

## Job Title: Young Graduate Trainee for Disruptive Technologies for Positioning, Navigation and Timing

Req ID 3863 - Posted 19/01/2018



### EUROPEAN SPACE AGENCY

Young Graduate Traineeship Opportunity in the Directorate of Navigation.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. Applications from women are encouraged.

#### Post

**Young Graduate Trainee for Disruptive Technologies for Positioning, Navigation and Timing**

This post is classified F1.

#### Location

ESTEC, Noordwijk, The Netherlands

#### Our team and mission

The Young Graduate (YGT) Trainee will be part of the GNSS/Galileo Evolution, Implementation Office, GNSS Evolution Programme & Strategy Division, Strategy and Programme Department, Directorate of Navigation.

The Division of GNSS (Global Navigation Satellite System) Evolution Programme and Strategy, within the Directorate of Navigation, is responsible for identifying novel space and ground technologies and assessing its relevance for consideration in evolutions of European GNSS systems (Galileo and EGNOS), and eventually to implementing related technology R&D pre-developments and research studies. It is also responsible for identifying and assessing disruptive technologies that could be considered for alternative future space-based Positioning, Navigation and Timing, including hybridization with sensors, terrestrial and alternative technologies.

Interested candidates are encouraged to visit the ESA website: [www.esa.int/ESA](http://www.esa.int/ESA)

#### Field(s) of activities

The Traineeship activity will focus on the assessment of disruptive technologies for Positioning, Navigation and Timing (PNT), in the following domains:

- Technologies for positioning and timing in future wireless networks (5G) – IoT, autonomous vehicles, drones -, including the role of GNSS and the seamless integration with sensors and alternative technologies.
- Novel concepts and technologies for satellites at different orbits (e.g. Highly Elliptical Orbit, Inclined Geosynchronous Orbit, Low Earth Orbit).
- High Altitude Pseudo-Satellites (HAPS) for PNT
- Quantum technologies for PNT (clocks, sensors, secure communications, key distribution)
- Solar system PNT using pulsars.
- Relativistic Positioning Systems.
- Neutrino communications for PNT.

#### Technical competencies

Knowledge of relevant technical domains

Relevant experience gained during internships/project work

Breadth of exposure coming from past and/or current research/activities

Knowledge of ESA and its programmes/projects

#### Behavioural competencies

Self Motivation

Communication

Continuous Learning

Cross-Cultural Sensitivity

Teamwork

#### Education

Applicants should have just completed, or be in their final year of a University course at Masters Level (or equivalent) in a technical or scientific discipline.

#### Additional requirements

Relevant experience in one or several domains identified in this vacancy is considered an asset and a general understanding of GNSS systems and relevant technologies is considered important.

The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.

Candidates are expected to have a proactive attitude to solving problems and "hands-on" experience in using analysis and engineering tools.

In addition, applicants should demonstrate good interpersonal skills and the capacity to work both independently and as part of a team.

During the interview the candidates' motivation and overall professional perspective/career goals will also be explored.

#### Other information

For behavioural competencies expected from ESA staff in general, please refer to the [ESA Competency Framework](#).

**The closing date for applications is 04 February 2018.**

If you require support with your application due to a disability, please email [contact.human.resources@esa.int](mailto:contact.human.resources@esa.int).

Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, and the UK, or Slovenia as an Associate Member, Canada as a Cooperating State, Bulgaria, Cyprus, Latvia, Lithuania and Slovakia as European Cooperating States (ECS).

Priority will first be given to candidates from under-represented Member States.

In accordance with the European Space Agency's security procedures and as part of the selection process, successful candidates will be required to undergo basic screening before appointment