

EMMSP
Erasmus Mundus Master of Science in Photonics

Duration: 2 years

Course description:

The objective of this two year master's course is to provide a top-level education in photonics with a strong European dimension. It provides a multi-disciplinary programme covering basic physics, material technologies, and electronics, applied in different fields. Students will be trained to become photonics specialists, synthesizing top-level research with a high-quality, multi-cultural education environment. The University of Gent (Belgium), the Free University of Brussels, (Belgium), the University of St Andrews (UK), the Royal Institute of Technology (Sweden), and the Heriot Watt University (UK) organize this Master's Course, each offering a particularly national or local perspective of the field. The research excellence of the five universities involved covers the fundamental research of this field (e.g. nano-, and micro-photonic components in silicon, III-V semiconductors and plastics) and applications (e.g. optical sensing, data and telecommunications, quantum cryptography, displays).

Students will spend one year in one country and a second year in another country, according to their preferences. During the first year (spent either in the UK, Sweden or Belgium), the focus will be on core photonics courses, whereas the second year (spent in any of the other institutions) will be dedicated to writing the Master thesis. In addition, each student will choose to take a number of advanced photonics courses, general multidisciplinary courses, and several transferable skills courses. A common course will be offered during the summer after the first year to bring all students together in one location. Students will be able to complete the Master thesis in their country of choice.

For photonics-related courses, the language of instruction is English. The local language (Dutch, Swedish or English) will be used for a limited number of elective courses designed to impart transferable skills. The expected student population is 50 each year. For these 50 students, there will be about 30 professors (counting only the core photonics professors). Successful students receive the degrees of the universities they have visited. The two Belgian universities deliver a joint degree as do the two institutions from the UK. As for the Swedish institution, they award their national Master's degree.

Applicants should have a Bachelor degree in electrical engineering, physics, applied physics or a related subject, with a level of achievement equivalent to a first class honours or a good second class. Other criteria that will be taken into account are awards, English proficiency, external references and details of earlier project work.

Website: <http://www.master-photonics.org/>

Partners:

Ghent University , Belgium (Co-ordinating Institution)
Free University of Brussels, Belgium
University of St Andrews, United Kingdom
Heriot-Watt University, United Kingdom
Royal Institute of Technology in Stockholm, Sweden

Contact:

Roel Baets
Ghent University
Department of Information Technology
Sint-Pietersnieuwstraat 41
9000 Ghent - BELGIUM
emmp@intec.UGent.be

Grant:

1 243 000 € (15 000 € consortium + 1 228 000 € scholarships), 2006
1 057 000 € (15 000 € consortium + 1 042 000 € scholarships), 2007
894 000 € (15 000 € consortium + 879 000 € scholarships), 2008
806 000 € (15 000 € consortium + 791 000 € scholarships), 2009