

Robotics/Automation Technician



ROLE DESCRIPTION

GRADE

Grade 5

LOCATION

Merchiston, Edinburgh

LINE MANAGER

Technical Services
Manager

ROLE SUMMARY

This School of Engineering & the Built Environment utilises technicians to support its workshops, labs, and infrastructure, both for teaching and research. The role holder is responsible for delivering a high-quality technical service to support the undergraduate and postgraduate Engineering degree courses.

The role holder is responsible for delivering a high-quality technical service to support academic and research activities in the School of Engineering & the Built Environment, offering practical support and expert knowledge in an automation, robotics, and software render context.

LINE MANAGEMENT RESPONSIBILITY FOR:

This role does not have any line management responsibilities currently.

MAIN DUTIES AND RESPONSIBILITIES

- To manage the day to day running of the Robotics/Automation labs. Offering technical support for developing and maintaining the technology including Siemens Industrial Control (PLC's, HMI's and networking devices), Mitsubishi Industrial Robots, Festo Robotino Autonomous Robots and Festo Pneumatics.
- Provide a consultation service to academics and students to support the design, construction, and modification of bespoke automation equipment for research or teaching initiatives to include general assembly, wiring, soldering, technical drawing and wiring schematics.
- Direct support of staff, undergraduate and postgraduate students in teaching and research, including assisting in classes, workshops, preparation of materials e.g., manuals, SOPs, risk assessments and COSHH documents as required to contribute to the delivery of a high-quality student experience.
- Offer technical guidance to students with complex wiring schematics and practical support to wire, solder and select appropriate electronic components to construct the physical schematic. Communicate complex concepts to students relating to automation.
- Maintain and operate the school's 3D Printers in line with University H&S Policy. Provide technical guidance to academics and students and facilitate the 3D print of their prototypes using appropriate materials.
- Oversee SEBE software asset register ensuring that timely requests for upgrades/licence renewals are submitted by academic colleagues to IS to allow them ample time to roll out the software to meet school teaching and research needs.
- Assess SEBE PC/laptop hardware to establish where new hardware (including monitors, component upgrades, peripheral devices etc.) will be required in line with the Hardware Refresh Policy, define appropriate device specifications as required to ensure that required software is supported on an array of platforms, and work with IS on relevant procurement activities.
- Ordering equipment and consumables for the Robotics labs and liaising with procurement to ensure timely commissioning of new equipment to support teaching and research activities.
- Actively participating in and assisting academic staff in lab classes by preparing demonstrations and setting up complex equipment.
- Collaborating with academic and research colleagues on the practical and technical aspects of course development and research activities.
- Responsible for ensuring that all equipment is maintained and operating within health and safety legislation and the appropriate safety paperwork is prepared and reviewed regularly liaising closely with H&S colleagues. Ensuring that all lab users including staff and students work safely and have prepared the necessary safety paperwork e.g., risk assessments, COSHH forms.
- To undertake any other duties as required by the Technical Services Manager to support School teaching and research activities.
- Role model the University's values & behaviours.
- Be responsible for ensuring that the information and records processed (received, created, used, stored, destroyed) on behalf of the University are managed in compliance with ALL applicable legislation, codes and policies e.g. [Data Protection](#), [Information Security](#) and [Records Management](#).

PERSON SPECIFICATION

ESSENTIAL

DESIRABLE

EDUCATION / QUALIFICATIONS

- Degree or equivalent relevant work experience. ✓

SKILLS / EXPERIENCE

- Demonstrable skills in Industrial Robotics and Automation specifically Programmable Logic Controllers (PLC) / Human Machine Interfaces (HMI) associated software and Pneumatics. Ability to automate and simulate complex automation processes. ✓
- In-depth knowledge of design software, electronics, and electrical skills. ✓
- Software linguistic knowledge in automation using a variety of software including C++ programming skills. ✓
- Experience of Microsoft Windows and the compatibility of various software applications e.g. Autodesk suite. ✓
- Knowledge of Health and Safety legislation pertaining to the post. ✓
- Experience of MATLAB, SIMULINK, Arduino Microcontrollers, NI MyRIO, 'C' Programming. ✓
- Experience working in a higher education environment. ✓
- Experience of operating 3D Printers to develop functional prototypes. ✓
- High level of communication and interpersonal skills. ✓
- Good team working skills. ✓
- Ability to solve problems and make decisions to deliver high quality technical support. ✓
- Ability to relate successfully to colleagues, students and external colleagues. ✓
- Excellent IT skills. ✓
- Good time and project management skills. ✓
- Flexible approach to work. ✓