

## FROM HERE.

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# INTERNSHIP ON NEW EUMETSAT DATA COLLECTION SYSTEM (DCS)

Data Collection Systems are provided by several geostationary meteorological satellite operators, giving almost total coverage around the world, except the Polar Regions. The DCS is particularly useful for the collection of data from remote and inhospitable locations where it may provide the only possibility for data relay. The Meteosat satellites located at 0° longitude, and over the Indian Ocean, acquire DCP data, in the form of observations and environmental parameters, from operators of DCP, which are located within the footprint of the satellites.

New Data Collection Platform (DCP) receivers have been developed in the frame of the new EUMETSAT's Geostationary Programme i.e. MTG (Meteosat Third Generation). The new receivers are fully developed in software and are able to increase the capacity of the EUMETSAT's DCS.

The purpose of this internship is to study and analyse through simulations and ad-hoc software tools the performance margins of the DCP receivers. The new S/W simulation tools shall be developed or tailored to allow parameterisation of the different scenarios, including extreme degraded cases.

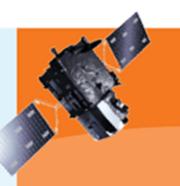
This internship should provide a good opportunity to extend the telecommunication and signal processing skills and knowledge learned in an academic environment by applying them on complex, high performant EUMETSAT space to ground chains.

## **DUTIES**

Review existing DCP Receivers design and Test Tools documentation;
Familiarisation with the DCP Receiver software and software Test tools;
Generate a set of operational and non-operational scenarios aiming at measuring the

Evaluate the performance of such receiver under the different scenarios:

Propose and fine tune the DCP receiver configuration based on the different scenarios and run end-to-end tests with the selected receiver configurations; Generate corresponding reports





LOCATION

Darmstadt, Germany



#### **OUALIFICATION**

Candidates must be in the last year of the MSc. degree in Telecommunication or equivalent.

Applications from post-graduate students will be studied on a case-by-case basis.



#### LANGUAGES

Candidates must be able to work effectively in English and have some knowledge of French.



20 April 2020

performance margins of the new DCP receivers;
Tailor and configure the software Test tools in order to run the selected operational and non-operational scenarios;

and Technical Notes (as needed); Generate a final technical report.

### SKILLS AND EXPERIENCE

Develop a practical and accurate understanding of the space to ground and ground to space communication links within the different EUMETSAT programmes (MSG and MTG;)

Acquire valuable experience in the understanding and assessment of EUMETSAT Ground Station technical documentation;

Familiarise with satellite communications simulation and test tools;

Support EUMETSAT with additional elements for future technical trade-offs and ground stations configuration and operations.

# **EMPLOYMENT CONDITIONS**

Length of internship: 6 months Anticipated start date: May 2020

Interns who have recently finished their studies will receive German minimum wage.

No salary is paid to interns who are still in studies, however a daily allowance and contribution to travel / accommodation costs may be provided. The conditions will be established taking into account the requirements and policy of the intern's educational institution.

Interns are responsible for providing their own health and accident insurance and for finding their own accommodation in Darmstadt.

EUMETSAT is committed to providing an equal opportunities work environment for men and women. Please note that only nationals of EUMETSAT Member States may apply. The EUMETSAT Convention requires that Staff shall be recruited on the basis of their qualifications, account being taken of the international character of EUMETSAT.

## **ABOUT EUMETSAT**

EUMETSAT is Europe's meteorological satellite agency. Its role is to establish and operate meteorological satellites to monitor the weather and climate from space - 24 hours a day, 365 days a year. This information is supplied to the National Meteorological Services of the organisation's Member and Cooperating States in Europe, as well as other users worldwide.

EUMETSAT also operates several Copernicus missions on behalf of the European Union and provide data services to the Copernicus marine and atmospheric services and their users.

As an intergovernmental European Organisation, EUMETSAT has 30 Member States (Austria, Belgium, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, The Netherlands, Norway, Poland, Portugal, Romania,

Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.)

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