automated Spinach Seedling in Crop Beds <i>Aarón Jiménez Galicia, Josué Salvador Domingo, Luis Arturo Soriano Avendaño</i>
	Multimodal Neural Network for Detecting and Classifying Deviations in Poultry Behavior <i>Garik Markarian, Georgi Kolev, Denis Kolev, Natalia Polushkina</i>		Integration and Simulation of Precision Weed Spraying System on Unmanned Ground Vehicle <i>Goran Kitić, Csaba Petes, Vladan Filipović, Mina Mirović, Slobodan Birgermajer</i>
	A Hybrid BLE-LF Tag for Extended-Range Cattle RFID <i>Juan Sapriza, Natalia Martínez, Matías Miguez, Alfredo Arnaud</i>		Utilisation of Mesh-in-the-Sky and Advanced IoT Sensors in Agriculture <i>Garik Markarian, Georgi Kolev, Marios Sophocleous, Stavros Chrysanthou, Temitope Odedeyi, Izzat Darwazeh, Andreas Karkotis, Georgia Pantelide, Loizos Christofi</i>
13:00pm	Lunch Break		Automated System for Orchard Layout Planning <i>Gabriela Asiminari, Vasileios Moysiadis, Ioannis Menexes, Dimitrios Kateris, Dionysis Bochtis</i>
			Optimized Path Planning for UGV Based on Sampling Maps <i>Gabriela Asiminari, Panagiotis Papazisis, Dimitrios Katikaridis, Dimitrios Kateris, Dionysis Bochtis</i>
		20:00pm	CAFE 2024 Banquet

Saturday, September 28

08:30am	Registration	16:00am	TerraTeQ
09:00am	Keynote Speech (Chair: Marios Sophocleous) <i>Roberto LA'ROSA, STMicroelectronics</i>	16:30am	Coffee Break
10:00am	EU Projects Presentations Part 1 (Chair: Georgios Sirakoulis)	17:00am	IBO
11:00am	Coffee Break	17:15am	DigiAgriFood EDIH
11:30am	EU Projects Presentations Part 2 (Chair: Georgios Sirakoulis)	17:30am	Lioncode
13:00pm	Lunch Break	17:45am	1Anaptixiaki
	IAFE Presentations Part 1 (Chair: Marios Sophocleous)	18:00am	Keynote Speech (Chair: Georgios Ch. Sirakoulis) Engineering a Better World with IEEE Humanitarian Technologies <i>Theodoros Panagiotis Chatzinikolaou, Democritus University of Thrace</i>
14:30am	Synopsis	19:00am	CAFE Award & Closing Ceremony (Chairs: Georgios Ch. Sirakoulis & Marios Sophocleous)
15:00am	STMicroelectronics		
15:30am	RiniCOM		