



JOB DESCRIPTION AND PERSON SPECIFICATION

College: College of Engineering, Mathematics and Physical Sciences

Post: Product Development Engineer (KTP Associate)

Reference No: P41751

Reporting To: Academic and Industrial Supervisors

This KTP programme is a partnership between the University of Exeter (hereafter known as "the University") and Graphic Plc (hereafter known as "the company"). You will be employed by the University of Exeter, but will spend the majority of your time working on this project at the company premises in Criditon, Devon.

JOB DESCRIPTION

The Post

The successful candidate will work with the Technical Team at Graphic Plc. S/he will also work with the Electromagnetic Materials Team at the University of Exeter, College of Engineering, Mathematics and Physical Sciences; specifically with the Arkiris project team delivering a EPSRC funded Knowledge Transfer Account. The project aims to develop the capability to embed active components and other technologies within the structure of Printed Circuit Boards (PCBs).

To assist with this project we are looking for a candidate with a BSc/BEng/Masters (MEng or MSc) or PhD in Physics or Engineering - with knowledge and experience in manufacturing, applied research and/or product development, and electrical or RF engineering.

Main duties and accountabilities:

The successful post-holder will be responsible, in conjunction with their Industry and Academic Supervisors, for driving forward the development of this new product within the company.

The Arkiris project is seeking to exploit key IP in this technical area and are already investigating applications in RFID and anti-counterfeiting as well as engaging with potential customers and suppliers in these market areas. The Associate will have access to Vector Network Analysis and full suite of microwave test facilities and numerical modelling software for predicting the electromagnetic response of test structures. The post-holder, through a supported environment, will help to achieve the following:

1. Review of PCB market and competitors and Graphic's internal processes.
2. RFID technology and impact on business operations.
3. Putting together Project Delivery Plan, looking at the business case for the adoption of RFID technology.
4. Investigate chip durability in standard PCB manufacture
5. Investigate the effect of the embedded component PCB function
6. Investigate RF and DC component connections
7. Development of a Proof of Concept demonstrator
8. Prototype development
9. Undertake a small scale trial with the Graphic facility
10. Confirm the Business Impact cases for internal and external knowledge transfer.
11. Perform an initial review of other components that could be considered for embedded technology.

Resources controlled

The successful applicant will be responsible for ensuring that the Equipment and Consumables, Associate Development and Travel and Subsistence elements of the budget are used efficiently and responsibly.

S/he will be expected to make best use of the resources available at the University and the company to assist in the project. S/he will also be encouraged to make best use of the resources provided to all KTP Associates e.g. training, support.

Decision Making

As KTP is a partnership between a University and a company, the post-holder will report to an Academic and Industrial Supervisor. S/he will be expected to work to tight deadlines within a pre-specified 24 month work programme.

S/he will be expected to report on a monthly basis to both the industrial and academic supervisors and decisions concerning the Programme will be taken in consultation with all parties. S/he will also be expected to make 4-monthly presentations to the Local Management Committee, which is responsible for seeing that the programme objectives are met and that the Company, the University and the Associate all gain the expected benefits. Key decisions regarding expenditure and overall direction of the programme are taken jointly. However, it will be expected that the Associate takes the lead in providing recommendations on which to base these decisions.

Planning

The post-holder will be responsible for the timing of training to fit in with the workload constraints of the project, the company and the University.

Person Specification

The successful candidate will need to demonstrate:

Competency	Essential	Desirable
Attainments and qualifications	BSc/BEng/MSc/MEng in Physics or Engineering	PhD in Physics or Engineering
Prior experience	Applied research and product development, electrical or RF Engineering	More than 1 years experience of applied research and product development, electrical or RF Engineering
Skills and understanding	Good IT skills. Ability to motivate themselves. Possess excellent administration skills. Possess the ability to work effectively with all levels of staff. Excellent communications skills (both written and oral) with a flair for training and dissemination of new information Ability to prioritise and meet deadlines under pressure. Excellent time management, project management and organisational skills. Ability to think outside of the box to find proactive, innovative and relevant solutions to problems.	Good understanding of RF technology Understanding of PCB industry and technology Good understanding of electromagnetic materials Good knowledge of advanced modelling techniques
Other skills and attributes	Ability to communicate effectively with a diverse range of people, within the University as well as within Graphic Plc.	Evidence of published research work.

	Flexible and enthusiastic. Dedicated team member.	
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For further information please contact Dr Andy Treen, e-mail: A.Treen@exeter.ac.uk or telephone 01392 722247

To apply, please send your application form to Research & Knowledge Transfer, Innovation Centre, Rennes Drive, Exeter EX4 4RN (e-mail: ktp@exeter.ac.uk) quoting the job reference.

KTP (Knowledge Transfer Partnerships)

This challenging opportunity has arisen as a result of a 2 year KTP partnership between the University of Exeter and Graphic Plc. KTP offers a high calibre graduate the opportunity to accelerate their career by gaining experience at senior level in the organisation and receive a tailored development programme.

Further information on Knowledge Transfer Partnerships can be found on www.ktponline.org.uk.

KTPs offer graduates the opportunity to:

- earn a competitive salary
- accelerate your career
- manage a challenging project
- receive training totalling 10% of your time with a budget of £6,000
- study for a higher degree

The Company

Graphic Plc manufactures high-technology, high value, high reliability Printed Circuit Boards for use in aerospace, military and other applications. Turning over around £14 million they lead the UK in terms of high density interconnect (HDI) PCBs including flexi-rigid products that are manufactured to very high quality standards.

More information can be found at <http://www.graphic.plc.uk>