18/02 : Enabling new EO technologies for air quality markers

Company: AVS UK Ltd

Supervisor: Alberto Garbayo

Location: Rutherford Appleton Lab, Harwell Campus, Oxfordshire

Company Description:
AVS develops bespoke solutions to Science and Technology markets including aeronautics and space. The team possesses expertise in engineering development throughout project lifecycles, from concept design, modelling and analysis to hardware manufacture, integration and tests. This enables the company to provide highly complex engineering tailored solutions that work in hazardous environments for both ground based and space applications.
AVS is currently developing a new catalogue of products for the Earth Observation market such as shutter mechanisms, scanning mechanisms... as well as UVSAT: A constellation of CubeSats that will monitor the air quality globally complementing current UV/VIS payloads (Sentinel) and will enhance new applications and services.

Project Description:
AVS is working in several developments for Earth Observation, including the first stepping stone of an air-quality service temporal resolution constellation of CubeSats that includes a new novel compact UV/VIS payload and on-board calibration system.

The successful candidate will continue the research and development on the UVSAT payload for EO air quality services globally and work on the development of the Payload that will include UV/VIS spectrometers, a shutter mechanism, a novel calibration system, beam splitter, electronics, etc.

They will study the state-of-the-art of the current technology available at AVS in order to understand the technology behind it; implement potential improvements under the technical description of the Payload; study the functionality, fabricability and design of the sub-components of the Payload. The successful applicant will participate in the strategy meetings under the Earth Observation development team, to discuss the potential opportunities and create business cases for individual items that can be exploited and utilised in other Spacecraft.

We wish to offer a 3-4 months placement in order to offer the candidate sufficient time to get a flavour of the work atmosphere in the office and understand the technology developments at AVS. At the end of the placement, AVS wants to offer a permanent position to work in the new developments for EO ongoing at AVS, subject to the agreement of both parties.

Applicant Specification:
Master´s degree in Physics, Space, Astronautics or Engineering.
Availability to work in the UK.

Preferred Additional Requirements:

- Studying for a PhD in Space topic
- Other courses will be an advantage.

Further details:
8 weeks minimum fixed term contract to be agreed with successful candidate but nominally with a start date on or before 7 March, 2018. Salary is £1,500 per calendar month.

Closing Date for Applications: 15th February, 2018

Applications will be through the online form attaching a CV, before the closing date. They will be checked for eligibility and forwarded to the employer.