14th International Conference & Exhibition on Green Flexible Printed Electronics Industry (ICEFPE24) and AGRIVOLTAICS 2024
4 - 6 November 2024, Crowne Plaza Hotel, Athens, Greece

PROGRAM

Monday 4 November

08:00-	**Registration & Networking**
09:00–10:00	**Official Opening Ceremony ICEFPE24**
09:00–09:15	**Welcome by the Chairman** **S. Logothetidis**, *Chairman ICEFPE24*
09:15–10:00	**Official Openings and Government Policies** · **Prof. N. Papaioannou**, *Representative of the Presidency of the Greek Government* *Secretary General for Higher Education, Ministry of Education, Religious Affairs and Sports, Greece* · **Dr. V. Marinakis,** *Representative of Mayor of Athens, President of DAEM SA of the Municipality of Athens, Greece*
10:00-11:30 **Session 1**	**Session 1: Building the FPEs Green Industry & Green Energy for a Climate - Neutral Economy** Chair: A. Laskarakis
10:00-10:30 **Keynote**	**Building a Sustainable and Green Manufacturing Industry of Flexible Printed Organic Electronics** **S. Logothetidis**, *Nanotechnology Lab LTFN & HOPE-A, Greece*
10:30-11:00 **Keynote**	**Organic photovoltaics with efficiencies exceeding 20%** **T. Anthopoulos**, *University of Manchester, UK*
11:00-11:30 **Invited**	**Advancing OPVs towards certified IPV products for a Greener Future** **I. Gkaragkos,** *Organic Electronic Technologies (OET), Greece*
11:30-12:00	**Coffee, Networking, Posters, Exhibitors**
12:00-13:25 **Session 2**	**Digital and Intelligent Manufacturing of FPEs for Energy** Chair: E. Mekeridis
12:00-12:30 **Keynote**	**Digitalization of every step in the production value chain - How to get from digital twins to Coating as a service** **Th. Kolbusch,** *Coatema Coating Machinery GmbH, Germany*
12:30-12:50 **Invited**	**Enhancing Quality Control with Inline Processes for Flexible Printed Electronics** **G. Bandli,** *Semilab Semiconductor Physics Laboratory Co. Ltd., France*
12:50-13:10 **Invited**	**Achieving high precision processes and interoperability in R2R Manufacturing of FPEs** **D. Gklavakis,** *Depia Automations, Greece*
13:10-13:25	**OPV Solutions in Buildings, Infrastructures and Maritime** **S. Fachouri,** *Organic Electronic Technologies (OET), Greece*
13:25-15:00	**Lunch, Networking, Posters, Exhibitors**
15:00-16:45 **Session 3**	**Session 2: OPV Manufacturing, Processes and Integration** Chair: S. Kassavetis
15:00-15:30 **Invited**	**Towards mass production of Integrated Organic Photovoltaics (IPVs)** **E. Mekeridis,** *OE-Technologies P.C., Greece*
15:30-16:00 **Invited**	**Advancements in fs Laser Scribing for P1, P2 and P3 Patterns Using a System Prototype Built for Thin-Film Photovoltaics** **V. Sabonis,** *Workshop of Photonics, Lithuania*
16:00-16:15	**R2R Laser Patterning Enabling High-Performance Semi-Transparent OPVs** **C. Kapnopoulos,** *Nanotechnology Lab LTFN, Greece*
16:15-16:30	**Spray Coated Transition Metal Dichalcogenides as Hole Transport Layers in inverted NFA-based OPVs with enhanced stability under solar and artificial light** **M. Tountas,** *Hellenic Mediterranean University (HMU), Greece*
16:30-16:45	**Reduction of carbon footprint in OPV via green biosolvent selection** **D. Corzo,** *Silicon Austria Labs GmbH, Austria*
16:45-18:00 **Session 4**	**Materials, Testing & Multiscale Modelling for FPEs Manufacturing** Chair: A. Laskarakis
16:45-17:15 **Keynote**	**Open innovation platform for modelling organic electronic material properties, process, and devices** **E. Lidorikis,** University of Ioannina, Greece
17:15-17:45 **Invited**	**Non-destructive Characterization of coatings in the nm-μm-mm scales by White Light Reflectance Spectroscopy (WLRS)** **I. Raptis,** ThetaMetrisis S.A., Greece
17:45-18:00 **Invited**	**Holistic Integrated Services for Printed Electronics SMEs** **S. Kassavetis**, LTFN/COPE-Nano, Department of Physics, Aristotle University of Thessaloniki, Greece
18:00-20:00 **Posters**	**ICEFPE24 & AGRIVOLTAICS 2024 Posters, Coffee, Networking (Room Socrates B & C)**
18:00-20:00 **INTERNAL**	**HORIZON EUROPE Project Meetings (Room Hippocrates)**
21:00	**Dinner for Invited Speakers**

Organized by
Gold Sponsor
Silver Sponsor
Bronze Sponsors
Supported by
Under the Auspices

Tuesday 5 November

08:00-	**Registration & Networking**
09:00-11:30	**Session 3: Green Energy and Lighting**
Session 5	Chairs: G. Malliaras, Ch. Gravalidis
09:00-09:30	**High performance optoelectronic devices, based on Polyvinylidene Fluoride based copolymers, through ink formulation and printing process optimization**
Keynote	**G. Hadziioannou**, *University of Bordeaux, France*
09:30-10:00	**Sustainable Printable Memristive Solar Cells for Self-Powered IoT Edge Computing Enabled by Halide Perovskites**
Invited	**E. Kymakis**, *Hellenic Mediterranean University Research Center, Greece*
10:00-10:30	**Polymeric and Hybrid Materials for Organic Electronics**
Invited	**K. Andreopoulou,** *Dept. Chemistry, University of Patras, Greece*
10:30-11:00	**The ELORPrintTec Inn. Center for Flexible Printed Organic Electronics: From fundamental science to industrial prototypes**
Invited	**S. Khiev**, *ELORPrintTec, University of Bordeaux, France*
11:00-11:30	**COPE-Nano Center of Excellence for Innovation and Sustainability in FPEs and Bioelectronics**
Invited	**A. Laskarakis**, *LTFN/COPE-Nano, Department of Physics, Aristotle University of Thessaloniki, Greece*
11:30– 12:00	**Coffee, Networking Break, Posters, Exhibitors**
12:00-13:45	**Session 4: Sensors and Biosensors from Healthcare to Agrifood and Environment**
Session 6	Chairs: A. Laskarakis, K. Andreopoulou
12:00-12:30	**Novel materials and device architectures for wearables**
Keynote	**G. Malliaras**, *University of Cambridge, UK*
12:30-13:00	**Sensing Technologies in Agri-food Sector & Environmental monitoring: from Materials to Sensors, from Ideas to Information**
Invited	**G. Kitic,** *University of Novi Sad, Serbia*
13:00-13:15	**From Production to Early Diagnosis: The Role of Printed Biosensors in Diseases Monitoring**
Invited	**K. Tsimenidis**, *BL Nanobiomed, Greece*
13:15-13:30	**KERMIT: Printed Lab-on-a-chip skin patch for detecting kidney disease from sweat**
	D. Corzo, *Silicon Austria Labs GmbH, Villach, Austria*
13:30-13:45	**Bacterial cellulose as a substrate for sustainable inkjet-printed electronic devices**
	F. Pescosolido, *CNR-Institute for Microelectronics and Microsystems (IMM) 00133 Rome, Italy*
13:45-15:00	**Lunch, Networking, Posters, Exhibitors**
15:00-16:45	**Session 5: Energy Efficient Buildings, Smart Cities and Maritime**
Session 7	Chairs: S. Kassavetis, A. Chatziparadeisis
15:00-15:20	**Mission: Climate-Neutral and Smart Cities**
Invited	**N. Chrysogelos,** *Athens Deputy Mayor of Climate Governance and Social Economy*
15:20-15:40	**EU-Mission Project "Creating NEBourhoods together" & upcoming Horizon Europe EU-calls 2025 on Building**
Invited	**P. Panagiotou,** *Bavarian Research Alliance, Germany*
15:40-16:00	**Photovoltaics for Solar Electric Energy Operation in Boats**
Invited	**L. Gourtsoyannis,** *President, Istia Aigaiou, Greece*
16:00-16:15	**Integration of Flexible Organic PVs in Maritime Vessels**
	V. Giannoglou, *Organic Electronic Technologies (OET), Greece*
16:15-16:30	**Innovative Glass for BIPV Applications**
Invited	**N. Stergiou,** *Kiriakidis Glass, Greece*
16:30-16:45	**Expanding Horizons: OPV Integration Across Buildings, Agriculture, Vehicles and Beyond**
	S. Zygridou *Organic Electronic Technologies (OET), Greece*
16:45-18:15	**Session 6: Green Energy Autonomous Islands and Sustainability**
Session 8	Chairs: S. Logothetidis, E. Mekeridis
16:45-17:05	**Greek Islands as Beacons of Sustainability: Pioneering the Green Future**
Invited	**D. Kollias,** *Advisor, Hellenic Ministry of Environment and Energy, Greece*
17:05-17:25	**The Clean energy for EU islands initiative**
Invited	**K. Komninos**, *DAFNI Network, Greece*
17:25-17:45	**Project NHSOS**
Invited	**E. Bekiaris**, *Hellenic Institute for Transport, Greece*
17:45-18:00	**Transition to Net Zero in Greek Shipping**
	C. Yannouli, *OCEANKING, Greece*
18:00-18:15	**Developing global OPV business, through a holistic application development and application platform**
	E. Margaritis, *OE-Technologies (OET), Greece*
18:15-19:30	**ICEFPE24 & AGRIVOLTAICS 2024 Posters, Coffee, Networking (Room Hippocrates)**
Posters	
18:15-19:30	**HORIZON EUROPE Project Meetings (Room Thales)**
INTERNAL	
19:30-21:30	**NANOFUTURE EVENT (Room Socrates B & C)**
21:00	**Cocktail & Drinks**

Wednesday 6 November

08:00-	**Registration & Networking**
09:00–10:00	**Official Opening Ceremony AGRIVOLTAICS 2024**
09:00–09:15	**Welcome by the Chairman** **S. Logothetidis**, *Chairman AGRIVOLTAICS 2024*
09:15–10:00	**Official Openings and Government Policies** · **Dr. K. Tsiaras**, *Minister of Rural Development and Food, Greece* · **Dr. M. Panayiotou**, *Minister of Agriculture, Rural Development and Environment, Cyprus represented by Mr. A. Gregoriou, Permanent Secretary of the Ministry of Agriculture, Rural Development & Environment* · **Mr. D. Stamenitis,** *Deputy Minister at The Ministry of Rural Development and Food, Greece* · **Mr. D. Papagiannidis**, *Secretary General for EU Funds and Infrastructures, Ministry of Rural Development & Food, Greece*
10:00-11:30 **Session 1**	**Global Synergy for Agrivoltaics Collaborative Technologies and Ventures** Chair: C. Gravalidis
10:00-10:30 **Keynote**	**A GAME CHANGER IN AGRICULTURE: Semi-Transparent Flexible PVs for Triple Land Use in GHs & Open Field Cultivations** **S. Logothetidis**, *HOPE-A & Nanotechnology Lab LTFN, AUTh, Greece*
10:30-10:45	**Catalyzing the Transition: Research to Commercial Deployment Agrivoltaics Industry Insights** **H. Hamburger**, *SolarGik, Israel*
10:45-11:00	**Implementation of Ecological Measures in Single-Axis Tracked Interspace Systems within the Framework of the National Agri-PV Tender in Luxembourg: A Report on Challenges and Successes** **I. Khalil**, *GPSS S.A., Luxembourg*
11:00-11:30 **Invited**	**Sustainable Energy Solutions for Greenhouses: The Role of Semi-Transparent Photovoltaics** **A. Kavga,** *University of Patras, Greece*
11:30-12:00	**Coffee, Networking, Posters, Exhibitors**
12:00-13:30 **Session 2**	**Advancements in Crop Harvesting by Integrated OPV and OLED in Greenhouses** Chairs: S. Kassavetis, E. Athanasiadou
12:00-12:30 **Invited**	**Agrivoltaics Revolution for Sustainable Agriculture and Energy Generation: Boosting Greenhouse Crop Yield and Germination with 3rd Gen Semi-Transparent OPVs** **E. Athanasiadou**, *Organic Electronic Technologies (OET) P.C. Greece*
12:30-13:00 **Invited**	**Effect of Agrivoltaics on microclimate and agricultural parameters** **M. Szabo,** *Hungarian University of Agriculture and Life Sciences, Hungary*
13:00-13:15	**The impact of OPVs and OLEDs on a molecular and a macroscopic level of fruit quality** **S. Michailidou**, Organic Electronic Technologies P.C. Greece
13:15-13:30	**Synergistic architectures for next generation Agrivoltaics incorporating flexible, transparent organic solar modules** **K. Nikolaidou,** *EURECAT, Spain*
13:30-15:00	**Lunch, Networking, Posters, Exhibitors**
15:00-18:30 **Session 3**	**Maximizing Agricultural efficiency: Agrivoltaic Optimization Strategies** Chairs: A. Laskarakis, A. Chatziparadeisis
15:00-15:30 **Invited**	**Precision Hydroponics: A solution to Greenhouse Industry. The combination with Agrivoltaics empowers Sustainability** **E. Drimtzias,** *IQ CROPS Ltd, Greece*
15:30-16:00 **Invited**	**Water-based inks for sustainable and efficient organic photovoltaics for Agrivoltaics** **C. Lartigau-Dagron,** *Assistant Professor, University of Pau, France*
16:00-16:15	**Optimizing Waste Water Treatment: A Numerical and Experimental Case Study on Innovative Bioreactor Design with integrated Knitted Fabrics** **A. Kneer,** *TinniT Technologies GmbH, Germany*
16:15-16:30	**LED and OLED Technology to enhance plant growth in next-generation Greenhouses** **D. Tselekidou,** *LTFN/COPE-Nano, Department of Physics, Aristotle University of Thessaloniki, Greece*
16:30-16:45	**Continuous monitoring of an Agri-PV-covered pear orchard with autonomous UGVs** **N. Congouleris,** *iBO – CERTH, Greece*
16:45-17:00	**LSC-filtered illumination for enhancing basil seedling growth** **G. Mangherini,** *University of Ferrara, Italy*
17:00-18:00 **Panel**	**Introduction: European and Greek Policies for Organic Printed Electronics and the perspectives of the Greek Ecosystem** **A. Chatziparadeisis,** *HOPE-A, Greece*
	Panel Discussion with Stakeholders (S. Logothetidis, E. Drimtzias, E. Margaritis, A. Chatziparadeisis) Topics include Policies & Regulations, ESG Goals
18:00-18:30	**ICEFPE24 & AGRIVOLTAICS 2024 Closing Remarks**
21:00	**Dinner for Invited Speakers**

POSTERS	
P01	**Fully Printed Sweat Sensor Patch for Early Diagnosis of Kidney Diseases** **T. Beduk**[1], E. Gregorio[2,3], D. A. Corzo Diaz[1], S. Lengger[1], P. Salvo[2,3], J. Kosel[1] [1]Silicon Austria Labs GmbH: Sensor Systems, Austria [2]Institute of Clinical Physiology, National Research Council, Italy [3]Department of Chemistry and Industrial Chemistry – University of Pisa, Pisa, Italy
P02	**Study on applicability of phytochemicals to organic electronics** **K. Akaike[1]**, T. Hosokai[2], Y. Ono[1,3], R. Tsuruta[3], Y. Yamada[3] [1]National Institute of Advanced Industrial Science and Technology, Nanomaterials Research Institute, Japan [2]National Institute of Advanced Industrial Science and Technology, National Metrology Institute of Japan, Japan [3]University of Tsukuba, Faculty of Pure and Applied Sciences, Japan
P03	**Anisotropic conductive adhesives based on bio-based resins and Copper conductive fillers: Towards more sustainable hybrid electronic devices** **I. Petsagkourakis**, M. Sandberg, O.J. Hagel and V. Beni. RISE Research Institutes of Sweden, Digital Systems, Smart Hardware, Printed, Bio- and Organic Electronics, Sweden
P04	**Transformable and overprintable electrolytes based on betaamino esters (BÁKÉ-lytes). The PIONeering future of sustainable and fully printed electrochemical devices.** **I. Petsagkourakis** and Mats Sandberg RISE Research Institutes of Sweden, Unit of Bio-and-Organic Electronics, Sweden
P05	**Innovative Egot-Based Time Temperature Integrator for Food Cold-Chain Monitoring** **M. Bosi[1]**, M. Sensi[2], F. Biscarini[3] [1,2,3] Life Science Department, University of Modena and Reggio Emilia [1,3] Physics, Informatics and Mathematics Department, University of Modena and Reggio Emilia, Italy
P06	**Surface-science studies of plant-derived molecules** **Y. Yamada[1]**, T. Hosokai[2], Y. Ono[1,3], R. Tsuruta[3], K. Akaike[3] [1] University of Tsukuba, Faculty of Pure and Applied Sciences, Japan [2]National Institute of Advanced Industrial Science and Technology, National Metrology Institute of Japan, Japan [3] National Institute of Advanced Industrial Science and Technology, Nanomaterials Research Institute, Japan
P07	**Investigation of green light emitting polymers for PLED based lighting and optical sensing** **K. Papadopoulos[1]**, D. Tselekidou[1], A. Zachariadis[1], S. Kassavetis[1], A. Laskarakis[1], S. Logothetidis[1,2], M. Gioti[1] [1] Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece [2] Organic Electronic Technologies P.C. (OET), Thermi, Greece
P08	**Investigating the Stability of Fully Printed MAPbI3 Perovskite Solar Cells through ISOS Protocols** **C. Stavraki[1]**, S. Kassavetis[1], A. Zachariadis[1], C. Kapnopoulos[1], E. Paraschoudi[1], C. Gravalidis[1], A. Paliagkas[1], E. Mekeridis[2], S. Logothetidis[1,2], A. Laskarakis[1] [1] Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece, [2] Organic Electronic Technologies P.C. (OET), Thermi, Greece
P09	**A comprehensive study on the impact of molecular doping in enhancing the optoelectronic properties and efficiency of fully printed flexible organic photovoltaics** **A. Paliagkas[1]**, C. Stavraki[1], C. Kapnopoulos[1], A. Zachariadis[1], V. Heben[1], E. Rabota[1], E. Paraschoudi[1], S. Logothetidis[1,2], A. Laskarakis[1] [1] Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece [2] Organic Electronic Technologies P.C. (OET), Thermi, Greece
P10	**Fully printed single carrier devices based on Y5-12 material: Fabrication and Analysis** **E. Doudis[1]**, C. Kapnopoulos[1], C. Stavraki[1], V. Heben[1], A. Paliagkas[1], A. Zachariadis[1], E. Rampota[1], S. Kassavetis[1], A. Laskarakis[1], S. Logothetidis[1,2] [1] Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece [2] Organic Electronic Technologies P.C. (OET), Thermi, Greece
P11	**Exploring Mechanical Robustness of Organic Photovoltaics in Cyclic Bending Conditions** E. Doudis[1], **Th. Kalampaliki[1]**, S. Kassavetis[1], Ch. Kapnopoulos[1], E. Mekeridis[2], A. Laskarakis[1], S. Logothetidis[1,2] [1] Nanotechnology Lab LTFN, Aristotle University of Thessaloniki, Greece [2] Organic Electronic Technologies P.C. (OET), Thermi, Greece

AGRIVOLTAICS 2024

POSTERS	
P01	**Energy Autonomy in Decentralised Urban Greywater Circularity Using Green Roofs** **D. Papadimitriou**, I. Louloudakis, D. Harkoutsis, I.N. Daliakopoulos, P.A. Nektarios, T. Manios Department of Agriculture, Hellenic Mediterranean University, Greece
P02	**Theoretical study of ADA-type dicationic pyridinium molecules as potential organic semiconductor materials in agrivoltaics** **A. Aracena**, I. Chandía Facultad de Medicina Veterinaria y Agronomía, Universidad de las Américas, Manuel Montt 948, Santiago, Chile
P03	**Computational study of ADA-type Benzotrithiophene molecules as potential organic acceptor materials in agrivoltaics** **I. Chandía**, A. Aracena Facultad de Medicina Veterinaria y Agronomía, Universidad de las Américas, Manuel Montt 948, Santiago, Chile
P04	**Photovoltaics for smart machines and robotics** **I. Louloudakis[1]**, D. Papadimitriou[1], D. Papageorgiou[2], I.N. Daliakopoulos[1], T. Manios[1] [1] Department of Agriculture, Hellenic Mediterranean University, Crete [2] Department of Electrical & Computer Engineering, Hellenic Mediterranean University, Greece
P05	**Integrating Agrivoltaics and Advanced Monitoring Systems: A Synergistic Approach to Sustainable Agriculture and Energy** G. Di Domenico[1,2], **A. Colantoni[1]***, P. Pesarini[2], M. Papitto[2], V. Stefano[1,2], S. Bartolucci[1,3] [1] University of Tuscia, Department of Agricultural and Forestry Science, Viterbo, Italy [2] Council for Agricultural Research and Economics, Research Centre for Forestry and Wood, Roma, Italy [3] Gruppo Maurizi S.r.l., Via Pellaro 22 – 00178 Roma
P06	**Agrivoltaic Power Production and RO Desalination with Battery Storage Systems** **N. Ait Said Ouhammou[1]**, M. Akhsassi [1,2], A. Elkissani[1], A. Outzourhit[1] [1] LaMEE, Department of Physic, Faculty of Sciences Semlalia Cadi Ayyad University, Morocco. [2] LGEMS, National School of Applied Sciences, Ait Melloul, Ibn Zohr University, Morocco.