

## **19/02 - Advanced Concepts Team Placement**

### **Thales Alenia Space in the UK Ltd**

***Please note:***

*Applicants must have the legal authorisation to reside and work in the UK in order to be considered for this placement*

*Priority consideration will be given to applicants that are towards the final stages of academic study or have recently completed their study.*

**Location**

Building 660, Bristol Business Park, Bristol BS16 1EJ

**Company Description**

Thales Alenia Space (TAS) has more than 40 years' experience in designing, integration, testing, operation and commissioning of innovative space systems. Using some of the world's most sophisticated technologies, we meet the needs of a variety of commercial, government, scientific and security customers. Our teams create the technology to monitor our oceans, help us better understand climate change and drive scientific progress. We also have developed key parts for the International Space Station and play a pivotal role in exploring the universe.

Thales Alenia Space in the UK (TASitUK), started in 2014, has over 160 employees between three sites in Bristol, Harwell and Belfast. In the UK, TASitUK specialises in early stage technology development, satellite propulsion, radiation hardened electronics, small satellite design and assembly.

**Project Description**

TASitUK's Advanced Concept Team carries out early stage work on scientific, commercial and defence space missions and technologies. During 2019 we will be carrying out a number of studies for the European Space Agency (ESA), including several on technologies for Mars sample return. In addition the ACT manages an ever changing portfolio of disruptive innovation projects where concepts are rapidly tested for technical and economic viability before being discarded or becoming official development products.

The intern will join the team and work on a wide breadth of space technologies and missions as they emerge. The concepts that the student will be actively working will not be known until they start but can be guaranteed to be exciting and on the cutting edge of space technology, potential examples include:

- Very low Earth orbit small satellite design;

- Robotic arm operations for Mars sample handling;
- Defining sub-systems for future ESA missions;

The length of the placement is 12 months.

**Student Specification:**

Due to the wide range of potential concepts the student is required to have an open mind and be highly adaptable. A knowledge of Space technology and systems is helpful but not mandatory.

Desirable traits include:

- Ability to autonomously research a field of science or technology that is unknown to the student and supervisor in order to understand the key challenges and opportunities;
- A desire to learn a diverse range of modelling skills as required such as optics, thermal management, orbital mechanics, etc;
- An appreciation of business in engineering;
- Ability and willingness to give presentations in meetings / conferences;
- Comfortable at both working alone and working in small teams of up to five;
- Ability to write & review coherent and structured reports;
- Experience in project working and building prototypes;
- Good skills with MATLAB and Excel;
- Familiarity with CAD software and robotics operation software.

The work will be aiming to enhance the knowledge and capability of the Advanced Concepts Team for future mission requirements. Therefore, the most important requirement is a desire, willingness and capacity to learn.

Suggested courses include Aerospace, Electronic Engineering, Mechanical Engineering, Robotics, Physics.

**Closing Date for Applications: Thursday 14<sup>th</sup> February 2014**

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