

Engineering and Advanced Manufacturing – Pilot Project

Additive Manufacturing – Rapid 3D Prototyping

Delivered by: Kirklees College

Kirklees College is keen to work with local precision manufacturing companies to explore and develop the skills required to carry out rapid prototyping using advanced manufacturing technologies, in particular additive manufacturing. The project aims to trial and test the skills needed for Additive Manufacturing development in conjunction with SMEs in the local region. In the short term, the development work will allow Kirklees College to better understand the appetite amongst local employers and to determine which skills are in the highest demand for industry growth. Longer term, the view is that in nurturing the content with employers, the on-going development will progress into Apprenticeship development for the future. Although the initial concept will be beneficial to the College in better understanding SMEs skills demand in 3D Prototyping, there is the opportunity to build pipeline for Higher Education when thinking about the potential in developing these skills.

Rapid Prototyping is key to quickly developing concept ideas into new products and bringing these new products to market. It offers several commercial advantages to manufacturing companies, including but not limited to:

- The ability to explore and realize concepts more quickly.
- Apply repeated designs and incorporate changes that allow for the evaluation and testing of the product.
- The ability to communicate concepts concisely and effectively.
- The ability to thoroughly test and refine a concept.

The purpose of the project is to work with local employers to further explore the gaps in Additive Manufacturing knowledge and to identify the skills required to carry out the 'Prototyping Technician' job role and to then to develop appropriate training opportunities to fill any skills gaps.

It is anticipated that the 'The Prototyping Technician' will need to be competent in 3D Printing, CNC machining, Laser Cutting, 2D&3D CAD/CAM and General Hand Fitting.

This project will explore which of these competencies' employers are needing to develop within their workforce and how we can incorporate specific training, whether that be upskilling of existing technicians or creating new apprenticeship pathways.

For more information, please contact Helen Rose, Director of External Relations – hrose@kirkleescollege.ac.uk