Applications are invited for a PhD studentship on control of heterogeneous teams of robotic vehicles within the Department of Aeronautics, Imperial College London.

An upcoming theme in the area of robotics is the deployment of heterogeneous teams of vehicles or systems for performing tasks which require diverse sensory and actuation capabilities. Applications of such technology include the monitoring of critical infrastructure, intelligent search and rescue operations, and expert recommender systems for constrained groups of emergency responders.

The goal of the PhD studentship is to develop rigorously verified algorithms for distributed task allocation among heterogeneous teams of robots, and model-based control strategies for robotic vehicles and systems. The student will be expected to demonstrate the algorithms experimentally to the extent possible, including on custom-built aerial robots. The student will be expected to acquire and demonstrate a wide range of theoretical, analytical and experimental skills covering the areas of control systems, multi-agent systems theory, flight dynamics, and robotic motion planning.

The project will directly benefit from outstanding facilities, including a Vicon-equipped flight arena, 13 wind/water tunnels and the rapid prototyping and composite fabrication centre at the Aeronautics Department. Applicants should have a MSc/MEng (or equivalent) in Engineering, Physics or Applied Mathematics. Preference may be given to applicants with a strong theoretical background in nonlinear control, estimation, game theory or stochastic systems, and with prior experience in flight vehicle development, mechatronics integration and testing. The successful candidate will work closely with, and co-supervise, MSc students.

"Funding is available for UK citizens and EU citizens who have resided in the UK for the past three years. The studentship is for 3.5 years starting as soon as possible and will provide full coverage of tuition fees and an annual tax-free stipend of approximately £16,296."

Applications will be assessed as received and all applicants should follow the standard College application procedure (http://www3.imperial.ac.uk/pgprospectus/howtoapply).

Informal enquiries and requests for additional information for this post can be made to: Dr Aditya A. Paranjape via email: adityaparanjape@live.com

To apply, please go to http://www.imperial.ac.uk/study/pg/apply/how-to-apply/

Any queries regarding the application process should be directed to Ms. Lisa Kelly by email at l.kelly@imperial.ac.uk.

Closing date for applications: Open until filled
Start Date: As soon as possible

Committed to equality and valuing diversity. We are also an Athena Bronze SWAN Award winner, a Stonewall Diversity Champion and a Two Ticks Employer.