

Practical OLAE Training Course

COLAE is offering a practical course of training modules to provide participants with a thorough overview of each of the key technologies in Organic and Large Area Electronics (OLAE) together with direct hands-on experience of device fabrication in Europe's leading research facilities.

The course consists of five key modules covering the main OLAE devices and process: OLEDs, OPV, OLAE production technologies, organic TFTs and Smart Systems Integration. Participants can select any combination of modules to meet their training needs.

The course will have a strong practical element, with more than half of the time in each module spent in the laboratory rather than the classroom. Through the course, participants will have access to state of the art OLAE laboratories and processing equipment at Europe's leading research institutes. Due to the high level of laboratory work, participation will be limited to a maximum of between 10 and 16 persons on each of the modules.

The course is primarily designed for early stage researchers or those new to the area, particularly those in industry.

Each module is priced according to the duration and content of the course. Where more than one institute offers a module, please choose the module with the most convenient location or the most suitable content for your needs. Costs quoted include all fees but do not cover costs for travel and accommodation.

COLAE is a coordination and support action in the FP7 programme to speed up the commercialization and adoption of OLAE technologies in the EU.

For more information and to register for the course, please visit www.colae.eu/olae-training.

Module 1

OLAE LIGHTING and DISPLAY TECHNOLOGIES

Gain theoretical and hands on expertise in the operation and fabrication of OLEDs for lighting and display applications. Topics covered will include device architecture and materials, manufacturing processes, OLED performance and OLED characterisation as well as practical experience of OLED fabrication.

This module is available in two locations:

Location: Fraunhofer COMEDD, Dresden, Germany

Date: November 25-28 2013

Course duration: 1.5 days teaching and 2.5 days hands-on training

Cost: €2,500

Location: CPI National Centre for Printable Electronics, Sedgefield, UK

Date: March 2014

Course duration: 1 day teaching and 1 day hands-on experience

Cost: €1,000

Module 2

OLAE PV TECHNOLOGIES

Gain theoretical and hands on expertise in the design and fabrication of OPV technologies. Topics covered include types of OPV, typical materials and device structures, fabrication techniques, OPV characterisation as well as experience in fabricating and testing your own OPV devices.

This module is available in two locations with the Fraunhofer module concentrating on fabrication by evaporation of small molecule materials and the CSEM module on solution-processing for polymer-based devices.

Location: CSEM, Muttentz, Switzerland
Date: 3-5 December 2013
Course duration: 0.5 day teaching and 2 days hands-on training
Cost: €2,000

Module 3

OLAE PROCESSING TECHNOLOGIES

Gain theoretical and hands on expertise in manufacturing techniques related to OLAE. Topics covered will include an overview of printing techniques, ink formulation and characterisation, roll-to-roll processes

This module is available in two locations each covering a range of process techniques:

- The VTT module will provide experience of nano-imprint, inkjet printing, screen printing, flexography and gravure printing. In addition, there will be an opportunity for participants to spend a further day optimising component structure and print processes for an OPV component.
- The CETEMMSA module will cover screen printing and inkjet printing of conductive materials, integration with non-print components, up-scaling of processes and roll-to-roll screen printing on textiles.

Location: VTT, Oulu, Finland
Date: November 5-8 2013
Course duration: 3 days teaching and hands-on training with additional day available for print process optimization
Cost: €1,600

Location: CETEMMSA, Barcelona, Spain
Date: February 17-18 2014
Course duration: 2 days teaching (1/3) and hands-on experience (2/3)
Cost: €1,350

Module 4

OLAE - OTFT Based Technologies

Introduction to the theoretical and practical basics of organic thin film transistor (OTFT) technology. Topics will include OFET architecture, fabrication processes, measurement techniques and equipment. Devices will be fabricated with solution processed small molecules and with polymers.

Location: CSEM, Muttentz, Switzerland
Date: February 12-14 2014
Course duration: 0.5 days teaching and 2 days hands-on training
Cost: €2,000

Module 5

OLAE SMART SYSTEM INTEGRATION

Gain theoretical and hands on expertise in the design and fabrication of smart integrated systems based on OLAE technology. Topics will include: printing processes, integration of components into systems and functional testing.

This module is available in two locations. The first concentrating on the aerosol jet and inkjet printing of conductive wiring and hybrid integration with Si chips. The second will include hands-on sessions on inkjet printing, R2R processes and the manufacturing of printed battery demonstrators.

Location: Joanneum Research and NanoTecCentre, Weiz, Austria
Date: April 2014
Course duration: 0.5 day teaching and 2 days hands-on training
Cost: €1,200

Location: Fraunhofer ENAS, Chemnitz, Germany
Date: June 2014
Course duration: 2 days teaching and 2.5 days hands-on training
Cost: €2,250