

PhotonHub Demo Centre

OLED for Lighting and Signage Applications

Course Provider

Fraunhofer Institute for Organic Electronics, Electron Beam and Plasma Technology FEP, Dresden
Germany

Course Overview

Organic light-emitting diodes (OLEDs) are developing rapidly and are increasingly becoming the focus of industrial product development, particularly popular as OLED displays. However, OLED technology is also suitable for use in lighting and signage systems - as the only true flat light source on glass or even flexible films. First OLED lighting elements have now been presented by various companies.

This one-day hands-on training course provides an introduction to the technology of organic light-emitting diodes. The focus is on manufacturing processes, applications and products. The participants will be able to identify opportunities of the new technology and to specify possible technology and to specify possible products.

The course will focus on three technology demonstrators; 1) OLED Design Sample Kit; 2) OLED Automotive Demonstrator; 3) OLED/OPD sensor for plasmonic-based detection of contaminants in milk. Course attendees will learn how these devices are designed, fabricated and tested. They will also learn how early-stage prototypes can be scaled to volume manufacturing.

Target Audience

The course is ideally suited to product designers, developers, project managers, who want to build OLED lighting systems or want to inform themselves comprehensively about the technology. No special previous knowledge is required.

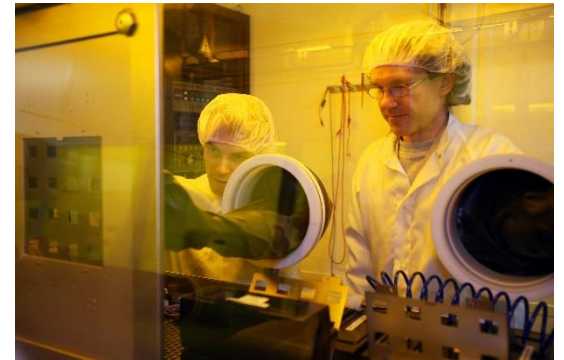
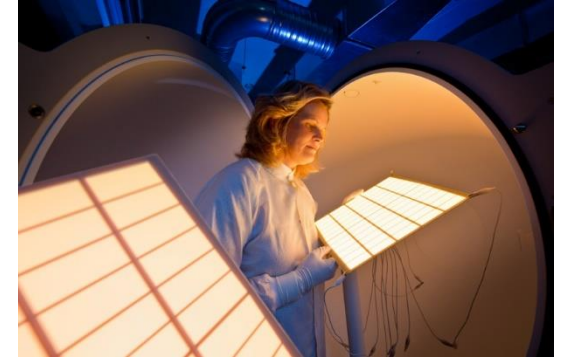
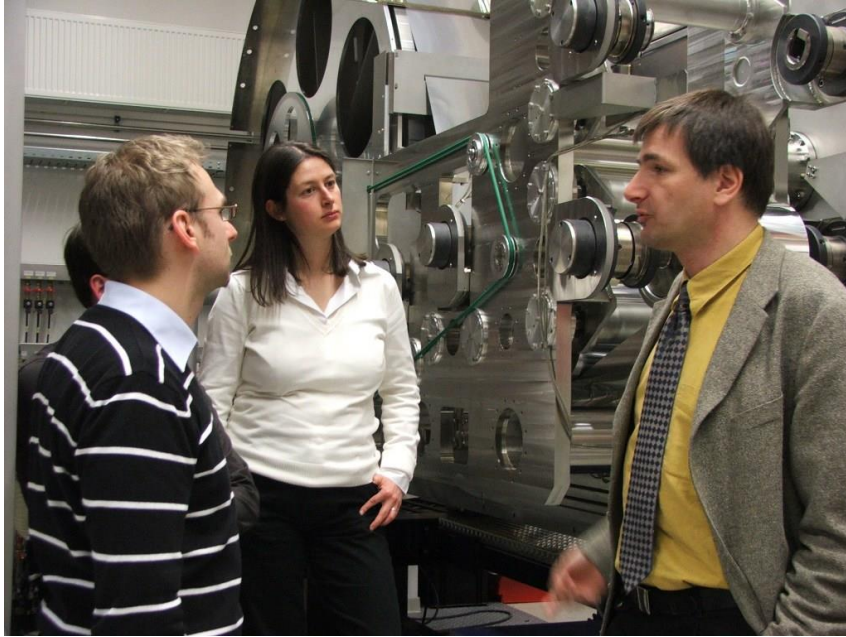
Expected Outcomes

- 1) Understanding of key features of OLED for lighting and signage applications
- 2) See the fabrication processes to produce OLED signage prototypes (hands-on activity)
- 3) See and evaluate working OLED devices by electro-optical characterization (hands-on activity)
- 4) Understand the OLED product design process and manufacturing ecosystem

Course Schedule

Time	Demo Activity
09:00 – 10:30	Welcome, Orientation, Course Introduction & Tutorial
10:30 – 11:30	Lab tour, clean room
11:30 – 12:30	Working lunch
12:30 – 13:30	Demo 1: OLED Design Sample Kit (hands-on)
13:30 – 14:30	Demo 2: OLED Automotive Demonstrator (hands-on)
14:30 – 15:30	Demo 3: OLED/OPD sensor for plasmonic-based detection of contaminants in milk (hands-on)
15:30 – 16:00	Follow-Up Questions & Close

Course Trainers



Course Director: Dr. Christian May

Course Manager: Ines Schedwill

Demo 1: Dr. André Philipp

Demo 2: Jan Hesse

Demo 3: Dr. Michael Törker



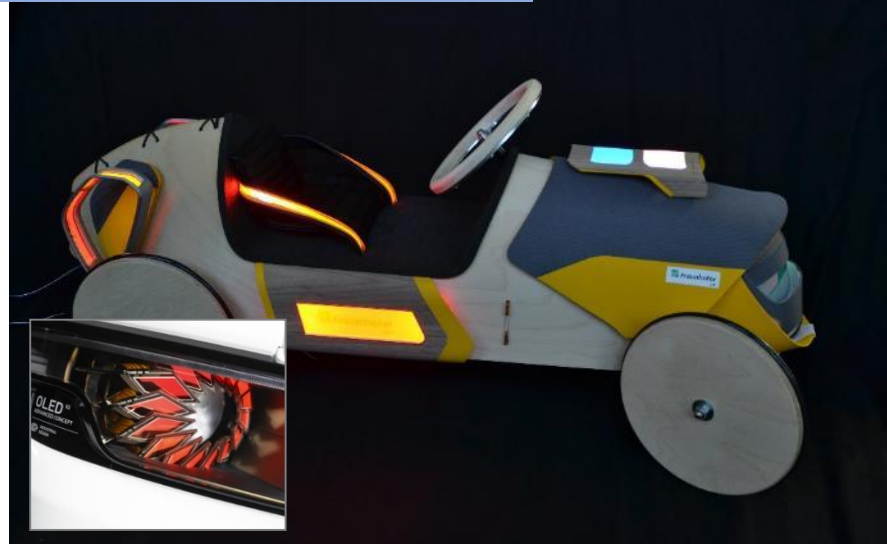
Course Demonstrators

OLED Design Sample Kit MONARCH



https://www.fep.fraunhofer.de/content/dam/fep/en/documents/Produktflyer/N06_Project-Monarch_OLED_Design_Sample_Kit_EN_net.pdf

OLED Automotive Demonstrator



OLED/OPD sensor for plasmonic-based detection of contaminants in milk



Course Location, Schedule & Cost



- Course Schedule (one day per month on request – exact dates to be confirmed)
- Number of people (Groups from 5 to 10 people per course)
- Course Fees (580 Euros per person, includes catering and project consumables)

Further Information

- christian.may@fep.fraunhofer.de
- www.fep.fraunhofer.de/OLED
- www.photonhub.eu/euphotonicsacademy

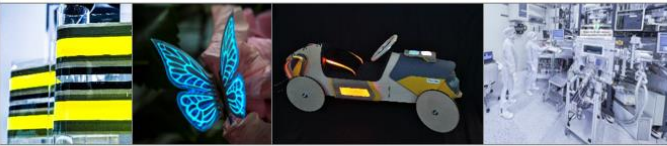
Course Material (technical hand-outs)



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Training Course Notes



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Keywords

OLED, Automotive, Lighting, Signage, Sensor, Manufacturing, Pilot Line, Ecosystem, Equipment

Relevant Technology & Application Domain

Technology: Large area organic photonics

Application: Relevant to all application domains