



JOB DESCRIPTION

COMPANY: Protex (UK) Systems Limited

POST TITLE: KTP Associate (Software Engineer)

SALARY SCALE: £38,000 to £42,000 (dependent upon qualifications and experience)

RESPONSIBLE TO: KTP Supervisors

Professor Quan Bing Eric Li (Teesside University)

Hayden Moody (Company)

LOCATION: Protex (UK) Systems Limited

Wellington House, Wellington Court, Preston Farm Business Park, Stockton on Tees, TS18 3TA

JOB PURPOSE: To develop an AI-driven digital design capability that automates fire and gas detector placement, coverage validation, and cost estimation within complex industrial environments. This innovation will create efficiencies by reducing design time, improving accuracy, and enabling faster, more reliable delivery of safety-critical detection systems across energy and industrial sectors.

DUTIES AND RESPONSIBILITIES:

1. Project manage the delivery of the Knowledge Transfer Partnership work plan (with extensive support from both the company and academic supervisors)
2. Lead on the key stages of the KTP, including:
 - a. Establish strategic alignment, business model familiarisation, situational awareness and Gantt chart/risk register updates
 - b. Establish technology foundation and methodology familiarisation
 - c. Core software engine (prototype) development for detector optimisation and coverage simulation
 - d. Multi-objective optimisation, AI integration and cost-aware design development
 - e. High-Performance simulation, system integration, explainable AI and user interface development
 - f. Deliver system scale-up, industrial validation and operational embedding
 - g. Deliver software productisation, commercialisation and sustainable operation
3. Co-author and present academic papers to relevant journals/conferences.
4. Collaborate with University supervisors to translate research into commercial outcomes.
5. Contribute to KTP evaluation and final reports.
6. Adhere to the University's & Protex (UK) Systems Limited's Health and Safety Policy and guidelines.
7. Adhere to the General Data Protection and The Data Protection Act 2018.
8. Support the University Mission and Values and work within University policies and procedures
9. Any other reasonable duties that may be allocated from time to time commensurate with the grading of the post.