

## **Project 18.29: Weather monitoring for satellite communications**

**Company: Goonhilly Earth Station Ltd.**

**Supervisor: Eddy Search**

**Location: Goonhilly Earth Station, Helston, Cornwall**

### **Company Description:**

Goonhilly is one of the most recognised names in the Space Industry. It's famous throughout the world for being one of three earth stations involved in the first trans-Atlantic TV transmission (via Telstar) in 1962. It was present at the birth of Intelsat, Eutelsat and Inmarsat as well as the birth of the Internet as networks on the East and West coasts of USA were linked to Europe.

Goonhilly is synonymous with innovative British engineering and technological skills and for being at the heart of the satellite communications industry. Now, under the private ownership of Goonhilly Earth Station Ltd (GES Ltd), it continues to expand its commercial satellite communication service portfolio and is leading the way on private sector deep space communications.

Through GES Ltd, Goonhilly has received a major private capital investment programme, and this has recently been backed by UK Government support: GES Ltd has been given "Enterprise Zone" status – the government's flagship programme for technology parks which will bring significant additional capital investment and offer benefits to incoming customers.

GES Ltd is winning new commercial business and providing services to all of the major satellite operators as well as providing a diverse portfolio of space communication and data related services to a broad customer base.

At GES Ltd, we welcome partnerships and collaborations and we are motivated to find the best solutions for all of our customers.

### **Project Description:**

The project will involve identifying and testing existing electrical, mechanical, and IT equipment for weather monitoring and recording at Goonhilly, including sensors, data recorders, and computing infrastructure. Research will be conducted into the best weather station setup for satellite and deep space applications. Critical parts may have to be replaced and ordered. A complete system will have to be designed to allow for continuous weather data collection, monitoring/processing and archiving. The design will have to take into account requirements of the applications, and gather weather observations critical to maintaining a high standard of operations. The applicant will be driving the project with the help of the supervisor and the on-site engineering and IT teams.

**Applicant Specification:**

The project is particularly suited for somebody studying towards a degree in electrical engineering, electronics or IT who may want to apply their skills to the space sector and learn more about opportunities in this growing industry, or someone in space science who would like to gain an understanding of the hardware required to operate an earth station. Attention to detail is a must. They need to be self-motivated, results-driven, and good at working in a team and on their own

**Further details:**

8 weeks minimum fixed term contract to be agreed with successful candidate but nominally with a start date around 2<sup>nd</sup> July 2018 (after the SPIN Induction Day will be held at the Satellite Applications Catapult, Harwell on 18<sup>th</sup> June 2018). Salary is £1,200 per calendar month.

**Closing Date for Applications: 17:00, Friday 1 June 2018**

Applications should be made through the online form attaching a CV, before the closing date. Please note that elements of the form left incomplete will be deemed to render the application ineligible. They will be checked for eligibility and forwarded to the employer.

**Apply here:** <https://sa.catapult.org.uk/people/space-placements-industry-spin/>