ERASMUS MUNDUS JOINT MASTER DEGREE

Smart Telecom and Sensing Networks (SMARTNET)

Aston University Birmingham | TELECOM SudParis | TELECOM ParisTech | HELLENIC REPUBLIC National and Kapodistrian University of Athens

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 associate partners* will contribute to the students' training experience by offering industrial internships that can bridge the gap between academic knowledge and practice.

Curriculum and 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, defines the *5G Broadband Infrastructures* curriculum.

Mobility 2: ASTON → UoA, defines the *Advanced 5G Network Architectures* curriculum.

Mobility 3: TSP-TPT → ASTON, defines the "*Energy Efficient Smart Networks*" curriculum.

Mobility 4: TSP-TPT → UoA, defines the *High Capacity 5G Network Systems* curriculum.

Mobility 5: UoA → ASTON, defines the *Connectivity Technologies for Smart Network Systems* curriculum.

Mobility 6: UoA → TSP-TPT, defines the *Big Data Analytics and 5G* curriculum.

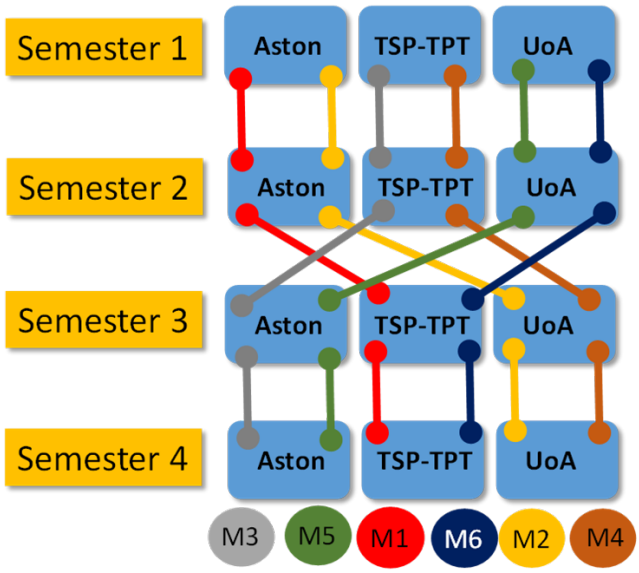
SMARTNET consortium

- **Aston University** (Birmingham, UK, Aston), Coordinator
- **Université Paris-Saclay** (UPSaclay), **Télécom SudParis** (Évry, France, TSP), **Télécom ParisTech** (Paris, France, TPT)
- **University of Athens** (Athens, Greece, UoA)

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.

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: i) students from the 28 EU Member States; ii) students from one of following countries: Iceland, Liechtenstein, Norway, Turkey, FYRoM; iii) 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 and include 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 for 2019-2021 intake. Namely:

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

ENI East *: Armenia, Azerbaijan, Belarus, Georgia, Moldova, Ukraine*

ENI South*: Algeria, Egypt, Israel, Jordan, Lebanon, Libya, Morocco, Palestine, Syria, Tunisia*

Asia*: DPR Korea, Indonesia, Malaysia, Maldives, Mongolia, Pakistan, Philippines, Sri Lanka, Thailand, Vietnam*

Central Asia-LMI*: Kyrgyzstan, Tajikistan, Uzbekistan*

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

Admission Criteria

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

- A Bachelor degree (of at least 180 ECTS) 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 (i.e. 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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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.