

KTP Associate Role Profile

Job Title:	Business Intelligence Developer - Automotive (KTP Associate, Pro-Moto)
Business Partner / University School	Pro-Moto Europe Ltd and the University of Surrey's School of Mechanical Engineering and the Surrey Business School.
Based at:	Pro-Moto Europe Limited, Unit 4, Ldl Business Centre, Station Road West, Ash Vale, Aldershot GU12 5RT.

Job Summary and Purpose:

The University of Surrey in collaboration with **Pro-Moto Europe Limited**, seeks a highly motivated recent postgraduate to lead a groundbreaking Knowledge Transfer Partnership (KTP) project in accordance with a pre-defined programme of works.

About KTP:

The KTP program isn't just a graduate recruitment scheme; it's a springboard to fast-track a career in industry. It empowers RECENT graduates and postgraduates (the Associate) to seamlessly transition from academia to a dynamic business environment. You'll tackle real-world challenges, drive innovation, and create positive impact from day one. The Associate benefits from business-based training, a dedicated professional development budget, and opportunity to develop crucial skills like leadership and project management.

A KTP Project is a powerful three-way collaboration between the Associate, a university (Knowledge Base) and a company (Business Partner). This partnership fosters knowledge sharing, innovate, and mutual learning. This KTP project is co-funded by Innovate UK and the Business Partner. The Associate will be employed by the University of Surrey but will be based at the Business Partner's location, working under the guidance of key company personnel and with ongoing support from university academics. The position is a fixed-term contract for 30-months with potential for recruitment by the business partner at the end of the KTP.

About Pro-Moto:

Pro-Moto is a leading training provider with over 100-years of combined experience in the Automotive Industry. Aiming to diversify and expand the business through close association with existing training and consultancy clients. Pro-Moto has identified a market opportunity to understand electric vehicle batteries and how this new technology performs over time.

KTP Associate Role Profile

Main Responsibilities/Activities

This project aims to create an innovative and independent platform, along with supporting services, that delivers accurate historical and current assessments of an electric vehicle's high voltage battery's state of health (SoH) and predicts future performance and lifespan. This project will bridge the gap between academic knowledge and real-world application, requiring a scientific evaluation of what's realistically achievable within the business context.

In doing so, the business will be able to:

- i) Establish a new business model and launch a credible new product/service.
- ii) Acquire technical knowhow in extracting battery data to empower consumers with informed EV purchasing decisions; while also aiding industry in better understanding EV-Battery performance and degradation.

The Associate will be responsible for developing a first-of-its-kind, data-driven platform that provides critical insights into Battery SoH, a key factor influencing EV quality, reliability, and value. As the project manager, the Associate will have ownership of the project while collaborating with both the university and the business partner whose experienced teams will provide comprehensive support. The Associate will play a crucial role in fostering knowledge exchange and integration between the business partner and the University of Surrey.

KTP Associate Role Profile

Person Specification

The post holder profile:

- A minimum postgraduate degree in Business Analytics, Data Science, Machine Learning, **OR** a related field with strong focus data analysis.
- A minimum undergraduate degree in Engineering, preferably in Automotive or Mechanical Engineering, with experience in Electric Vehicles, On-board Diagnostics, and Business Intelligence Engineering (or relevant experience).
- Proven experience in data analysis, artificial intelligence, and visualisation using programming languages such as Python, R, Rust, SQL.
- Ability to map business and information processes and present findings in reports and other documentation.
- Excellent communication skills to effectively engage with diverse stakeholders from various backgrounds, including technical, business, policy, scientific fields.
- High competency written and spoken English at a technical level (e.g. IELTS 7.0 or a degree qualification from a majority English-speaking country)

Relationships and Contacts

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.

As an integral member of the University of Surrey's KTP team, the Associate will collaborate closely with both university academics and the business partner Supervisor. This will involve building a project team and maintaining regular communication with the University's KTP Office. Weekly meetings (both online and on-site at the Business Partner's location) will ensure ongoing engagement with the academic team.

The role offers valuable networking opportunities with other KTP Associates. Additionally, the Associate will have the chance to interact with professionals from the business partner and their clients who may provide valuable feedback on the project's direction and progress.

Internal Relationships

- KTP Office
- Business Partner KTP delivery team
- Academic KTP delivery team
- Other University of Surrey Staff and Students
- Other Company Staff
- Project Steering Committee

External Relationships

- Innovate UK Business Connect - KT Adviser.
- Other KTP Associates.
- Business Partner's Clients.

KTP Associate Role Profile

Special Requirements

Based at the Business Partner site, the KTP Associate:

- must be prepared to work outside normal working hours, when required.
- must be willing to undertake further studies, as approximately **10%** of their working hours should be **dedicated to training and development**.
- will be required to travel to the University of Surrey, and occasionally more widely.

As a university employee, all KTP Associates are expected to:

- Undertake such other duties within the scope of the KTP as may be requested by their Supervisors or Line Manager.
- Positively support equality of opportunity and equity of treatment to colleagues and students in accordance with the University of Surrey Equal Opportunities policy.
- Follow the Business Partner's policies and working practices at all times to ensure that no disclosure of confidential information results from their actions.
- Follow University/School/Department policies and working practices at all times to ensure that no disclosure of confidential information results from their actions.
- Ensure they are aware of and abide by all relevant University / Business Partner / KTP regulations and policies relevant to their role.
- 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
- Be a team-player, supportive of colleagues and always operating in a collegiate manner.

KTP Associate Role Profile

Addendum

This document provides additional information relating to both specific aspects of the post/faculty and any post specific person specification criteria. The information contained within this document should always be read in conjunction with the accompanying generic Role Profile.

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Background Information

The working hours, annual leave, and holiday entitlement are those of the Business Partner.

The standard working hours of Pro-Moto Europe Ltd are 37.5 hours per week. The standard hours are 08:30-17:00, with 60 minutes taken as a lunch break.

The annual leave entitlement is 25 days per annum plus UK public holidays. Typically, there has been a mandatory shut down over the Christmas period, which has involved using some of the holiday entitlement (3 days). The holiday year runs from 1st January to 31st December.

Potential to secure a permanent job with the business at the end of the KTP.

Please also see <https://www.pro-moto.co.uk/> and <https://www.ktp-uk.org/>

Benefits to expect from the University of Surrey include a generous pension, cycle-to-work scheme, season ticket loans. Access to a wide range of courses under the Learning & Development Programme; library access

Benefits to expect from the KTP Programme include opportunity to gain professional qualifications or a higher degree. Access to academic support and the University's facilities to help deliver the KTP project.

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. This is in addition to the criteria contained within the accompanying generic Role Profile.

	Essential/ Desirable
Minimum postgraduate degree in Business Analytics, Data Science, Machine Learning, OR a related subject, OR have an MSc with strong data analytics focus and relevant work experience.	E
Background in Automotive or Mechanical engineering with experience in Electric Vehicle and On-board diagnostics and Business Intelligence Engineering.	E
A high level of competence in spoken/written English at a technical level (i.e. IELTS 7.0 or a degree qualification studied in a majority native English-speaking country)	E
Experience in Data Analysis and AI tools i.e. Python, R, Power BI, SQL, and advanced Excel, in a programming environment.	E
Experience in data visualisation including Graphical User Interfaces.	E
Experience in data-driven research.	E

KTP Associate Role Profile

Ability to focus on the strategic issues without getting lost in the detail; translate technical requirements into layman's language.	E
Ability to drive and manage a KTP, balancing technical and strategic elements	E
Strong attention to detail leading to a structured, logical approach to experimental design; accurate record keeping and professional reporting.	E
An interest in the automotive industry and electric vehicles would help with fitting into the business/project.	D
Enthusiasm for the scientific process, embracing new ideas whilst bridging the gap between academia/industry preserving the interests of both.	D
Strong interpersonal skills: ability to communicate and work with people at all levels.	D
Special Requirements	Essential/ Desirable
A clear understanding of the Business Partner where you will be based; and of the KTP programme - how KTP works with business and the University, and the vital role the KTP Associate will play.	E
Ability to absorb knowledge and further develop skills during the KTP to complement those skills already in place.	E
Key Responsibilities	
This document is not designed to be a list of all tasks undertaken but an outline record of any faculty/post specific responsibilities (5 to 8 maximum). This should be read in conjunction with those contained within the accompanying generic Role Profile.	
<ol style="list-style-type: none"> 1. Develop CAN based On-Board-Diagnostics (OBD) software to acquire data. 2. Develop vehicle and battery models to identify the characteristic values for battery State of Health (SoH) estimation and estimate battery SoH. 3. Applying advance statistical techniques to develop a highly accurate algorithm for assessing battery State of Health (SoH) in electric vehicles. 4. Go-to-Market Model Development - This will include plan of commercialisation of the platform, a business plan. and a demo. 5. Present data in the form of visualisations that relate to the needs and priorities of customers. They'll need to choose and learn prototyping tool(s), implementing them to meet commercial use cases. 6. Lead and deliver an innovative project, bringing the University academics and the Business Partner together 7. Embed new knowledge in both the Business Partner and the University. 	
N.B. The above list is not exhaustive.	

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