



Silicon photonic devices: filters and modulators

Photonic integrated circuits in silicon photonic waveguides are expected to resolve several issues presently facing optical communication systems by providing systems that are small, consume little power and can be fabricated at low cost. The project aims at exploring this solution by designing, fabricating and testing integrated filters and modulators in silicon on insulator waveguide. Our laboratory model and design the silicon photonic devices that are outsourced for fabrication. Upon receiving the chip, we proceed to a full spectral characterization followed by a thorough performance evaluation in a system scenario. We are seeking a student eager to contribute to the modeling, design and experimental aspects of this project. Both fundamental research questions and applications are currently under investigation. The application fields of these devices are related to optical communication and sensing. This research is done in partnership with industrial sponsors.

A scholarship is available: \$24,000/year for a PhD and \$21,000/year for a Master's.

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Further information on the Chair
program can be found at:
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