LUCEDA- Hands-on PIC Design Training at ECIO 2020

(organized by ePIXfab – The European Silicon Photonics Alliance)

When: 22nd June 2020 (1-day prior to ECIO)

Title of your hands-on-training:

Duration: 4-hours from 1pm to 5pm

When: 22nd June 2020

Where: C2N, 10 Boulevard Thomas Gobert – 91120 Palaiseau France (!!! Please note that this location is different from the ECIO conference location!!!)

Aim of the training:

Research in silicon photonics has made significant advances. The IPKISS integrated design framework is developed with the goal to bridge the gap between your Silicon Photonics idea and the fabricated chip. This two-day hands-on course will teach you step-by-step how to realize Silicon Photonics designs on Imec technology using IPKISS (http://www.lucedaphotonics.com/). This course covers the most important steps in the design process: layout, simulation and verification.

Target audience:
- Master level in engineering sciences or physics
- Background in semiconductors and photonics is recommended.

Description of the training and topics covered:
1. Fundamentals
2. Mask design through PDK
3. Physical simulation and optimization
4. Circuit simulation and optimization

Program (tentative):

During this training, we will dive into the simulation and optimization of photonic components and circuits. Attendees will learn methods needed for the simulation of components used in datacom and sensing such as multi-mode interferometer (MMI), splitters, grating couplers and WDM components like arrayed waveguide gratings (AWGs). Also, we will introduce the techniques used for optical circuit simulation. Attendees will learn through an example how to couple layout to circuit simulation using the IPKISS design methodology which greatly shortens the design cycle and improves design reliability. Finally, this session will also include techniques for the efficient generation of test masks commonly used for component characterization.

Tutor:
Chiara Alessandri

Practical Details:
- Please prepare a 64-bit system laptop (>2Gb free disk space) with Windows OS or Linux-based OS.

Logo of the company with short description:
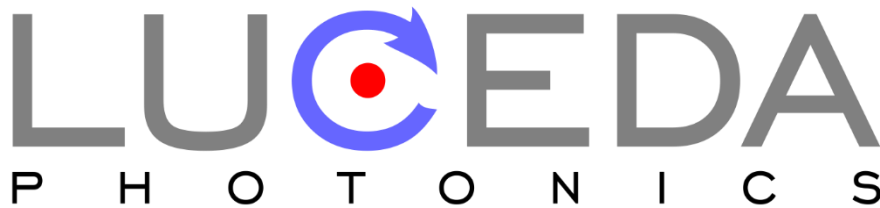
About Luceda:

Luceda Photonics helps photonic IC engineers to enjoy the same first-time-right design experience as electronic IC designers.

Luceda Photonics' software tools and services are rooted in over 50 years of experience in photonic integrated circuit (PIC) design. The team's expertise in the development of process design kits (PDK) and the design and validation of photonic integrated circuits is used by industrial R&D teams and research institutes worldwide.

The company started as spin-off from imec, the photonics group of Ghent University and Vrije Universiteit Brussel.

Luceda is a leader in the integrated photonics design arena, growing by more than 100%CAGR over the past years. It serves important players worldwide.

For more information, please visit www.lucedaphotonics.com