



Midlands Innovation CubeSat Newsletter



Nov 2021

WUSAT-3

Warwick – Aston – Birmingham – Cranfield – Keele – Leicester – Loughborough – Nottingham

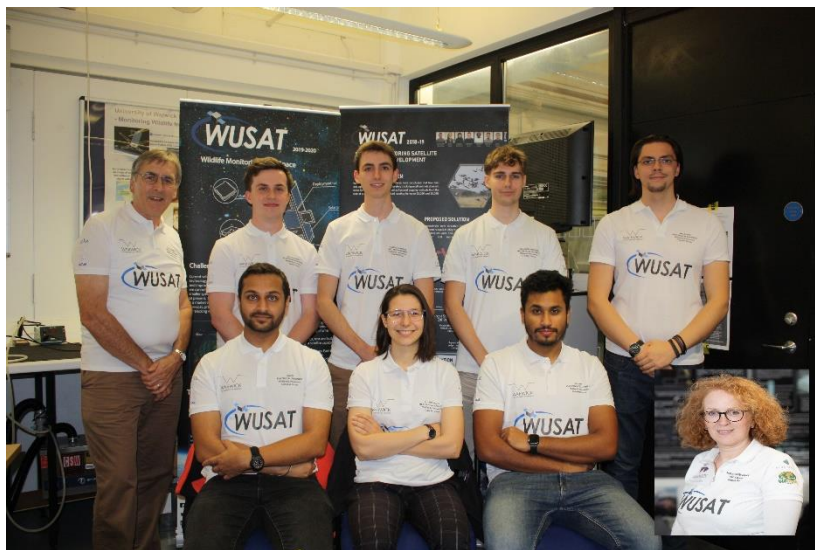
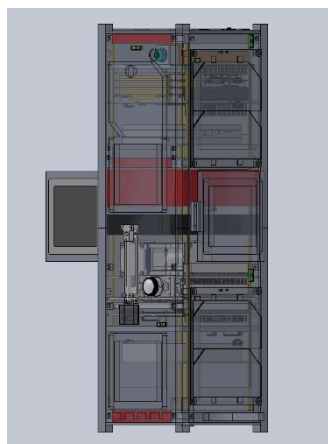
WUSAT-3 Submission to ESA Launch Programme Begins!



Following a recent call from the European Space Agency, WUSAT is now preparing a submission for WUSAT-3 to be considered for ESA's FYS4 Launch programme (Deadline 6th Feb 2022).

Although our progress has been badly affected by Covid-19 pandemic restrictions, the current team are determined to physically implement all of the design work that can be completed in order to be ready for an FYS4 Selection Workshop early next year.

The 2021-22 team (right) are concentrating on building and preliminary testing of the satellite internal sub-systems, and also building the chassis and its mechanisms.



Dr Bill Crofts, Alex Bolland, Mattias Langer, Eduardo Hopkins, Myles Ing,

Jai Bassi, Chiara Biquet, Tahrir Uddin, Prof Julia Hunter-Anderson

Midlands Innovation CubeSat Group (MICG)

Potential input to the overall team effort continues to be enhanced by MICG members from our partner universities. This will not only give their students opportunities to be involved with a satellite development/launch, but their inclusion in our enhanced team will also significantly improve the strength of our FYS4 submission to ESA. Our MICG team for WUSAT-3 now includes,

Mattias Langer – WUSAT – Systems Engineering

Chiara Biquet, Myles Ing, Eduardo Hopkins, Jai Bassi – WUSAT – Chassis / Mechanism Manufacture

Tahrim Uddin, Alex Bolland – WUSAT – Subsystem prototype/testing

Partner members will include project students provided by,

Prof. Gary Critchlow – Loughborough University – Experimental Ceramic coating

Prof. William Whittow – Loughborough University – Satellite RF Communications

Dr. Leonard Felicetti – Cranfield University – Attitude Determination Control System & Integration of ADCS

Dr. Stephen Hobbs – Cranfield University – Ground Station support

Dr. Chantal Cappelletti – University of Nottingham – Assembly Integration Verification Testing support and Ground Station support (University of Brasilia)

We will continue to develop our Midlands Innovation CubeSat Group team and hope that all partners will enjoy the shared experience of a satellite launch to assist wildlife conservation efforts!

Summary of WUSAT-3 Mission!



WUSAT-3 is a 3-Unit CubeSat designed for launch into Low Earth Orbit (approx. 400km altitude) either via deployment from the International Space Station (ISS) or direct launch into orbital position.

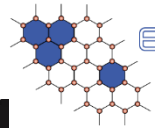
It will test a novel signal direction-finding instrument, devised by **Roke Manor Research Ltd**, as a potential method of tracking wildlife with radio frequency tags that would be much smaller and lighter than current tags. This could increase the range of species (especially smaller birds) that can be monitored from Space.

Our partner companies/organisations

AIRBUS



HARWIN



ESATAN-TMS
thermal modelling suite

Roke

Part of the
Chemring Group

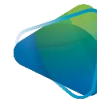


Lotek

advancing wildlife science



**OPEN
COSMOS**



BLUE-SPACE

To all of our partners, team members, University of Warwick staff, WUSAT alumni, Midlands Innovation Space Group and 'WUSAT Watchers' - our very best wishes for Christmas and the New Year!

Bill & Julia

