ERASMUS MUNDUS JOINT MASTER DEGREE

SmartNet
The Smart Telecom And Sensing Networks
smartnet.astonphotonics.uk

PROGRAMME DESCRIPTION

SMARTNET is a two-year joint master degree program, of 120-ECTS, developed by three leading universities (**Aston University**, **Université Paris-Saclay** / **Télécom SudParis**, and **University of Athens**) with the mission to provide unique training opportunities to talented students in the inter-disciplinary fields of photonic and 5G wireless technologies for data communication, sensing and big data processing.

A set of 18 industrial partners support **SMARTNET** and will contribute to the student training experience by offering industrial internships to bridge the gap between academic knowledge and practice.

CURRICULUM & MOBILITY

Incoming students may start from any of the three institutions where they will spend the first two semesters of their studies and receive the core part of their training. The third semester will be carried out in a different institution. It will include specialization courses that enhance the interdisciplinarity of the offered degree. During the fourth semesters students will conduct an individual project and report on the results.

Six well-defined mobility paths have been designed to award double degrees depending on the chosen curriculum.

MOBILITY 1 ASTON → TSP-TPT, 5G Broadband Infrastructures.	**MOBILITY 2** ASTON → UoA, Advanced 5G Network Architectures.	**MOBILITY 3** TSP-TPT → ASTON, Energy Efficient Smart Networks.
MOBILITY 4 TSP-TPT → UoA, High Capacity 5G Network Systems.	**MOBILITY 5** UoA → ASTON, Connectivity Technologies for Smart Network Systems.	**MOBILITY 6** UoA → TSP-TPT, Big Data Analytics and 5G.

By the end of the programme, students will have completely mastered the areas of wired and wireless communications, photonic microwave devices, network architectures, signal processing, big data information systems and analytics.

Smartnet Consortium

Aston University,
Birmingham, UK, Aston, Coordinator

Aston University
Birmingham

Université Paris-Saclay (UPSaclay)
Télécom ParisTech, TPT, Paris, France
Télécom SudParis, TSP, évry, France

TELECOM ParisTech   TELECOM SudParis

Institut Mines-Télécom
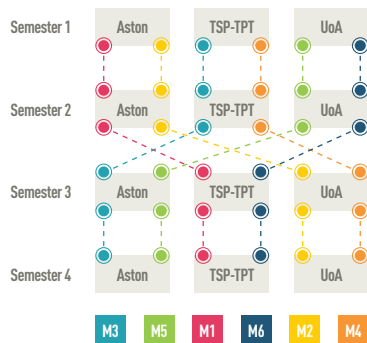
University of Athens,
Athens, Greec, UoA

National and Kapodistrian
UNIVERSITY OF ATHENS

INDUSTRIAL PARTNERS

Airbus, UK • OTE, Greece • Orange Labs, France • FAZ Technology, Ireland • Coriant R&D, Germany • AIT, Greece • Yenista, France • Arden Photonics, UK • Keopsys, France • Orange Polska, Poland • CEMENTYS, France • EKINIOS, France • KTN, UK • EPIC, France • Network Rail, UK • Branscan, UK • Thales, France • Nokia Bell Labs, France

SMARTNET MOBILITY PATHS

By the end of the programme, students will have completely mastered the areas of wired and wireless communications, photonic microwave devices, network architectures, signal processing, big data information systems and analytics.

Semester 1	Aston	TSP-TPT	UoA
Semester 2	Aston	TSP-TPT	UoA
Semester 3	Aston	TSP-TPT	UoA
Semester 4	Aston	TSP-TPT	UoA

M3 M5 M1 M6 M2 M4

PARTICIPATION FEES

FEES FOR PARTICIPATION IN THE MSC PROGRAMME AMOUNT TO:

- **4500€** per year for Programme Country students
- **9000€** per year for Partner Country students

PROGRAMME COUNTRY STUDENTS INCLUDE:

- students from the 28 EU Member States;
- students from one of following countries: Iceland, Liechtenstein, Norway, Turkey, FYRoM;
- students who have resided or carried out their main activities (studies, training or work) for more than 12-months over the past five years in any of the above countries.

PARTNER COUNTRY STUDENTS INCLUDE STUDENTS FROM ALL OTHER PARTS OF THE WORLD.

Participation fees cover the institutional enrolment at the hosting institutions that includes tuition fees, as well as, fees for student insurance, according to the EU guidelines for the EMJMD programmes. Participation fees do not cover travel costs from student's point of departure either to a host institution or from one host institution to another, travel document costs, accommodation and living expenses or any other personal costs.

SCHOLARSHIPS

SMARTNET is supported by the Erasmus+ EMJMD programme with a limited number of scholarships for top-ranked applicants.

About **26 EMJMD scholarships** will be available every year, for the next three years, starting from 2019-2021. Namely:

- 4 scholarships for students from Programme Countries.
- 15 scholarships for students from Partner Countries.
- 7 scholarships reserved for students of the targeted regions:

ENI East: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine.
ENI South: Algeria, Egypt, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia.
Asia: Afghanistan, Bangladesh, Bhutan, Cambodia, DPR Korea, Indonesia, Laos, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam.
Central Asia: Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan, Uzbekistan.

EMJMD scholarships will provide contributions to participation, travel, installation and subsistence costs.

Co-funded by the
Erasmus+ Progamme
of the European Union

5G networks at the cutting edge - Become a student of one of the key multidisciplinary engineering areas. We provide training in the areas of mobile and wireless communication systems, high-capacity core fibre-optic networks, photonic technologies, sensing, machine learning and Big Data.

Admission Criteria

Admission may be granted to applicants who meet the following minimum common criteria:

- **A Bachelor degree** (180 ECTS min) in one of the following fields: telecommunications, electronic or electrical engineering, computer science, physics, mathematics or similar.
- **Cumulated Grade Point Average** (CGPA) of at least 75% of the scale maximum.
- **Advanced English language skills** that correspond to at least C1 level of the Common European Framework of Reference.

Application Procedure

To apply, please login to the **online application system** with the link that is available at the SMARTNET website.

You should provide all required supporting documents:

- passport copy,
- curriculum vitae,
- motivation letter,
- grade transcripts,
- degree certificate,
- residence certificate,
- English certificate,
- 2 reference letters,
- thesis summary.

Aston Institute of Photonic Technologies manages the SMARTNET admission process, scholarship applications, and globally oversees the exchange programme.

Application Deadlines

- 15th of February 2019, for Erasmus+ EMJMD scholarship positions
- 15th of April 2019, for self-funded placements

Contact

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