University of Essex

RECRUITMENT PACK

This document includes the following information:

- Job Description
- Person Specification
- Additional information

Making an application:

Please complete the short on-line application form, which includes some standard questions, and attach the following documents. (Shortlisting is undertaken by a panel after the closing date on the basis of information provided.)

    a. A covering letter - explaining why you are interested in this post, and giving examples to demonstrate how you meet the requirements of the job as outlined in the Person Specification.
    b. A curriculum vitae - giving full details of your qualifications and experience to date.

- Links to Guidance Notes and Frequently Asked Questions can be found on the Search Results page. These pages will open in a new window.

- **We recommend that you take a copy of this recruitment pack to help with your preparation.**

A commitment to sustaining an inclusive and diverse community is one of the University's Core Values and we are keen to address any imbalances in our workforce.

The University of Essex is proud to be part of the Disability Confident scheme and is committed to supporting diversity and equality, representative of our inclusive community. As part of our commitment to this scheme any candidate who has a disability and meets all the essential criteria for the role will be offered an interview. We also work in partnership with national disability organisation DisabledGo who provide detailed online access guides to many of our campus buildings and facilities which you may find useful.

Please note: We are only accepting on-line applications for this post. However, if you have a disability that makes it difficult for you to provide us with information in this way, please contact the Resourcing Team (01206 874588/873521/873461) for help.

Closing Date: 28 August 2018
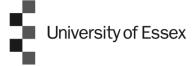
Interviews are planned for: 6 September 2018

JOB DESCRIPTION – Job ref REQ01562

Job Title:	Embedded Systems Engineer (KTP Associate)
Contract:	Full-time. Fixed term for 36 months. The position is fixed term due to being part of a government funded innovation programme, however there may be potential to continue in employment with the company partner following the completion of the KTP.
Hours:	37 hours per week (standard working week for host company)
Salary:	£30,000 - £33,500 per annum
Department/School/Section:	School of Computer Science and Electronic Engineering
Responsible to:	Prof Anthony Vickers, Head of School
Responsible to on a day to day basis:	Prof Dongbing Gu, Academic Supervisor, University of Essex and Dr Bharath Sudev, Host Company Supervisor
Location:	This post will be based at: Fläkt Woods Ltd Axial Way Colchester, Essex CO4 5ZD

Purpose of the Job:

The University of Essex in partnership with Fläkt Woods Ltd offers an exciting opportunity to a graduate to develop sensory hardware with software algorithms for Fläkt Woods product range to enable use of remote IoT data gathering platforms for conditional and environmental monitoring and control using machine learning.

Duties of the Post:

The main duties of the post will include:

- Develop a method of measuring in situ performance of a Fan (software/hardware)
- Demonstrate localised data capture and realise on local PC.
- Define and deploy IoT Infrastructure demonstrator.
- Maintain project schedule and budget.
- Organise regular technical project reviews with the academic team and Fläkt Woods.
- Generating market review and user requirements analysis reports.
- Design of new sensor technology system, including full documentation of the process.
- Development of IoT communication interfaces.
- Development of data management infrastructure.
- Development of AI algorithms for conditional monitoring.
- Prototyping and testing of new systems with key clients.
- Analyse and collate results for reports, presentations and publications.
- Embedding knowledge within the company, training staff and creating training manuals.
- Any other duties as may be assigned from time to time by the University of Essex Head of Department or their nominee.

These duties are a guide to the work that the post holder will initially be required to undertake. They may be changed from time to time to meet changing circumstances.

July 2018

PERSON SPECIFICATION

JOB TITLE: Embedded Systems Engineer (KTP Associate)	POST REF: REQ01562

Qualifications /Training

	Essential	Desirable
▪ BSc Computer Science / Embedded Systems or relevant discipline.	x	
▪ MSc IoT / Artificial Intelligence / Intelligent Systems or relevant discipline.		x

Experience/Knowledge

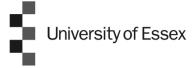|	Essential	Desirable
▪ Knowledge and experience of IoT applications.	x	
▪ Knowledge and experience of programming in C, C++, or Java.	x	
▪ Knowledge of embedded systems.	x	
▪ Knowledge of sensors and signal processing.	x	
▪ Knowledge of AI algorithms.	x	
▪ Knowledge of Digital Circuit design and use of Microcontrollers	x	
▪ Knowledge of analysis of data streams and Machine Learning		x

Skills/Abilities

	Essential	Desirable
▪ Effective communication skills to be able to work collaboratively in a small team.	x	
▪ Ability to work to deadlines.	x	
▪ Good command of written and spoken English.	x	
▪ Ability to work independently and as part of a team.	x	
▪ Proactive and committed to the project.	x	

Other

	Essential	Desirable
▪ An understanding of, and commitment to, equality and diversity	x	
▪ Can meet the requirements of UK 'right to work' legislation *	x	

*The University has a responsibility under the Asylum, Immigration and Nationality Act 2006 to ensure that all employees are eligible to work in the UK. Prior to commencing employment, the successful candidate will be asked to provide documentary evidence to this effect. The University may be able to offer Tier 2 Sponsorship for this role. For further information about UK immigration requirements please follow this link https://www.gov.uk/government/organisations/uk-visas-and-immigration

Working at the University of Essex

The University of Essex is proud to be:

A leading academic institution with an international reputation
for the quality of its research and teaching and
an international community that is committed to equality and diversity.

Knowledge Transfer Partnerships (KTP)

A Knowledge Transfer Partnership (KTP) is a three-way project between a company, a university and a graduate (known as an Associate), which enables the transfer of knowledge, technology and skills to which the company currently has no access. Supported by the university, KTP Associates manage strategic projects within the company.

A KTP can help graduates to enhance their career prospects by providing them with an opportunity to manage a challenging project, which allows them to use their degree, and is central to an organisation's strategic development and long term growth.

Whilst the Associate leads the KTP project, they are supported by experienced staff from the company and university. They are also assigned a KTP Adviser, who supports them in maintaining good working relationships within the partnership and in planning their professional development in broad terms.

For more information, visit http://ktp.innovateuk.org.

Fläkt Woods Ltd

Fläkt Woods Ltd is a leading global supplier of Air-Technology based solutions for buildings, focussing on air comfort and fire safety. Their passion is to always propose superior solutions to their customers with the best energy efficient products based. Fläkt Woods Ltd is committed to producing environmentally friendly and economical products and to providing the highest level of expertise to their customers.

For more information, visit www.flaktwoods.co.uk

School of Computer Science and Electronic Engineering

The School of Computer Science and Electronic Engineering comprises 1,200 students from more than 75 countries, supported by 170 academic, research and support staff. The school is conducting world-leading research in areas such as evolutionary computation, brain-computer interfacing, intelligent inhabited environments and financial forecasting, and boasts the largest robotics research group of its kind in the UK.
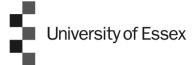
For more information, visit https://www1.essex.ac.uk/csee/about/default.aspx.

General Information

Informal enquiries may be made to the project Academic Supervisor, Prof Dongbing Gu (**email:** dgu@essex.ac.uk) or Robert Walker, KTP Manager (**tel:** 01206 874076 **email:** r.walker@essex.ac.uk). However, applications must be made online.

KTP is funded by a UK Government grant and this appointment carries no expectation of extension beyond the end of the fixed-term contract.

In principle, previous KTP Associates are not eligible to apply. There are some circumstances where a previous Associate can apply for a new KTP. Please check with your previous KTP Adviser for information.

Please note that the role holder will be based at Fläkt Woods located in Colchester, Essex, but may be expected to travel to the University of Essex Colchester Campus from time to time.

People Supporting Strategy

Please find a link to the People Supporting Strategy below:

https://www.essex.ac.uk/-/media/documents/directories/human-resources/people-supporting-strategy.pdf

Benefits

Our staff and students are members of the University for life. We believe a person's potential is not simply defined by grades or backgrounds, but by a willingness to question, to collaborate and to push at the edges of knowledge and their own potential.

As an employer we offer a range of benefits and a commitment to career development and equal opportunities in an environment that both reflects and creates a rich interaction of people, disciplines and ideas.

- Pension scheme
- Generous holiday entitlement
- Competitive salaries
- Training and development Family Friendly policies
- On campus childcare facilities, for more information visit www.wivenhoeparkdaynursery.co.uk
- Childcare vouchers
- Relocation package for qualifying staff
- Interest free season ticket loan
- Range of optional salary exchange tax benefits (pension, childcare and bicycle schemes)

No smoking policy
The University has a no smoking policy

Produced by:
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July 2018