



3-day course

TeraHertz: New opportunities for industry

Special Focus Session : THz Materials Measurements

3-5 February 2015

Target audience

R&D managers, engineers and scientists seeking a comprehensive update on TeraHertz technologies and applications, a disruptively evolving field.

A general background in science & technology is sufficient.

Dates and schedule

- Tuesday, 3 February 2015, 1.30 pm to 6 pm
- Wednesday, 4 February 2015, 9 am to 6 pm
- Thursday, 5 February 2015, 9 am to 1 pm

Certification

A certificate of participation will be delivered at the end of the course.

Course venue

EPFL, Lausanne, Switzerland

Organization

- Nanostructured Materials Physics Laboratory (LPMN), Institute of Condensed Matter Physics (ICMP), School of Basic Sciences (FSB), Ecole Polytechnique Fédérale de Lausanne (EPFL)

In collaboration with

- SWISSto12 SA, a company issued from the EPFL Science Park

Overview

TeraHertz (THz), the frequencies between electronics and optics, was until recently the last unexploited part of the electromagnetic spectrum. The harnessing of THz-based technologies has the potential of impacting globally a vast number of industries, like both electronics in the 70's and optics in the 80's did.

THz applications span over a wide array of fields, including:

- Quality Control and Non-destructive testing
- Surface analysis
- Security
- Chemical and Bio-Medical analysis
- Telecommunications

Filling the TeraHertz "gap" has led to unprecedented creativity in the development and commercialization of TeraHertz sources, transmission components and detectors.

This year's edition will focus on THz materials measurements and applications.

Objectives

- Learn about the latest developments around material measurements towards TeraHertz
- Discover new application opportunities for THz material measurements
- Network with specialists in this emerging field

TeraHertz: New opportunities for industry

Register at Formation Continue UNIL-EPFL.

Registration form available at www.formation-continue-unil-epfl.ch/thz

Registration

Course fee :

800.- Swiss Francs (includes course material and refreshments)

Registration deadline:

5 December 2014

Confirmed speakers

- **Giovanni d'Amore**,
Keysight Technologies
- **Glenn Oliver**,
Du Pont Electronics & Communications
- **Philip Taday**,
Teraview
- **Jeffrey Hesler**,
Virginia Diodes
- **Fabian Friederich**,
Fraunhofer IPM
- **Ferenc Murányi**,
Speag
- **Andreas Henkel**,
Rohde & Schwarz
- **Alvaro Diaz-Bolado**,
AstraZeneca
- **David Daughton**,
Lake Shore Cryotronics
- **Luis Rolo**,
European Space Agency
- **Claire Watts**,
Boston College



Steering committee

- **Prof. Jean-Philippe Ansermet**, *School of Basic Sciences, ICMP, EPFL*
- **Dr. Alessandro Macor**, *SWISSto12 SA*
- **Dr. Emile de Rijk**, *SWISSto12 SA*

Training

- Keynote speakers from industry will give an overview of material measurements and challenges.
- Targeted exhibit with demonstrators
- More information on the event program, as well as on previous editions of this course at: <http://wiki.epfl.ch/thz>

Topics and Hands-on

- THz test & measurements instrumentations: Network Analyzers
- THz solid state sources
- THz on-chip measurements and material measurements fixtures
- THz photonic measurements
- Application opportunities of THz material measurements

