

## **Analysis of data collected by the ExoMars Trace Gas Orbiter mission to Mars**

**Code:** 19/35

**Company:** The Open University

**Location:** The Open University, Milton Keynes

### **Company Description:**

The Open University is an internationally recognised research leader in planetary and space sciences and the development of space instrumentation. Covering a wide range of disciplines from astrobiology to electrical engineering, geochemistry to quantum physics; and technologies from electronic imaging to remote sensing, mass spectroscopy to novel sensors; Open University researchers are often found in key roles in international space science missions such as Rosetta, ExoMars, Euclid, JUICE and Athena; with much of the activities performed in collaboration with Space Agencies, Universities and companies around the World. This research also informs our world-leading teaching in the Physical Sciences, Engineering and Earth and Environmental Sciences

### **Project Description:**

The Ultraviolet and Visible Spectrometer (UVIS) is part of the NOMAD instrument on-board the European Space Agency's ExoMars Trace Gas Orbiter mission to Mars. The mission is now well into its science phase and UVIS has collected a large quantity of spectral data of the Martian atmosphere. This project will exploit this dataset in order to assist in further improving the performance of the UVIS CCD detector, with the goal of providing a significant improvement to the quality of the atmospheric science gained from the instrument throughout the mission.

### **Applicant Specification:**

Project holder responsibilities:

1. Processing of spacecraft data
2. Analysis of processed data
3. Archiving of results
4. Development of software for the analysis/visualisation of large data sets
5. Write-up of the results

The project offers the applicant:

- To work as part of a spaceflight team involved in the latest European Space Agency mission to Mars

- Development of skills relating to the processing and analysis of spacecraft data
- Opportunities to develop good analytical skills

**Minimum Requirements:**

- Studying for a degree in Physics/Maths/Computing or related field.
- Knowledge of computer programming, for example Python or MATLAB
- Confident using Microsoft Office
- Work well in a group / good team working and inter-personal skills
- Able to plan individual workload

**Further details:**

8 weeks fixed term contract to be agreed with successful candidate but nominally with a start date 1<sup>st</sup> July, 2019 to attend the SPIN Induction day at the Satellite Applications Catapult, and completion before 20<sup>th</sup> September for the Showcase the following week. Salary rate is £22,659 per Annum gross.

**Closing Date for Applications: 5pm on Monday 31 May**

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.