Conference Program

LOPEC 2022

The meeting point for the printed electronics industry

DAY 3
March 24, 2022

Overview

Conference Program – Day 3

09:00 | PLENARY SESSION | Room 14b

09:00 | Eco-designed flexible and printed electronics gain support in Horizon Europe
09:25 | Accelerating innovation for smart medical devices
09:50 | Future directions in flexible electronics – Fraunhofer FEP
10:15 | 3D IML touch panels manufactured with Functional Foil Bonding (FFB)
10:40 | Student Poster Award

COFFEE BREAK

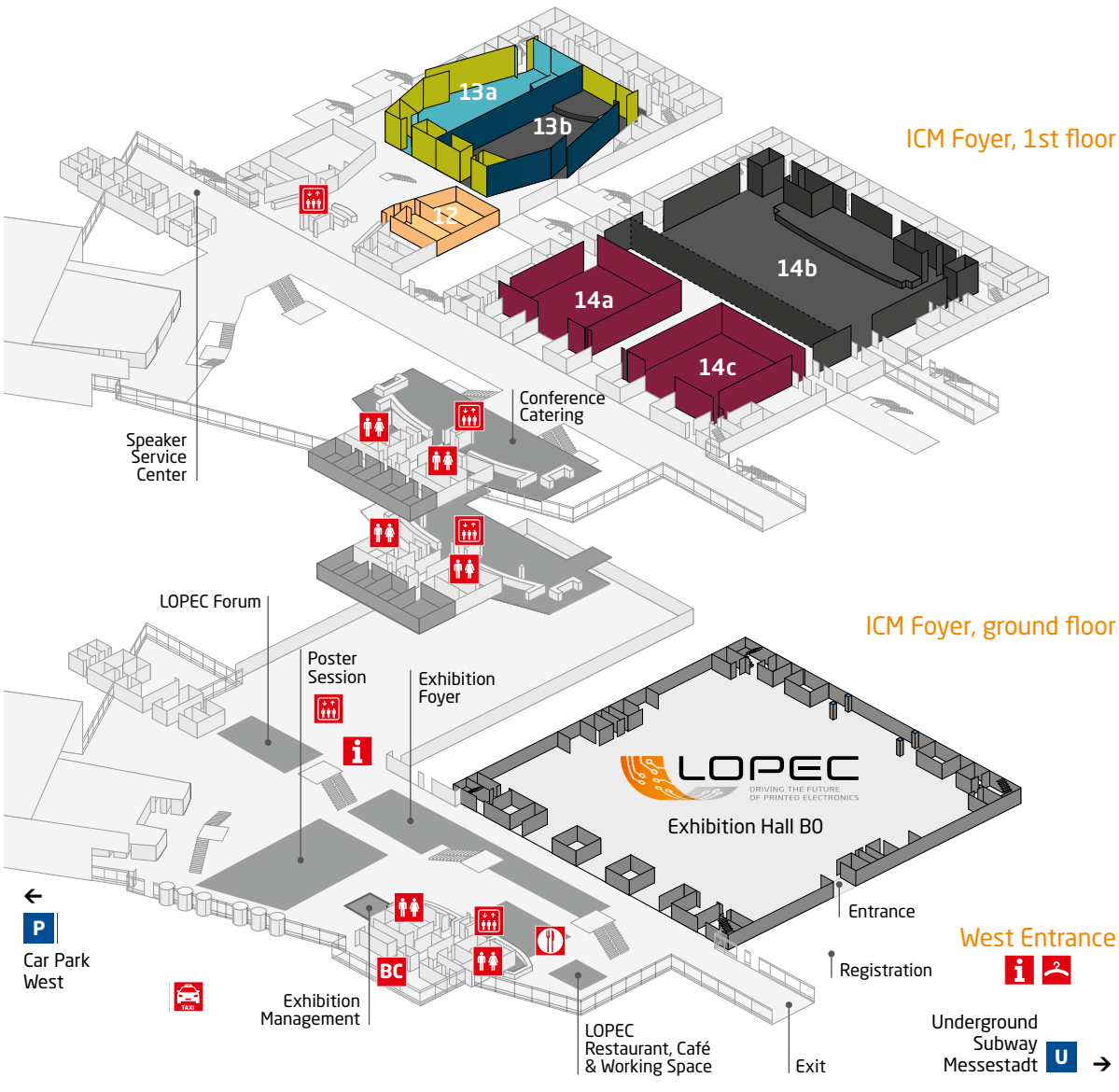
TECHNICAL CONFERENCE		SCIENTIFIC CONFERENCE	
11:30 Biomedical and healthcare applications Room 13a	**11:30** Flexible and large-area displays **12:10** Lighting Room 13b	**11:30** Strategic devices Room 14a	**11:30** Innovative processes with functional inks Room 14c
LUNCH			
14:00 Circular economy and green electronics Room 13a	**14:00** 3D structural electronics Room 13b	**14:00** Smart sensors for quality control Room 14a	**14:00** Innovative processes for patterning and adhesion Room 14c
COFFEE BREAK			
16:00 Energy Room 13a	**16:00** Smart textiles Room 13b	**16:00** Smart sensors for wearable applications Room 14a	**16:00** Advanced materials Room 14c

Exhibition – Hall B0 + ICM Foyer, ground floor

LOPEC Forum – ICM Foyer, ground floor

Floorplan

Plenary Session Room 14b | Short Courses Room 13a | Business Conference Room 13b | Technical Conference Room 13a/13b | Scientific Conference Room 14a/14c | Press Lounge Room 12



Subject to change | Last update: March 3, 2022

PLENARY SESSION | Room 14b

09:00 Eco-designed flexible and printed electronics gain support in Horizon Europe | **Dr. Henri Rajbenbach (invited speaker)** | Research program officer and senior expert I European Commission I BE

09:25 Accelerating innovation for smart medical devices | **Prof. Ronald Dekker (invited speaker)** | Principal architect I Philips I NL

09:50 Future directions in flexible electronics - Fraunhofer FEP | **Prof. Elizabeth von Hauff (invited speaker)** | Institute Director/Professor | Fraunhofer FEP | DE

10:15 3D IML touch panels manufactured with Functional Foil Bonding (FFB) | **Christoph Ernst (invited speaker)** | Sales Director | IT Kunststoff Helmbrechts AG | DE; **Christian Rühe** | GE-T GmbH | DE

10:40 Student Poster Award

10:50 COFFEE BREAK | 40 min

TECHNICAL CONFERENCE | Room 13a

Conference Chair: Prof. Gerwin Gelinck | CTO | Holst Centre - TNO | NL

Biomedical and healthcare applications
Session Chair: Dr. Kerry Adams
Director | Ventoux Ltd | GB

11:30 Electrochemical biosensors for biomedical and healthcare
Dr. Martin Peacock (invited speaker)
Co-founder and Director
Zimmer and Peacock Ltd I GB

11:50 Printed conformable sensors make your base layer a medical system
Markus Strecker
CEO I Teiimo GmbH I DE

12:10 Microneedle-based biosensor system for continuous monitoring of molecular biomarkers in the dermal interstitial fluid
Dr. Giorgio C. Mutinati
Senior Research Engineer / Project Manager
AIT Austrian Institute of Technology GmbH I AT

12:30 Large-area sensing surfaces and human machine interfaces enabled by hybrid printed electronics
Dr. Peter Zalar
Program Manager - Large-Area Printed Sensors
Holst Centre - TNO I NL

12:50 LUNCH | 70 min

Circular economy and green electronics
Session Chair: Jérôme Gavillet
EU programs manager | CEA-LITEN | FR

14:00 Biodegradable electronics as a contribution to a green and sustainably world
Dr. Christian May (invited speaker)
Division Manager I Fraunhofer FEP I DE

14:20 Circular economy for printed electronics
Dr. Gaël Depres
Circular economy working group manager
AFELIM I FR

14:40 Hybrid printed electronics as enabler for sustainability
Corne Rentrop
Project leader I Holst Centre - TNO I NL

15:00 Biodegradable organic TFT on biodegradable substrates
Dr. Michael Hoffmann
Senior Scientist I Fraunhofer FEP I DE

15:20 COFFEE BREAK | 40 min

Energy
Session Chair: Dr. Ronn Andriessen
Director | Solliance/TNO | NL

16:00 Drivers and constraints for an OPV 2.0 market
Dr. Ralph Paetzold (invited speaker)
CEO I ASCA I DE

16:20 Novel design for water electrolysis and fuel cell technology
Thi Hai Van Nguyen
PhD I Fundació Eurecat Centre Tecnològic de Catalunya I ES

16:40-17:00 Direct printed battery-on-flexible circuit boards for smart device applications (POETICS Project)
Paolo Melgari
Principal Scientist I CPI I GB

TECHNICAL CONFERENCE | Room 13b

Conference Chair: Prof. Gerwin Gelinck | CTO | Holst Centre - TNO | NL

Flexible and large-area displays
Session Chair: Edzer Huitema
Chief Technology Officer | E Ink Corporation | US

11:30 Electronic ink films can enhance automotive design, performance, and user experience
Pete Valianatos (invited speaker)
Senior Director, Strategic Initiatives
E Ink Corporation I US

11:50 Stretchable fully screen printed electrochromic displays
Ulrika Linderhed
Research Engineer
RISE Research Institutes of Sweden AB I SE

Lighting
Session Chair: Claudia Keibler-Willner
Head of department | Fraunhofer FEP | DE

12:10 Advancing OLED lighting technology for automotive applications
Ivo Rutten
Head of Display Business - Strategy and Partnerships I OLEDWorks I DE

12:30 Lamination of flexible printed electronics for increased environmental and physical stability
Paul Sparenborg (invited speaker)
Sales Director
LUMITRONIX® LED-Technik GmbH I DE

3D structural electronics
Session Chair: Jörg Franke
Professor (full) | Friedrich-Alexander Universität Erlangen-Nürnberg | DE

14:00 A flexible way to build 3D structural electronics
Richard Vereijssen (invited speaker)
Product Marketing Manager
Yamaha Motor Europe N.V. I DE

14:20 Polypropylene films and injection molding resins for In-Mold Structural Electronics
Eva Garcia
Advisor Engineer I REPSOL QUIMICA S.A. I ES

14:40 High throughput process for printed sensor integration in smart composite
Sophie Mahé
IPC I FR

15:00 Micro 3D printing of polymer functional structures via two-photon polymerization
Dr. Amruth C
Post-Doctoral Fellow I King Abdullah University of Science and Technology I SA

15:20 COFFEE BREAK | 40 min

Smart textiles
Session Chair: Marina Toeters
Designer in fashion technology | by-wire.net | NL

16:00 Electronic textiles: Use cases beyond wearable technology
Madison Maxey (invited speaker)
CEO I Loomia I US

16:20 Pressure sensor using conductive carbon: Cellulose nonwoven textile material
Dr. Xin Wang
Research scientist I RISE I SE

16:40-17:00 3D printing of conductive patterns on textiles
Evelyn Lempa
Research Scientist I Niederrhein University I DE

SCIENTIFIC CONFERENCE | Room 14a

Conference Chair: Prof. Luisa Torsi | Professor | University of Bari | IT

Strategic devices
Session Chair: Prof. Fabrizio Torricelli
Professor | University of Brescia | IT

11:30 Organic neuromorphic electronics
Paschalis Gkoupidenis (invited speaker)
Research Group Leader
Max Planck Institute for Polymer Research I DE

11:50 Fully inkjet-printed, all-solid micro super-capacitors based on mesoporous Mn3O4
Sushree Priyadarsini
PhD scholar
Indian Institute of Science Bangalore I IN

12:10 Understanding exciton dynamics in OPV and organic sensors
Dr. Tobias Neumann
Chief Executive Officer
Nanomatch GmbH I DE

12:30 Printed vertical transport narrow-channel NMOS and fully printed CMOS inverters
Devabharathi Nehru
Indian Institute of Science I IN

Smart sensors for quality control
Session Chair: Barbara Stadlober
Head of Research Group | JOANNEUM RESEARCH Forschungsgesellschaft mbH | AT

14:00 Ultra-thin and lightweight organic amplifier enabling bio-signal monitoring with reduced noise levels
Prof. Tsuyoshi Sekitani (invited speaker)
Professor I Osaka University I JP

14:20 Organic optoelectronic components in highly integrated systems for plasmonics sensing in food security/quality
Stefano Toffanin
Research Director I Consiglio Nazionale delle Ricerche (CNR) I IT

14:40 Printed integration of a memory device with a temperature sensor based on CuxS
Johannes Jehn
PhD Candidate I Hochschule München University of Applied Sciences I DE

15:00 Real-time water quality monitoring for lead and nitrate detection
Austin Peters
Device Systems Engineer
Brewer Science Inc. I US

Smart sensors for wearable applications
Session Chair: Donald Lupo
Professor | Tampere University | FI

16:00 Ferroelectrics and organic electronics integrated for biomedical and active matrix sensing
Herbert Gold
Senior Scientist I JOANNEUM RESEARCH Forschungsgesellschaft mbH I AT

16:20 Ultrathin and fully printed pressure sensor for biosignal monitoring
Karem Lozano Montero
Doctoral Researcher I Tampere University I FI

3D digital manufacturing of soft and smart sensing wearables
Danick Briand
Senior Scientist I Ecole Polytechnique Fédérale de Lausanne (EPFL) I CH

SCIENTIFIC CONFERENCE | Room 14c

Innovative processes with functional inks
Session Chair: Dr. Chloé Bois
General Manager - NSERC Industrial Research Chair for Colleges in Functional Printed Applications Ma | ICI | CA

11:30 Printed interconnects for integration of flexible GMR sensor arrays into eddy-current probes and contactless switching devices
Dr. Mykola Vinnichenko
Group Manager I Fraunhofer IKTS I DE

11:50 3D printing capacitive tactile sensors: A comparison study
Ana Silva
PhD student
University of Aveiro I PT

12:10 Study of functional and aesthetic stretchable inks for in mold electronics
Dr. Silvia Zabala
Head of Printed Electronics Area
Centro Stirling I ES

Innovative processes for patterning and adhesion
Session Chair: Dr. Henning Richter
VP, Research and Development | Nano-C, Inc. | US

14:00 Ultra-precise deposition: A versatile tool for microfabrication
Dr. Filip Granek
XTPL SA I PL

14:20 Printing process and system design for magnetic nanoparticle ink patterning and mapping
Prof. Silvia Schintke
Professor, Head of Laboratory of Applied NanoSciences I COMATEC-LANS, HEIG-VD/HES-SO University of Applied Sciences and Arts Western Switzerland I CH

14:40 Ultra-thin and eco-friendly selective metallization process
Samuel Stremsdoerfer
CEO I JET METAL I FR

15:00 Improving adhesion of printed layouts at the level of various polymeric substrates based on plasma pre-treatments
Dr. Rakel Herrero
Project Manager I NAITEC I ES

Advanced materials
Session Chair: Prof. Ronald Österbacka
Professor | Åbo Akademi University | FI

16:00 Highly conductive and stretchable filament for Fused Deposition Modeling
Hongye Sun
Post-doc I Karlsruhe Institute of Technology I DE

16:20 Industrial roll-to-roll manufacturing of solution-processed, non-fullerene based organic photovoltaics
Ngoc-Le Maria Lena Nguyen
Research Scientist I ASCA GmbH I DE

16:40-17:00 Flexible transparent heater fabricated from spray-coated doped ZnO/Ag-NWs/doped ZnO multilayers on polyimide foil
Dr. Theodoros Dimopoulos
Senior Scientist I AIT Austrian Institute of Technology I AT