



Fully-funded PhD Studentship: *Advanced antennas for digital beamforming synthetic aperture radars onboard small satellites*

Institution: University of Kent, UK

School: School of Engineering and Digital Arts

PhD Supervisor: Professor Steven Gao (s.gao@kent.ac.uk)

Application Deadline: 24 March, 2014

Funding Availability: This is a fully funded PhD studentship. Applications for this project are welcome from suitably qualified candidates worldwide. Successful candidate will receive a bursary of £13,590 per annum for 3 years.

Applications are invited for a fully-funded PhD studentship in the School of Engineering and Digital Arts, University of Kent, Canterbury, UK. This is a 3-year project, funded by the European Commission (EC) Space Programme, and the researcher is to work under the supervision of Professor Steven Gao. The PhD student is to start in April 2014 or soon afterwards. A post-doctoral researcher will work together with the PhD student.

The University of Kent is well-known internationally, for research work in frequency-selective surfaces (FSS), space antennas, smart antennas, phased arrays, RF/microwave/millimetre-wave technologies and wireless communications. The research is conducted as part of the EC project "DIFFERENT" in collaboration with several leading academic and industrial partners across the Europe. The aim of this project is to develop the world's first digital beamforming space-borne synthetic aperture radars (DBF SAR) which will be put onboard small satellites in low earth orbits. The DBF SAR will be very useful for observing the earth from the space. The main roles of the PhD students are to investigate the design, modelling and development of novel multi-band multi-polarization array antennas for DBF SAR. The University of Kent has excellent antenna and RF/microwave/millimetre-wave measurement facilities including various anechoic, near-field and plane-wave chambers, the largest of which operates between 400MHz and 110GHz with a totally new measurement system including a dedicated vector network analyzer. The antennas laboratories also contain broadband network analysers operating from 10MHz to 110GHz. It has a well-equipped mechanical workshop with newly installed computer controlled machinery, which is for the fabrication of antennas and RF/microwave circuits. . The PhD student will work together with the post-doctoral researcher at Kent, as well as researchers from several other leading European companies and institutes.

The ideal candidate has a Master degree in engineering or physics with experience in antennas, or electromagnetics or RF/microwave engineering. Working experience or research experience in antennas or RF engineering will be a plus. For overseas applicants, the minimum English requirement is that he/she needs to have IELTS scores 6.5 overall including 6.0 in both reading and writing.

Informal enquiries regarding this PhD opportunity can be addressed to Professor Steven Gao (s.gao@kent.ac.uk). Applications should be submitted by **24 March, 2014**.

Application: Apply online at https://adm.kent.ac.uk/external/admissions/pg_application.php and select the following:

Programme – PhD in Electronic Engineering

School – School of Engineering and Digital Arts

Research topic - Advanced antennas for digital beamforming synthetic aperture radars onboard small satellites