WUSAT Newsletter

December 2019 WUSAT-3 TEAM 5

University of Warwick Satellite Engineering Team 2019-20

WUSAT-3 Team Endure Tough Week at ESA Launch Event !

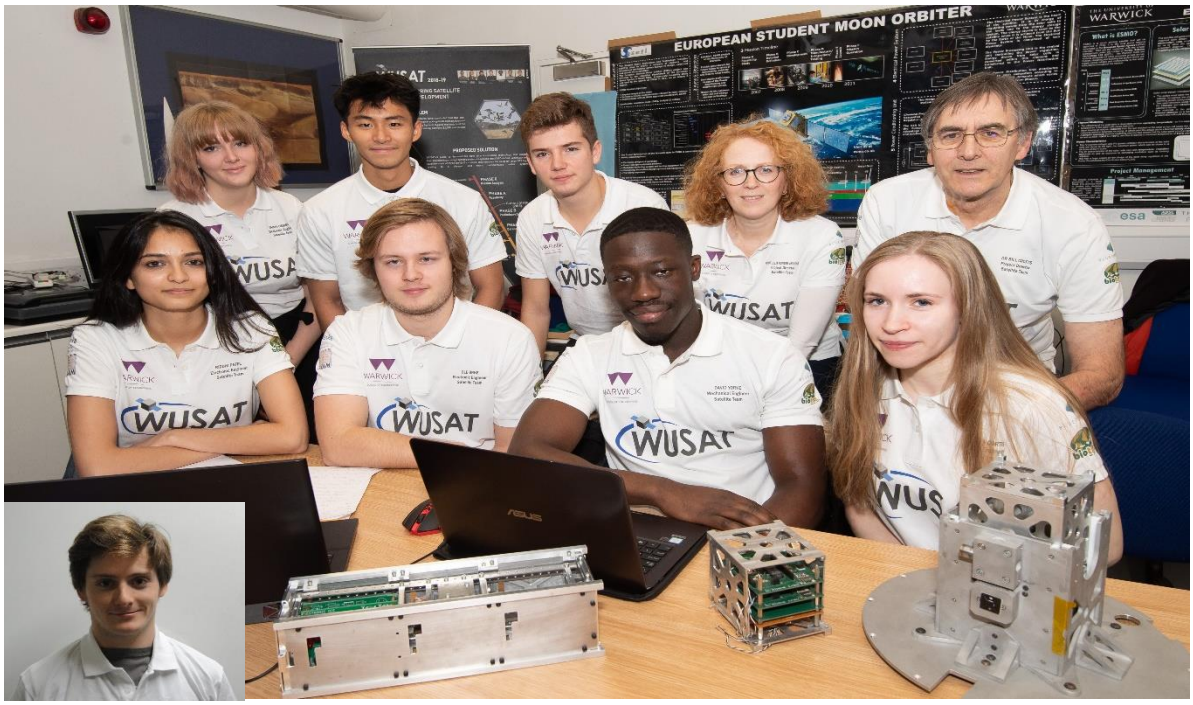
The WUSAT Satellite Engineering Team returned late Friday night from a gruelling week at the European Space Agency's Space Technology Research Centre (ESTEC) in the Netherlands.

We worked 8.30 to 6.30, Mon to Fri, with individual ESA experts on a range of topics concerning the design, build, test, launch and operation of a satellite. Including,

Assembly, Integration & Verification,
Product Assurance,
Electrical Power Supply Design,
On-Board Data Handling,
Software Development,
Attitude Determination & Control,
Telemetery & Telecommand,
Spacecraft Operations,
Environmental Testing,
Radiation Effects

The team also had to present the WUSAT-3 mission and technical development to the Evaluation Panel of ESA experts. We were the only UK Satellite in contention, and were one of seven European satellites under consideration. The six competitor satellite teams were from Finland, Greece, Austria, Sweden, Germany and Spain. The standard was very high, but the WUSAT team performed extremely well and we felt that our overall package of mission concept (wildlife tracking), technical sophistication and novelty, and our strong programmatic approach based on solid System Engineering principles would have made a strong impression on the panel.

Dr Bill Crofts & Prof Julia Hunter-Anderson, Co-Directors of the WUSAT Programme, www.warwick.ac.uk/cubesat



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The 2019-20 WUSAT Team:
Back L-R: Emma, Jm, Will, Julia, Bill Front L-R: Riddhi, Ole, David, Isabella, (Inset) Sam

We now wait for ESA to request further clarification to help them complete their evaluation, then we expect to hear if we were successful early in the New Year.
A big thank you to all of the team for giving up the first week of their Christmas holiday to attend this. It was an amazing experience for all of us, and it's worth remembering that they have only really been on the WUSAT-3 project for a couple of months or so! If we are selected, this will be an incredible achievement for all concerned!

Isabella Curtis (WUSAT) in ESA Project Team

WUSAT Systems Engineer, **Isabella Curtis**, recently took part in a European Space Agency Concurrent Engineering Challenge based at ESA Academy's Training and Learning Facility, ESEC-Galaxia, Belgium.
The team she is pictured with here, includes university students from 14 different ESA States.
The team also linked to three other groups, participating remotely in three European universities: Cranfield University (U.K.), Politecnico di Milano (Italy), and KTH Royal Institute of Technology (Sweden). Each site is home to its own Concurrent Engineering Facility (CEF). Their combined Concurrent Engineering challenge was to design a mission to explore Saturn's icy moon Enceladus. The opportunity to work in this sort of environment, on this sort of mission, with the facilities available through the ESA programme, has given Isabella a wonderful experience that will be a major feature of her CV when she graduates. We will continue to place WUSAT students on these programmes wherever we can.