

## PhD position - Electro-optic materials for neuromorphic photonic processing

### Context

In the framework of a multi-disciplinary project involving different research groups from Ghent University we are looking for a PhD candidate. The project deals with the integration of novel thin films with photonic circuits for telecom, quantum optics and neuromorphic computing. The following research groups are involved in this research:

- The SCRiPTS group - <https://www.scripts.ugent.be> – prof. Klaartje De Buysser
- The Liquid Crystals & Photonics group - <https://lcp.elis.ugent.be/> - prof. Jeroen Beeckman
- The Photonics Research group - <http://photonics.intec.ugent.be/> - prof. Dries Van Thourhout & prof. Peter Bienstman
- The IDLab Design group - <https://www.ugent.be/ea/idlab/en> - prof. Xin Yin

The candidate will supervised by prof. Jeroen Beeckman and prof. Peter Bienstman.

The PhD candidate will work together with four other PhD students that will be hired from the project. The candidate will focus on the design, realization and characterization of photonic components that make use of newly developed thin film deposition methods. During the PhD research electro-optic and optical nonlinear components should be enabled that offer unprecedented possibilities and go beyond the state-of-the-art in terms of efficiency, speed and power consumption while still offering the possibility for integration on silicon or silicon nitride photonic ICs. The newly developed electro-optic and optical nonlinear components will be integrated in neuromorphic photonic chips with the aim to process data beyond what is currently possible.

### Who are we looking for?

- You have an engineering master degree in applied physics, photonics or electronics.
- You have excellent analytical skills.
- You are a motivated team worker that is able to work independently.
- You speak and write English fluently (C1 CEFR level) and you have good communicating skills.

### Interested?

Send your resume and academic results to prof. Jeroen Beeckman – [jeroen.beeckman@ugent.be](mailto:jeroen.beeckman@ugent.be) before March 2020.

