

FREE OF CHARGE HANDS-ON WORKSHOP FOR STUDENTS

LEARN HOW TO PRINT AND CHARACTERIZE DIODES



On March 19 (co-located with LOPEC 2019 – the leading trade fair and most important congress for the printed electronics industry) the OE-A Working Group Education offers hands-on training in screen printed diodes.

The workshop program includes lectures on ink formulation and printing methods, as well as fundamentals of printed diodes and their characterization. During lab time, you will learn the basics of printing and curing various functional layers, as well as characterize your self-made diode.

Lecturers

- Prof. Dr. Ulrich Moosheimer – Munich University of Applied Sciences
- Prof. Dr. Jan Bernards – Fontys University of Applied Sciences
- Prof. Dr. Sébastien Sanaur – Centre Microélectronique de Provence
- Dr. Wolfgang Schmidt – Felix Schoeller Holding
- Mr. Louis-Dominique Kauffmann – Genes Ink

Details at a glance

- Date: March 19, 2018 – co-located with LOPEC
- Venue: Munich University of Applied Sciences
- Fees: Free of charge for students (proof must be provided)
- Number of attendees: maximum 15

Please register with Professor Dr. Ulrich Moosheimer (ulrich.moosheimer@hm.edu) by February 28, 2019.



Felix Schoeller



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HANDS-ON WORKSHOP FOR STUDENTS

Printing of Diodes



Tuesday, March 19, 2018

Munich University of Applied Sciences



Preliminary Agenda

8:30	Welcome	Prof. Dr. Jan Bernards
8:35	Introduction to the OE-A	Prof. Dr. Jan Bernards
8:50	Lecture: Screen Printing and Inkjet	Prof. Dr. Ulrich Moosheimer
9:20	Lecture: Diodes	Dr. Wolfgang Schmidt
9:50	Coffee break	
10:00	Lab safety	Prof. Dr. Ulrich Moosheimer
10:15	Lab: Printing of 1st layer (nano silver)	
10:45	Lab: Printing of 2nd layer (p-type semiconductor, PeDot)	
11:15	Lab: Printing of 3th layer (n-type semiconductor)	
12:15	Lunch	
13:15	Lecture: Conductive inks	Mr. Louis-Dominique Kauffmann
14:00	Lecture: Characterization of diodes	Prof. Dr. Sébastien Sanaur
15:00	Coffee break	
15:15	Lab: Characterization of diodes	Prof. Dr. Sébastien Sanaur
16:45	Lab / Lecture: Conclusions from the characterization	
17:00	Refreshments & Closing	

For more information and reservation, please contact:

Prof. Dr. Ulrich Moosheimer

Email: ulrich.moosheimer@hm.edu

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Open Points

- Sponsoring of three screens (about 300 €)
- Sponsoring of catering (about 200 €)
- Free LOPE-C conference tickets for lecturers

Time scale

- Architecture of diodes
- Test printing – December
- Characterization - December
- Decision point: January

Materials

- Substrate
 - o PET film: DuPont Teijin Films – Thane Gough confirmed
 - o Paper: PowerCoat from CCI Eurolam – Hortense Gaya confirmed
 - o Paper: Felix Schoeller – Wolfgang Schmid confirmed
- Ag-ink for screen printing
 - o CCI Eurolam – Hortense Gaya confirmed
 - o GenesInk – Stéphan Gachet confirmed
- P-Type for screen printing
 - o WO₃ from GenesInk – Stéphan Gachet confirmed
- N-type for screen printing
 - o ZnO from GenesInk – Stéphan Gachet confirmed

Update November 26th, 2018