Fully Funded PhD Studentship

‘Advanced methodologies for airborne radiometric surveying of nuclear sites.’

Institution: University of Bristol  
Supervisor(s): Professor Tom Scott, Dr Peter Martin  
Sponsor(s): EPSRC and NATO

In the event of a nuclear incident it is highly desirable to get precise positional information on radiation spread, magnitude and type as quickly as possible. The use of UAV (drones) to provide this response capability is considered preferable over manned aircraft but yet to become a fully mature technology.

This exciting hands-on experimental PhD, also involving advanced data processing, programming and modelling will seek to optimise the detection systems, data collection methodologies and processing algorithms to enhance the accuracy and sensitivity of UAV systems for detecting and localising both anthropogenic and natural radiation sources.

The project will utilise the extensive resources of the National Nuclear User Facility for Hot Robotics at the 245 acre Fenswood Farm facility outside Bristol. The student will utilise both multirotor and fixed wing VTOL systems to conduct their research, with annual deployment opportunities in the Chornobyl exclusion zone and other ‘interest’ countries.