Training School

Photonic Integration for Aerospace, Satellite & Radar Technologies

3rd – 5th of February 2020, Paris & Palaiseau

Dear EUIMWP participants,

On behalf of the MC of the EUIMWP (CA 16220) COST Action, we are pleased to announce a **Training School** on "**Photonic Integration for Aerospace, Satellite & Radar Technologies**", to be held in **Paris**, **3rd to 5th of February 2020**.

Organized by Le Conservatoire National des Arts et Métiers (Le Cnam) and Thales Research & Technology (TRT) within the framework of the EUIMWP Cost Action (European Integrated Microwave Photonics), this training school covers the application of integrated photonics for aerospace, satellite & radar technologies.

1 - Space

- Free space optical communications
- Spatial environment, Cost-effective and low-SWaP telecommunications satellite payloads
- MWP-based Space Instrument
- Highly flexible and reconfigurable photonics-enabled satellite payloads

2 – Radar

- Compact high-frequency beam-steered systems based on IMWP technologies, radar systems of wider spectral bandwidth (>40 GHz), lower timing jitter (<15 fs), real time signal generation and processing based on IMWP technologies.
- Integrated Microwave Photonic Filters

The training school will be hosted at the facilities of CNAM in central Paris (for two days: 3-4 Feb.) and at TRT (for one day: 5 Feb.). The training school will include talks from experts based in industry and academia and is mainly intended for Ph.D. students and early career investigators. Visits of industrial laboratories TRT and III-V Lab will be organized.

Registration
Attendance at the Training School is free of charge, but requires registration. Please fill in the attached document and send it to:

anne-laure.billabert@lecnam.net

Deadline: December 15th, 2019

Location:

3-4 February:
Le Cnam, Salon d'honneur,
292, rue saint Martin, 75003 Paris

5 February:
Thales Research & Technology
Route départementale, 91120 Palaiseau

Organizing committee

Dr. Anne-Laure Billabert (anne-laure.billabert@lecnam.net)
Dr. Daniel Dolfi (daniel.dolfi@thalesgroup.com)
Prof. Stavros Iezekiel (iezekiel@ucy.ac.cy)

Grants for attending the Training School:
The EUIMWP (CA 16220) COST Action will offer a fixed grant to trainees coming from COST countries and Near Neighbour Countries (please check the eligibility conditions in the COST Vademecum, downloadable from the right menu of the COST website (https://www.cost.eu/funding/how-to-get-funding/documents-and-guidelines/). These grants are a contribution to travel, accommodation and meals expenses of trainees during their attendance at the course, but they will not necessarily cover all expenses. The grants will be given on a **first come, first served** basis, after checking that the eligibility criteria are met. The Grant Holder reserves the right to modify the number of grants according to budget availability. The grants will always be paid *a posteriori*, after checking that the grantee has attended the entire event and signed the attendance list every day.

How to apply for a grant from the EUIMWP COST Action?
Please send an email to Pepa Bayarri, the Grant Holder Manager of the EUIMWP COST Action (ghmanager.upv@gmail.com) expressing your interest in obtaining a grant, with the following documents attached:

- Document of your acceptance for the training school, signed by the organisers (a copy of their acceptation email will suffice).
- Any kind of proof to show your affiliation to your institution (a letter signed by your supervisor, a copy of your contract/scholarship, etc.).

Should you have any question regarding the COST grants, please contact Pepa Bayarri.

José Capmany (Chair and Grant Holder)
Anne-Laure Billabert (Local Organiser)
Pepa Bayarri (Grant Holder Manager), email: ghmanager.upv@gmail.com

AGENDA

Photonic Integration for Aerospace, Satellite & Radar Technology

3rd – 5th of February 2020, Paris & Palaiseau

✓ 1st Day – 3rd february 2020 **at Cnam** - Salon d'honneur,
292 rue St-Martin, 75003 Paris

Time	Speaker	Title	Affiliation
09:30-10:00		Welcome and coffee break	
10:00-10:10		Welcome at Cnam	
10:10-11:10	Dr.Frédéric Van Dijk	Indium Phosphide and silicon nitride photonic integrated circuits for LIDAR and microwave photonic applications	III-V Lab
11:10-12:10	Prof.Philippe Di Bin	Microwave photonics signal processing for frequency management and beamforming applications	XLIM
12:10-14:00	Lunch Break		
14:00-15:00	Dr.Chris Roeloffzen	Integrated microwave photonic chip platform consisting of hybrid integration of Silicon Nitride and Indium Phosphide chips: performance analysis and applications	LioniX

15:00-16:00	Dr.Jérome Bourderionnet	Waveform generation and optical beamforming photonic architectures for Radar and free-space communication applications	Thales Research & Technology
16:00-16:15	Coffee Break		
16:15-17:15	Dr.Colm Browning	"Photonic Techniques for High Frequency Carrier Generation and Data Communications"	Dublin City University

✓ 2nd Day – 4th February 2020 **at Cnam** - Salon d'honneur, 292 rue St-Martin, 75003 Paris

Time	Speaker	Tentative Title	Affiliation
09:30-10:30	Dr. François Deborgies	SMOS : A MWP-based Space Instrument	ESA
10:30-11:30	Dr. Michel Sotom	Photonics for telecom satellite payload applications	Thales Alenia Space
11:30-11:45	Coffee Break		
11:45-12:45	Prof.Angélique Rissons	Free Space Optics transmitter and receiver	ISAE
12:45-14:00	Lunch Break		
14:00-15:00	Prof. Tobias Kippenberg	Soliton Microcombs	EPFL
15:00-16:00	Prof. Stavros Iezekiel	"Optoelectronic oscillators and optical combs for aerospace applications"	University of Cyprus
	Visit of Cnam museum		

✓ 3rd Day – 5th February 2020 **at Thales Research & Technology**

Time	Speaker	Tentative Title	Affiliation
09:30-10:30	Dr. Alfredo De Rossi	Nanoscale Photonic Technologies for energy-efficient all-optical signal processing	Thales Research & Technology
10:30-11:30	Dr.Jean-Luc Polleux	Low cost and high performances approaches for Optical interconnects and Radio-over-Fiber with applications in beamforming, radar and aerospace applications	ESYCOM/ESIEE Paris
11:30-11:45	Coffee Break		
11:45-12:45	Dr. Benoit Charbonnier	Silicon photonics for communication and emerging applications	CEA Leti
12:45-14:00	Lunch Break		
14:00-15:00	Dr. David Marpaung	Integrated Microwave photonic filters	University of Twente
15:00-16:30	Visit of labs : TRT and III-V lab		