Master thesis

» Implementation and Analysis of a Multi-Channel Sinc-Pulse Sequence based Transmitter in a Photonic CMOS Technology «

The research group
Circuit and System Technology
offers a **Master thesis**

Task Description:

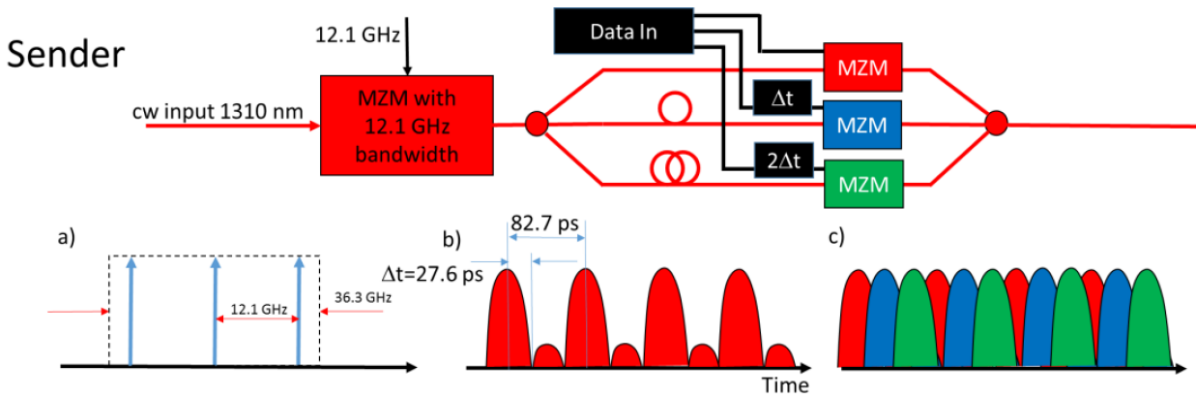
- **Analysis of benefits and limitations of a multi-channel data transmission system based on optical sinc-pulse sequences regarding SNR, component/system bandwidth, cross-talk, phase noise, power and area consumption etc.**
- **Electronic-photonic co-simulation using CADENCE Virtuoso and Verilog components.**
- **(optional) Design of a modulator driver**
- **Chip implementation of the system, including DRC and LVS checks.**

Figure: Concept of the data transmission system using time-inte
sequences. MZM: Mach-Zehnder Modulator.

Requirements:

- CV and current grade sheet.
- Experience using CADENCE Virtuoso recommended
- Fundamental knowledge of silicon electronics and photonics

In case of interest, please send an e-mail containing your latest transcript of records to Christian Kress (kressc@hni.upb.de)



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