

FRUTIC Science Symposium

Venue: „Farming Forward“ Stage

06.02.2026

10:00 – 14:00

In English

Organized in Cooperation by FRUIT LOGISTICA and Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB)

Presentations

Session 1 - Alliance for Fruit Growing, Viticulture and Vegetable Cultivation

Moderation by Manuela Zude-Sasse

10:00 – 10:15 Sensor-based detection of flower bud development and drought-stress tolerance in fruit trees

Henryk Flachowsky
Julius Kühn-Institut (JKI),
Germany

10:15 – 10:30 The project "Alpruning" – Tree pruning with the aid of Artificial Intelligence

Frederik Kurz
Research Center Laimburg, Italy

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| 10:30 – 10:45 | Optimizing Postharvest Quality Through Dynamic Controlled Atmosphere Storage | Angelo Zanella Research Center Laimburg, Italy |
| 10:45 – 11:00 | Effect of preharvest temperature on shelf life in tomato | Nico Tapia Zapata Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), -Germany |

Session 2 - Hyperspectral Tools and Fruit Quality Prediction

Moderation by Reza Ehsani

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| 11:00 – 11:15 | The application of agrivoltaics and netting on yield efficiency, qualitative attributes and secondary metabolism of raspberry | George Manganaris Cyprus University of Technology, Cyprus |
| 11:15 – 11:30 | Multispectral and Image Measurement for Monitoring Citrus Growth | Atsushi Hashimoto Mie University, Japan |
| 11:30 – 11:45 | Early Detection of Mango Anthracnose Using Hyperspectral Imaging Integrated with Machine Learning Algorithms | Norhashila Hashim Universiti Putra Malaysia, Malaysia |
| 11:45 – 12:00 | Integrating Hyperspectral Imaging and Regression Models to Predict Loquat Quality at Harvest | Jose Blasco Instituto Valenciano de Investigaciones Agrarias (IVIA), spain |

Section 3 - FruitCREWS

Moderation by Brunella Morandi

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| 12:00 – 12:15 | Physiological variables and sensing technology to detect tree water status and its functionality: the synergistic experience of FruitCREWS COST Action | Pasquale Losciale University of Bari "Aldo Moro", Italy |
| 12:15 – 12:30 | Aspects influencing the irrigation scheduling in fruit crops | Martin Mészáros Research and Breeding Institute of Fruit Growing Holovousy Ltd, Czech Republique |
| 12:30 – 12:45 | Interpreting sensor data with plant models to guide irrigation scheduling in fruit trees | Kathy Steppe Ghent University, Belgium |

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| 12:45 – 13:00 | Decision-support tools for irrigation of fruit tree crops | Alon Ben-Gal Agricultural Research Organization - Volcani Institute, Isreal |
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Section 4- Postharvest Technologies and Quality Optimization

Moderation by Helene Fotouo Makouate

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| 13:00 – 13:15 | Autonomous Robotic Platform for Leaf-Level Sensing in Orchard Environments | Ehsani Reza University of California, Merced, United state |
| 13:15 – 13:30 | Three ways to utilize ethanol to extend the storage life of fruits | Amnon Licher Volcani Institute, Isreal |
| 13:30 – 13:45 | Non-Destructive Classification of Peach Maturity Using NIR Spectroscopy and its Relationship to Chilling Injury Development During Cold Storage | Angelos Deltsidis University of Georgia, United State |
| 10:00 – 10:15 | SensorTwin: A multi-parameter sensor node for apple cold storage optimization | Tuany Hoffmann Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), - Germany |

Posters

Digital Quality Tracking of Fruits and Vegetables During Dynamic Drying Process Using 3D Point Cloud Imaging

Muhammad Tayyab (Leibniz Institute for Agricultural Engineering and Bioeconomy (ATB), Potsdam, Germany)

Automation of a Drip Irrigation System Using Analog Capacitive Soil Moisture Sensor

Curay Ma. Grace (Universiti Putra Malaysia)

Development of a Testing Rig for Ram Pump

Ma. Grace Curay (Universiti Putra Malaysia)

Thermal Performance and Drying Behavior of a Polycarbonate Solar Dryer Integrated with Turbo Stove Heating

Ma. Grace Curay (Universiti Putra Malaysia)

FRUIT-GUARD®: Long-Term Chlorophyll Fluorescence Monitoring in Apples under DCA

Schlie Tim-Pasca (Fruit Advisory Service of the Altes Land, Germany)

Dynamic Characterization of the Turbulent Pattern Generated by a Quadcopter Drone for Active Agricultural Applications

Salcedo Cidoncha Ramon (Polytechnic University of Catalonia, Spain)

Design and Experimental Validation of a Stereo Vision-Based Variable-Rate Spraying System for Plant Protection Robots

Zhihong Zhang (Shanghai Institute of Technology, China)