Knowledge Transfer Partnerships

Recruiting graduates for innovative companies for over 40 years!

KTP Associate Post Details	
Company partner / Lead Department	**Micross Components Ltd** / Department of Electrical and Electronic Engineering
Job Title	Graduate Electronics Design Engineer (KTP Associate, Micross Components Ltd)
Job Family	Research & Teaching
Responsible to	Company Supervisor, Knowledge Base Supervisor & Knowledge Base KTP Manager.
Responsible for (Staff)	n/a

Introduction

Knowledge Transfer Partnership (KTP) is a graduate recruitment scheme that helps a RECENT graduate (the KTP Associate), typically with 0 to 5 years of graduate work experience, transition from university life in to a career in industry with the aim of becoming a technical authority in the subject area, as well as a successful project manager.

A KTP is a collaborative project between a university (knowledge base) and a company (company partner) and part funded by Innovate UK. In this instance, the post holder will be employed by the University of Surrey but based at Micross Components in Norwich. The University academics are a key part of the knowledge transfer and, as such, contact with the academics will be maintained through regular meetings at the company and occasional visits to the University of Surrey by the KTP Associate.

We are looking for a recent graduate who has the drive to take responsibility for leading and delivering this strategic and innovative project with the support of leading academics and key company personnel. The post holder will be expected to fully utilise and develop their expertise, they will also manage a generous training budget which is provided specifically for further development of both technical and non-technical knowledge.

If you want to fast-track your career in industry while applying your technical know-how gained through academic study in a real-world context, then KTP could be for you. Further information is available at: www.ktponline.org.uk.

Job Purpose Statement

This KTP project is co-funded by Innovate UK, and Micross, and is offered on a fixed-term 24-month.

As a test development engineer, you will be responsible for developing technical solutions for the electrical screening and characterisation of microelectronics devices in the RF domain. This will require applying sound academic knowledge and principles in a real world environment and performing engineering assessments of what is realistically deliverable within a production environment. This technical challenge will require developing innovative electronic test methodologies by identifying issues and providing technical solutions that demand integrating hardware design, software development and applying signal processing techniques.

The successful candidate will be responsible for managing and driving this innovative KTP project and embedding new knowledge within both the organisation and the University of Surrey.

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Key Responsibilities

This document is not designed to be a list of all tasks undertaken but an outline record of the main responsibilities (5 to 8 maximum)

1. Lead and drive an innovative KTP project, bringing together University / Micross teams as one.
2. Assist Micross & the University of Surrey to collaborate effectively to develop technical solutions for the electrical screening and characterisation.
3. Apply scientific knowledge in microelectronics devices in the RF domain and Microwave circuits to the development of the test setups.
4. Develop test setups for calibration and measurement supporting frequencies up to 18GHz.
5. Simulation and Optimisation of said bands.
6. Produce high-quality outcomes with game-changing, real world impact.
7. Help grow Micross' production capability.
8. Embed new knowledge in Micross and the University of Surrey.

N.B. - The above list is not exhaustive.

Micross' core value is to empower people to always deliver on commitments while continuing to uphold exceptional quality in everything we do.

The KTP Associate is expected to:

- Follow the company partner's policies and working practices in ensuring that no breaches of information security result from their actions.
- Follow University/departmental policies and working practices in ensuring that no breaches of information security result from their actions.
- Ensure they are aware of and abide by all relevant University / Company / KTP Regulations and Policies relevant to the role.
- Undertake such other duties within the scope of the KTP as may be requested by your Supervisors or Line Manager.
- Ensure that confidentiality (in all forms) is maintained at all times.
- Work supportively with colleagues, operating in a collegiate manner at all times.
- Positively support equality of opportunity & equity of treatment to colleagues and/or students in accordance with the University of Surrey Policy.
- Work to achieve the aims of any Environmental Policy and promote awareness to colleagues and students.

Help maintain a safe working environment by:

- Attending training in Health and Safety requirements, as necessary, both on appointment and as changes in duties and techniques demand.
- Following local codes of safe working practices and the University of Surrey Health and Safety Policy.

Elements of the Role

This section outlines some of the key elements of the role, which allow this role to be evaluated within the University's structure. It provides an overview of what is expected from the post holder in the day-to-day operation of the role.

Planning and Organising

- The KTP project has been identified by the company and the University of Surrey.
- A detailed work plan has been created and will form the basis of this 24 month KTP project, where the Associate will develop expertise in using and developing newly purchased state of the art equipment for production line testing of RF chipsets.
- The Associate will take a key role in steering and shaping the project strategy.

Problem Solving and Decision Making

- Challenges: You will gain expert authority in developing innovative electronic test methodologies by identifying issues and providing technical solutions, embedding RF and other knowledge advancement directly into practice you will demonstrate analysing & trouble shooting skills employing fundamentals of electromagnetic theory in order to develop new solutions.
- The Associate should have the ability to work independently, as well as working collaboratively with the Company and the University teams, ensuring that all parties remain engaged with the KTP project.

- Both Company and University teams will collaborate around the KTP Associate role in order to support efforts, resolve issues, review progress and strategy of the KTP. You will be expected to be the catalyst to make this effective and success in this will substantially demonstrate your ability to champion innovation.

Continuous Improvement

- Whilst a work plan has been identified, the Associate is expected and encouraged to think out of the box in order to look for and agree other opportunities to add value to the collaboration not previously identified by either the University or Company.
- In our agile working environment, all are expected to review, analyse and adapt all practices, whether in testing, process and/or communications.

Accountability

- There will be regular opportunities for the Associate to present the progress of their KTP and achievements as well as the opportunity to produce publications and present at prestigious conferences/events.
- A KTP is a collaborative project, you will be expected to work with your team to manage and exceed the outcomes of your KTP project.
- As the Associate, you will report to both company and university staff.

Dimensions of the role

- As part of the KTP, the Associate will:
  - Plan, organise and record regular technical reviews.
  - Manage the project (to include forecasting & financial management).
  - Plan and organise quarterly progress meetings.
  - Schedule regular 1-to-1 meetings with stakeholders.

Supplementary Information

- Driving innovation that will provide solutions that help transform the company leading to mid-level employability.
- A dedicated and generous personal development training budget.
- Opportunity to take part in further professional training courses.
- Potential opportunity to publish research papers with the Academics.
- Access to comprehensive University of Surrey learning and development programmes.

Person Specification This section describes the sum total of knowledge, experience & competence required by the post holder that is necessary for standard acceptable performance in carrying out this role.

Qualifications and Professional Memberships		**Essential/ Desirable**
Minimum of MSc/MEng in Electrical/Electronic Engineering, Physics, or a related field.		E
First degree in Electronic Engineering or a closely related subject 2.1 or above.		D
English Language at minimum IELTS 7.0 (or a degree qualification studied in an English-speaking country e.g. USA or UK) or native English speaker.		E
Technical Competencies (Experience and Knowledge) This section contains the level of competency required to carry out the role (1 being low – 3 being high).	**Essential/ Desirable**	**Level 1-3**
Experience in RF/Microwave measurements and Microwave simulations; including RF/Microwave test	E	3

and measurement, and Microwave simulations or other related topics.		
Development experience of building own software systems & working with a team.	E	2
Experience of developing backend (command-line tools and/or services).	D	2
An interest and experience of working in an environment that is responsive to short-lead time demands of customers.	D	1
Good soft skills such as communications, presentations, time management, & teamwork.	E	2
Good understanding of computer networks, web services & distributed software systems.	D	2
Practical skills in circuit fabrication, soldering and assembly.	D	3
Special Requirements:		**Essential/ Desirable**
Good understanding of Software development, program writing and programming languages.		E
Ability to absorb knowledge and develop skills during the KTP		E
Competence in Standard Test Interface Language (STIL) and Automated Test Equipment (ATE) specific Application Programming Interfaces (API)		D
Core Competencies This section contains the level of competency required to carry out this role. (Please refer to the competency framework for clarification where needed). n/a (not applicable) should be placed, where the competency is not a requirement of the grade.		**Level 1-3**
Communication		3
Adaptability / Flexibility		2
Customer/Client service and support		2
Planning and Organising		2
Continuous Improvement		2
Problem Solving and Decision Making Skills		2
Managing and Developing Performance		2
Creative and Analytical Thinking		3
Influencing, Persuasion and Negotiation Skills		2
Strategic Thinking & Leadership		2

This Job Purpose reflects the core activities of the KTP post. As the partnership and the post holder develop, there will inevitably be some changes to the duties for which the post is responsible, and possibly to the emphasis of the post itself. The University expects that the post holder will recognise this and will adopt a flexible approach to work. This could include undertaking relevant training where necessary.

Should significant changes to the Job Purpose become necessary, the post holder will be consulted and the changes reflected in a revised Job Purpose.

Organisational / Departmental Information & Key Relationships

Background Information

The working hours, annual leave and holiday entitlement is that of Micross Components Limited.

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Micross' standard working week is 38.5 hours per week with core office hours being 07:45-16:45 Monday to Thursday and 07:45-12:30 on Friday. Flexible working hours may be considered.

Micross' annual leave entitlement is 20 working days per year with 1 extra holiday day a year gained for every year of service (up to 25 days) + Bank Holidays. The holiday year runs from the 1st January to 31st December each year.

Please also see **https://www.micross.com/** and **http://ktp.innovateuk.org/**

Relationships *This is not an exhaustive list of every relationship the post holder has, but is a brief description of those that play an important part in the post holder successfully carrying out the role.*

The post holder will work closely with both the Company Supervisor and Knowledge Base Academics and liaise with the University of Surrey's KTP Office. The post holder will also have the opportunity of networking with other KTP Associates and will be expected to meet regularly with professionals from Micross and their client base, who will provide feedback on the scope and progress of the project.

Internal

- KTP Office
- Micross KTP team
- Academic KTP team
- University of Surrey Students / Staff
- Micross Staff

External

- Innovate UK KTP Adviser
- Other KTP Associates
- Micross Clients

Special Requirements

The post holder must be prepared to work outside normal working hours when required and must be willing to undertake further studies.

The Associate will be required to travel to the University of Surrey, as well as travel between Micross sites and occasionally more widely.

Owing to the sensitivity of the work carried out by Micross Components Ltd where you will be based. To be eligible to apply you must be a UK / EU national with the right to work in the UK.