

Next-Generation Optical MEMS Technologies and Devices Workshop
Lausanne September 12, 2016
1st Announcement

 **ESSCIRC-ESSDERC 2016**

12 to 15 September, 2016
Lausanne, Switzerland

The Next-Generation Optical MEMS Technologies and Devices Workshop will focus on a next-generation of MOEMS technologies and devices, global trends in the MOEMS fields, future applications, MOEMS device processes, design, methodology and manufacturing. The invited presentations will be given by top level speakers from the key industry in the sector (e.g. ST Microelectronics), research institutes and academia. The workshop will also give the unique opportunity to meet with high level experts from the MEMS and MOEMS areas, to look into the news from industry and exchange ideas.

The constant miniaturization of devices and, at the same time, the need for advanced and improved functionalities are an important driving factor for the development of new technologies with a high level of integration. In this frame the Lab4MEMS II project was established (<http://www.lab4mems2.ite.waw.pl/>). The project is an ENIAC Joint Undertaking involving 19 industrial, research and academic partners under the lead of STMicroelectronics. Its final goal is the setup of a pilot line for innovative Micro-Opto-Electro-Mechanical-Systems (MOEMS) by developing and combining several of the Key Enabling Technologies (KET) as indicated by the High Level Group - namely nanotechnology, micro-electronics and advanced packaging. Following a More-Than-Moore approach on novel technologies Lab4MEMS II focuses on the development, test and validation of devices such as pico-projectors, 3D infrared scanners and near-infrared micro-spectrometers. The success of the project will open the way to the worldwide commercialization of future applications such as contactless commanding of devices, holographic imaging and smart driving.

The attendees will receive a diploma confirming participation in the workshop.

Important Dates:

- Workshop date: Monday 12 September 2016,
- Time: 12:40 – 17:30

Venue:

- The Workshop will take place along with the [ESSCIRC ESSDERC 2016 conference](#) and tutorials at:
[Swisstech Convention Centre:](#)
Quartier Nord de l'EPFL
Route Louis-Favre 2
CH - 1024 Ecublens, Switzerland

Topics to be covered include the following among other related to the Next-Generation Optical MEMS Technologies and Devices :

- MOEMS/MEMS global and next future scenarios
- Innovative materials for MOEMS devices
- Non-linear mechanical behavior of electrostatically actuated micromirrors
- Application and control of the MOEMS microscanners

- Concepts for optical microsystems (MOEMS) and their miniaturization limits
- Integration issue in MEMS/MOEMS technologies in Industry 4.0 era

Speakers - MOEMS/MEMS experts:

- Luca Zanotti (ST Microelectronics, Italy)
- Piotr Grabiec (Instytut Technologii Elektronowej, Poland)
- Claudia Wiemer (MDM, IMM-CNR, Italy)
- Attilio Frangi (Politecnico Di Milano, Italy)
- Teodor Gotszalk (WEMiF Wroclaw University of Technolgy, Poland)
- Hans Peter Herzig (EPFL, Switzerland)

Invited presentations:

- *MOEMS global and next future scenarios*, Luca Zanotti (ST Microelectronics, Italy)
- *Innovative materials for MOEMS devices*, Claudia Wiemer (MDM, IMM-CNR, Italy)
- *Non-linear mechanical behavior of electrostatically actuated micromirrors*, Attilio Frangi (Politecnico Di Milano, Italy)
- *Application and control of the MOEMS microscanners*, Teodor Gotszalk (WEMiF Wroclaw University of Technolgy, Poland)
- *Concepts for optical microsystems (MOEMS) and their miniaturization limits*, Hans Peter Herzig (EPFL, Switzerland)
- *Integration issue in MEMS/MOEMS technologies in Industry 4.0 era*, Piotr Grabiec (Instytut Technologii Elektronowej, Poland)

Online Workshop Registration:

- <http://esscirc-essderc2016.epfl.ch/registration>

Workshop Organizers:

- Piotr Grabiec (ITE, Poland) grabiec@ite.waw.pl
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- Tomasz Bieniek (ITE, Poland) tbieniek@ite.waw.pl

On-line information:

- <http://esscirc-essderc2016.epfl.ch/essderc/workshops>
- <http://esscirc-essderc2016.epfl.ch/files/content/sites/esscirc-essderc2016/files/PDFs/workshop/Next-Generation%20Optical%20MEMS%20Technologies%20and%20Devices.pdf>
- <http://www.lab4mems2.ite.waw.pl/1st-lab4mems2-workshop-2016.html>