

West Yorkshire

# I4.0 CHAMPIONS PROGRAMME: Skills Connect



Calderdale College West

Yorkshire

Combined

Tracy

Authority West Yorkshire

IIB

i4.0

**Brabin** 

Mayor of

This training is **fully funded** by Skills Connect through the West Yorkshire Combined Authority and the West Yorkshire mayor as part of Future Goals. It is open to individuals aged 19<sup>+</sup> working in manufacturing and engineering in West Yorkshire.



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## Sessions Overview

#### Introduction to Industry 4.0

This session will introduce you to the principles that underpin Industry 4.0, also known as the Fourth Industrial Revolution, represents a fundamental shift in the way manufacturing processes are carried out. This revolution is characterised by the integration of advanced technologies such as artificial intelligence, robotics, the Internet of Things, and big data analytics into the manufacturing sector. These principles aim to improve productivity, reduce costs, and enhance product quality, ultimately leading to greater competitiveness in the global marketplace.

#### Advanced Simulation and Design

Participants will learn about the latest technological advancements in Design and Advanced Simulation and how they are revolutionising the manufacturing processes in the era of Industry 4.0. They will explore how these technologies can be harnessed to create virtual prototypes, simulate real-world scenarios, and enhance the efficiency and productivity of engineering and manufacturing operations. This session will introduce the use of Advanced Simulation, Virtual Reality (VR), Augmented Reality (AR) in the context of all types of design (parts, processes and products) for Engineering and Manufacturing, specifically in relation to Industry 4.0.

#### **Robotics and Automation**

This course will explore the advancements in robotics and automation within the engineering and manufacturing industries, particularly in the context of Industry 4.0. Participants will learn about the various applications of robotics and automation in streamlining production processes, enhancing efficiency, and improving overall productivity in manufacturing settings.

#### Additive Manufacturing: 3D Scanning and Printing

This session will introduce the principles and applications of 3D scanning and 3D printing in the field of Engineering and Additive Manufacturing. Participants will learn how to capture physical objects in a digital format using 3D scanning technology, How to manipulate and modify these digital models to generate technical drawings for component replacement and other engineering projects. Participants will gain an understanding of how to go from technical drawing to printing a component.

#### **Process Control Systems: Data generation and Data Analytics**

This session will explore the use of sensors in engineering and manufacturing processes to monitor and collect data for analysis. The focus will be on leveraging this data to drive efficiency and productivity in the context of Industry 4.0. Participants will learn about different types of sensors, their applications, and how they can be integrated into existing processes. The session will also cover data analysis techniques and tools to make informed decisions based on the sensor data.

#### **Review Workshop- What Next?**

The Review Workshop provides valuable insights and feedback that can help identify the next steps

- **Action Planning**
- **Further Training and Resources**
- **Change Management** •

### Location

The I4.0 Hub. West Yorkshire Manufacturing Services Kirkdale House Armytage Road Brighouse HD6 1QF

#### What3words: ///guises.chef.staple

- Aged 19+
  Living in West Yorkshire; and are: Employed incl. self-employed Please note the participant must have the right to legally reside and work in the UK

They must **not**: Be in full time education

- Be undertaking an apprenticeship at the time of joining Have completed a previous Skills Connect course (participants can only access the funding once) Be economically inactive (definition of economically inactive is not being able start work in the two next weeks).

Students and Apprentices are NOT eligible. Any subsequent training or education must commence after the last day of training on Skills Connect.

- Places per employer will be limited to:
  Four (4) individuals per employer + 250
  Three (3) individuals per employer between 100-250 employees
  Two (2) individuals per employer between 50-100 employees
  One (1) individual per employer between 1-50 employees

