Proposal acronym: **Proposal title:** Surname: First name(s): Research area: Sub-discipline of research area: Category of research:

Hybrid Access

Hybrid Silicon Photonics for Next-generation

Komljenović

Tin

Information science and Engineering ENG

Electronics, photonics, Optical engineering, photonics, lasers

developmental

Abstract:

The overall objective of this project is research and development of components needed for realizing highly-integrated and energy efficient optical transceivers and components for WDM-PON. The components developed will be based on photonic integration using silicon photonics integrated with compound semiconductors ("hybrid silicon photonics") to realize elements that provide gain, modulation, guiding and detection of light. Hybrid silicon photonics is the technology of choice to accomplish this, because the ability to make photonic devices on silicon promises to revolutionize communications by lowering the size and cost of optical communication components. It is a field that has seen rapid growth and dramatic changes in past years due to high integration potential and maturity and scale of chip processing silicon offers.

Does this proposal possess any of the sensitive ethical issues detailed in the ethical issues table?:

No.