

*Modeling of optical passive/active integrated circuits and networks*

**ANNUAL INTENSIVE PHD TRAINING COURSE (AI TC) - I**

**GENERAL**

Date	26th - 30th January 2015
Location	Fraunhofer Heinrich-Hertz-Institute, Einsteinufer 37, 10587 Berlin
Organized by	VPIphotonics, contacts: André Richter, Beate Nikolov
Content	Background lectures Software demonstrations Hands-on design examples

**AGENDA**

**MONDAY, 26<sup>TH</sup> JANUARY 2015**

09:00 – 09:15	Welcome	
09:15 – 10:30	<i>System Impact of Component Characteristics I</i> Dr. Hadrien Louchet, VPIphotonics	lecture
10:30 – 11:00	Coffee break	
11:00 – 12:30	<i>System Impact of Component Characteristics II</i> Dr. Hadrien Louchet, VPIphotonics	demo, hands-on
12:30 – 13:30	Lunch break	
13.30 – 15.00	<i>Silicon Photonics – Technology Overview</i> Dr. Lars Zimmermann, IHP	lecture
15:00 – 15:30	Coffee break	
15.:30 – 17:00	<i>Indium Phosphide – Technology Overview</i> Dr. Norbert Grote, Fraunhofer HHI	lecture

TUESDAY, 27<sup>TH</sup> JANUARY 2015

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- 09:00 – 10:30 *Modeling of Passive Optical Structures and Devices I* lecture  
 Dr. Sven Burger, JCMwave
- 10:30 – 11:00 Coffee break
- 11:00 – 12:30 *Modeling of Passive Optical Structures and Devices II* demo, hands-on  
 Dr. Sven Burger, JCMwave
- 12:30 – 13:30 Lunch break
- 13:30 – 15:00 *Modeling of Passive Photonic Circuits I* lecture, demo  
 Dr. Sergei Mingaleev, VPIphotonics
- 15:00 – 15:30 Coffee break
- 15:30 – 17:00 *Modeling of Passive Photonic Circuits II* hands-on  
 Dr. Cristina Arellano, VPIphotonics

WEDNESDAY, 28<sup>TH</sup> JANUARY 2015

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- 09:00 – 10:30 *Semiconductor Lasers – Theory and Modeling I* lecture  
 Dr. Richard Schatz, KTH
- 10:30 – 11:00 Coffee break
- 11:00 – 12:30 *Semiconductor Lasers – Theory and Modeling II* lecture  
 Dr. Richard Schatz, KTH
- 12:30 – 13:30 Lunch break
- 13:30 – 15:00 *Modeling of Active Devices and Hybrid Circuits I* lecture, demo  
 Dr. Cristina Arellano, VPIphotonics
- 15:00 – 15:30 Coffee break
- 15:30 – 17:00 *Modeling of Active Devices and Hybrid Circuits II* hands-on  
 Dr. Sergei Mingaleev, VPIphotonics

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**THURSDAY, 29<sup>TH</sup> JANUARY 2015**

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- 09:00 – 10:30 *Photonic Integrated Circuits – From Design to Fabrication* lecture  
Dr. Twan Korthorst, Phoenix Software
- 10:30 – 11:00 *Coffee break*
- 11:00 – 12:30 *Before Fabrication – Defining Mask Layouts* demo, hands-on  
Dr. Remco Stoffer, Phoenix Software
- 12:30 – 13:30 *Lunch break*
- 13:30 – 15:00 *From Design to Fabrication – Application of HHI Design Kit* demo, hands-on  
VPIphotonics, Phoenix Software
- 15:00 – 15:30 *Coffee break*
- 15:30 – 17:00 *Open Session – Test design ideas, review background material*  
VPIphotonics, Phoenix Software

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**FRIDAY, 30<sup>TH</sup> JANUARY 2015**

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- 09:00 – 09:45 *Carrier Phase Estimation for Coherent high order QAM Systems* lecture  
Dr. Xiaodan Pang, Acreo
- 09:45 – 10:30 *Application of DSP Methods for Laser Characterization* lecture  
Dr. Darko Zibar, DTU
- 10:30 – 11:00 *Coffee break*
- 11:00 – 12:30 *Fraunhofer HHI – Laboratory Tour*  
organized by Dr. Norbert Grote, Fraunhofer HHI
- 12:30 – 13:30 *Lunch break*
- 13:30 – 15:00 *Examination*  
(for ICONE ESR fellows)
- 15:00 *Close*