3 Year PhD Studentship sponsored by Lloyds Register Foundation

**Proposed start date:** as soon as possible.

**Department:** Engineering

**Supervisor:** Prof. Haitao Ye [hy122@leicester.ac.uk](mailto:hy122@leicester.ac.uk)

**Eligibility:** Available to UK/EU and international applicants*

**Project Title:** Diamond based photonic devices for harsh environments

**Project Description:**

Applications are invited for a three-year Postgraduate studentship, supported by the Lloyds Registrar Foundation, to be undertaken within the Department of Engineering at University of Leicester under the supervision of Prof. Haitao Ye. The successful applicant will join the Mechanics of Materials Research Group working on diamond coatings and device technology.

Diamond based materials have gained significant attention in the photonics research community due to exceptional physical, chemical, optical properties, and stable color centers (N-V, Si-V). Its high refractive index, transparency over wide wavelength range and large bandgap make it ideal for realization of high performance photonics devices. In addition, diamond offers the best mechanical hardness, Young’s modulus, the highest thermal conductivity, and the highest electron and hole mobility among the 3rd-generation wide-bandgap semiconductors. This project aims to combines the excellent mechanical, thermal, electronic and optical properties of diamond towards a novel type of diamond-plasmon hybrid device.

**Funding details:**

The funding offers a stipend and a UK/EU fee waiver for 3 years.*

*International applicants must be able to fund the difference between UK/EU and International fees for the full 3 years of study if they wish to be considered.

**Entry requirements:**

The successful applicant should have a first class or upper second class UK honours degree or overseas equivalent qualification in materials science, chemistry, physics or engineering. Preferred skill requirements include knowledge/experience of thin film deposition, semiconductor physics, devices fabrication & characterisation, photolithography and/or electron beam lithography.
Overseas applicants will need to have met our English language requirements when applying. IELTS 6.0 or equivalent.

**How to apply:**

You should submit your application using our online application system.

- Apply for Engineering Research
- In the funding section of the application please indicate you wish to be considered for Ye-Lloyds Project.
- In the proposal section please provide the name of the supervisor and project title.
- Include a personal statement explaining why you want to be considered for this project.

**Project / Funding Enquiries:** Prof. Haitao Ye  hy122@leicester.ac.uk

Application enquiries to engineeringpgr@le.ac.uk

Closing date for applications  31 May 2018