

## **Characterising the imaging detectors for the Soft X-ray Imager on SMILE**

**Code:** 19/33

**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:**

Solar Magnetosphere-Ionosphere Link Explorer (SMILE) is a joint mission between ESA and the Chinese Academy of Sciences, with a science goal of studying the dynamic interaction between the solar wind and the Earth's magnetosphere through simultaneous observations in the ultraviolet and low-energy X-ray regime. This project is an opportunity to join the Open University research team in developing and testing the imaging detectors for the Soft X-ray Imager (SXI) on SMILE.

The team at the Open University's world-leading research centre, the Centre for Electronic Imaging, is responsible for the characterisation and radiation damage studies of the sensors, modelling the radiation background and developing in-flight and ground-based software that help to optimise the mission's scientific return. The internship will include a mixture of programming and hands-on laboratory work in handling the detectors and camera system whilst helping to develop experimental tests to characterising the Engineering Model sensors for this international space-based observatory.

### **Applicant Specification:**

This internship would suit a keen and enthusiastic individual looking to gain experience in the field of space instrumentation, with a background in Physics, Engineering, Computer Science, or a related discipline.

**Minimum Requirements:**

Experience in Matlab programming and general laboratory equipment (vacuum systems, temperature controllers) would be desirable but similar or relatable experience and a desire to learn are equally valued.

**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 Friday 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.