Training Opportunity for Portuguese Trainees

Reference	Title	Duty Station
PT-2016-TEC-EEA	Advanced antenna design for satellite applications	ESTEC

Overview of the Unit missions:

The Electromagnetics and Space Environment Division covers project support and R&D activities. This includes antennas and sensor systems, sub-millimetre wave instruments and equipment, wave propagation and interactions, electromagnetic and RF compatibility (EMC/RFC), electrostatic charge/discharge (ESD) and space environments and their effects. The Division also has competencies and facilities for Antenna and EMC testing.

Overview of the field of activity proposed:

The domains covered by the antenna section include stand-alone radiators, reflector antennas and arrays (active or passive) antennas. The section addresses system aspects as well as interference effects between antennas and the spacecraft structure in a frequency range 400 MHz to 1 THz. For the sub-millimetre domain, the section is in charge of instruments and related technologies.

The antenna section provides technical support to ESA projects for Earth Observation, Telecommunications, Navigation and Science, including “in-house” design and trade-offs for technology developments.

The section supports all antenna development stages from the early RF design and analyses up to the final measurements. If possible the measurements are performed in the ESTEC antenna test facilities that are managed by the section.

The selected candidate will be offered a task related to current challenges within one of the domains indicated above. The candidates background will be taken into account in the selection of the task. Experience in antenna modelling and design as well as in payload measurement and test techniques would be highly desirable.

Required Education:

Applicants should have just completed a University course at Masters Level (or equivalent) in an Engineering or scientific field, with emphasis on electromagnetics or physics.

Applicants should have good interpersonal and communication skills and should be able to work in a multi-cultural environment, both independently and as part of a team.

Applicants must be fluent in English and/or French, the working languages of the Agency. A good proficiency in English is required.