

## 19/05 - Mission & AOCS 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 R27, Fermi Ave, OX11 0FA Didcot

**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. TASitUK specialises in early stage technology development, satellite propulsion, radiation hardened electronics, small satellite design and assembly.

**Project Description**

TASitUK's Mission and AOCS (Attitude and Orbit Control Systems) Team is in working on two kind of activities:

Studies and advanced concepts

- Definition of spacecraft mission requirements (spacecraft performance, orbit selection, orbit insertion and maintenance strategies, operational constraints, requirements for AOCS and propulsion subsystems...)
- Concept and advanced studies for spacecraft and subsystems design (AOCS early designs, new AOCS concepts, use of new equipment or technologies...)
- Optimisation of tools and processes for studies and systems development

Systems development

- Design definition through trade-off and simulations (Spacecraft Phase B)
- Design implementation on associated tools (Spacecraft Phase C)

- Validation of system requirements and performance assessment through simulations (Spacecraft Phase D)

TASitUK's Mission & AOCS Team is working both on scientific and commercial projects. The intern will join the team and work on a wide breadth of space technologies and missions as they emerge, both for studies and systems development.

The length of the placement is 12 months.

**Student Specification:**

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 tackle a wide range of technologies and concepts.
- A desire to learn a diverse range of modelling skills as required such space dynamics, mechanical systems, propulsion systems, control & command, etc;
- An appreciation of business in engineering;
- Ability and willingness to give presentations in meetings;
- Comfortable at both working alone and working in teams of up to ten;
- Ability to write & review coherent and structured reports;
- Good skills with MATLAB or other development & modeling tools;

Applicants should be working towards (or should have attained) a degree-level qualification in a subject related to the nature of the placement (for example; Aerospace, Control, Mechatronics, Robotics, Physics).

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

**Closing Date for Applications: Thursday 14<sup>th</sup> February 2019**

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