EPSRC Centre for Doctoral Training in Applied Photonics

Research Project Proposal Form

The EPSRC CDT in Applied Photonics is a consortium of academic and industrial researchers with the objective of supporting industrially-informed doctoral research projects related to photonics and optics. Any company with a research activity in the UK is eligible to participate.

To submit a proposal for an EngD or PhD project within the EPSRC Centre for Doctoral Training in Applied Photonics, please complete all sections of the form and return the completed form to [cdtphotonics@hw.ac.uk](mailto:cdtphotonics@hw.ac.uk).

* Information about the Centre can be found at [CDT in Applied Photonics - Heriot-Watt University](https://cdtphotonics.hw.ac.uk/)
* Annual Reports are available at [Publications - CDT in Applied Photonics](https://cdtphotonics.hw.ac.uk/publications/)
* Industrial Sponsor information is available at [Propose a Project - CDT in Applied Photonics](https://cdtphotonics.hw.ac.uk/propose-a-project/)

If you have any questions about completing the form, please contact [CDTphotonics@hw.ac.uk](mailto:CDTphotonics@hw.ac.uk).

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## Project Information

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| **Project Title** |
| *Project title* |

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| **Industrial Sponsor** | |
| Name of Company |  |
| Company Website Address |  |

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| **Project Abstract (approximately 200 words and suitable for public release)** |
| *Please provide a project abstract suitable for public release (in CDT adverts for the position on our website and on FindAPhD).*  *Note that this text will be reviewed for good practice in EDI and will also be reviewed by a student panel. Any significant suggested revisions will be returned to the supervisor team for approval.* |
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| **Type of Research Project** | | | | | | |
| *EngD and PhD students spend the first 9 months completing taught courses at the start of the programme and the total duration of the programme is 48 months.*  *EngD students are normally embedded within the industrial sponsor for 39 months, after they complete the taught courses at the start of the programme. PhD students are based in the University of the academic supervisor for 39 months after the taught courses.*  *For EngD projects, UK visa regulations limit non-UK students without Settled Status to spending a maximum of 24 months in the sponsor company. If the EngD project is suitable for hybrid working including 24 months in the company and 15 months spent locally at the University, choose both the 24 month option and the 39 month options below*.  *If the research project has any constraints on the nationality of potential students, please contact CDTphotonics@hw.ac.uk* | | | | | | |
| **Type of Research Project**  **(please tick relevant box)** | **EngD (39 months)**  (UK students only) |  | **EngD (24 months)** |  | **PhD** |  |

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| **Description of the Research Project** | | | |
| *Please select a theme(s).* | | | |
| Photonic Sensing and Imaging |  | Computational Techniques for Photonic Sensing and Metrology |  |
| Optical Metrology Techniques and Instrumentation |  | Device Technologies for Photonic Imaging and Sensing |  |

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| **Project Fit with the CDT (for CDT internal use)** |
| *All projects co-funded by the CDT must have sufficient depth and scope to support a doctoral thesis. In making this assessment we therefore require all questions below to be addressed explicitly.* |
| (a) How does the project fit with the *Photonic Sensing and Metrology* scope of Centre?  (b) What are the key academic and industrial research questions the project aims to answer?  (c) Where is the novelty of the project, and in what industrial/academic context?  (d) What is the methodology to be used, and what will the student be doing?  (e) What makes this a doctoral thesis project rather than a shorter piece of work? |

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| **Publication of Research Results** |
| *Please indicate your expectations around the publication of research results arising from the project.* |
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| **Any Other Information** |
| *For example, you may include here details of discussions with academic contacts relevant to the project. Generally, this information will not be made public to applicants, so any information necessary for recruitment should be included in the Project Abstract and Person Specification.* |
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## Supervisors

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| **Proposed Industrial Supervisor** | |
| Name and Title of Industrial Supervisor |  |
| Contact Telephone Number |  |
| Contact Email Address |  |

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| **Proposed Academic Supervisor** | |
| *If no academic supervisor is proposed the CDT will liaise with the company to identify a suitable person.* | |
| Name and Title of Academic Supervisor |  |
| Contact Telephone Number |  |
| Contact Email Address |  |
| University | Choose an item. |

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| **Equality, Diversity, and Inclusivity (EDI) Training and Supervisor Training** | |
| *As the CDT in Applied Photonics is funded by EPSRC, EDI training is required. Please note that projects will only be approved, and interviews can only take place after the proposed supervisor has received EDI training.* *If you have not received EDI Training, the CDT can provide a one-hour online training course. The CDT will return forms for revision if any points are not addressed explicitly below.*  *Supervisor Training should also be completed by supervisors of CDT projects before the start of the research phase of the project. The CDT provides this training which lasts half a day.* | |
| **EDI Training - Industrial Supervisor**  Has the proposed industrial supervisor named above received EDI training? | Choose an item. |
| **EDI Training - Academic Supervisor**  Has the proposed academic supervisor named above received EDI training? | Choose an item. |
| **Supervisor Training - Industrial Supervisor**  Has the proposed industrial supervisor named above received CDT in Applied Photonics Supervisor Training? | Choose an item. |
| **Supervisor Training - Academic Supervisor**  Has the proposed academic supervisor received CDT in Applied Photonics Supervisor Training? | Choose an item. |

## Doctoral Student

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| **Proposed Doctoral Student (if already known)** | |
| *Where no candidate is proposed the CDT will advertise the studentship using details provided below.* | |
| Name of Proposed Candidate |  |
| Contact Telephone Number |  |
| Contact Email Address |  |

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| **Person Specification** |
| *The CDT will refer to this person specification when pre-selecting candidates for interview. These will form the basis of the interview and are a formal part of the selection process. Please include here any information that will assist in this process, such as first-degree background or balance between experimental/theoretical aptitude. Please bear in mind that all students will normally receive 9 months of relevant taught course training before beginning their research project.*  *The interview panel usually consists of the CDT Centre Director (or Deputy Director), the CDT Training Manager, the Academic Supervisor, and the Industrial Supervisor.*  ***Please note research has shown that women are significantly less likely to apply for a position than men if they consider they do not meet all the essential criteria.*** |
| **CDT Essential Criteria** (please do not alter)   * A Masters level degree (MEng, MPhys, MSc) at 2.1 or equivalent. * Desire to work collegiately, be involved in outreach, undertake taught and professional skills study. |
| **Project Essential Criteria** |
| **Project Desirable Criteria** |

## About the Company/University Environment

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| **Working Environment** | |
| *Please describe the environment the student will be working in and any additional information about the benefits of conducting research with you, which we can use in our advertising, e.g., is the project lab based, desk based or a combination? How much time will be spent in each environment? Clean room based? Computational? Where will the student be accommodated - shared office?* | |
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| If an EngD project, in which location will the student be based? | Choose an item. |

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| **Overseas placement / working and duty of care** |
| *Is a significant amount of work anticipated outside the UK? (i.e. ignoring conference participation, or short <1 week academic/industrial visits). If so, please provide details and how risk assessment will be carried out before travelling.* |
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| **Flexible Working** |
| *We are committed to inclusion and widening access to the photonics sector. Please indicate if you are happy to have informal discussions with candidates about flexible research options, or if you have any options in place currently at your company that you would like to make candidates aware of in your advert, e.g., flexible working hours; working from home; part-time working* |
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| **Please provide a link to the company Equality, Diversity & Inclusion policy.** |
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## Responsible & Trusted Research

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| **Data Storage, Data Security, GDPR** |
| *Will data be stored under (a) host university regulations or (b) company policy and procedures.*  **If (b) please comment on data security processes/policy.**  *Comment on any data sharing envisaged with third parties outside the university and the company.* |
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| **Environmental Impact and Sustainability** |
| *We encourage efforts to reduce the environmental impact of our research projects and support efforts to improve sustainability. Where available, please provide a link to / details of any company environmental sustainability policy.*  *Reducing the impact of travel plays a part in this. Please highlight any relevant company travel policy, or comment on the ability to choose sustainable travel alternatives.* |
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| **Ethical Approval** | |
| *Will ethical approval be required for any part of this project?*  *This could include (but not limited to) – Medical studies, Animal studies, Participant studies (where personal data is held).*  *Where ethical approval might be required, please indicate the intended approval process.* | Choose an item. |
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## Finance and Intellectual Property

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| **Finance and Intellectual Property** |

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| *The Industrial Sponsor financial commitment and IP arrangements for the project are as follows.*  *Each project will have a Studentship Agreement set up between the Industrial Sponsor and the University where the academic supervisor is based, with details discussed and negotiated with Industrial Sponsor.*  *The CDT covers the fees to the University, the minimum UKRI stipend payments to the student (excluding company employees), a £4K research travel fund (total) and taught-course/ professional skills training.* | | |
| Stipended EngD student | £55,000 | Foreground IP assigned to the Industrial Sponsor |
| Stipended PhD student | £22,000 | Foreground IP assigned to the University |
| Company Employee EngD *(student remains a company employee and continues to receive a salary)* | £38,000 | Foreground IP assigned to the Industrial Sponsor |

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| **Industrial Sponsor Contact for Contractual Paperwork** | |
| *A studentship Agreement will be set up between the University of the Academic Supervisor and the Sponsor Company.* | |
| Name of Industrial Supervisor Commercial Contact |  |
| Contact Telephone Number |  |
| Contact Email Address |  |

## CDT Coordinator Approval

**Academic supervisor to complete this section.**

If an academic supervisor has not yet been identified, this section should be left blank and will be completed after the academic supervisor has been identified.

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| **CDT Coordinator Approval** | |
| *Please confirm the local CDT coordinator in your institution has reviewed* ***and approved*** *this proposal prior to submitting to the CDT for approval.* | |
| **Name and Title of local CDT Coordinator** | Choose an item. |
| **Local CDT coordinator approval**  Has this proposal been approved by your local CDT coordinator for approval prior to submitting to the CDT office? | Choose an item. |
| **Responsible & Trusted Research**  Has this proposal been subject to any local review process?  If YES, then summarise outcome, and provide additional documents/references as appropriate.  If NO, please add comment to justify this. |  |
| **Ethical Approval**  If required, detail the agreed approval process. |  |