



AIMS

Advancing Innovative Manufacturing
in the south of Scotland

Introduction to Universal Robots
e-Series

Objective

The course aims to provide participants with a comprehensive understanding of Universal Robots e-Series, including its features, programming basics, and applications. By the end of the course, participants should be able to confidently work with Universal Robots e-Series and have a foundational knowledge to pursue advanced applications in industries.

Note: This course outline is flexible and may be adjusted based on the participants' prior knowledge, pace of learning, and specific interests. The hands-on programming exercise provides a practical application of the concepts learned during the course. On successful completion of the course, candidates will receive: *Certificate of Participation*.

DURATION: 6 HOURS

Agenda

9:30 AM – 10:00 AM: Registration and Welcome

- Registration process
- Introduction to the trainers and participants
- Overview of the course structure and objectives

10:00 AM - 10:30 AM: Introduction to Universal Robots e-Series

- History and evolution of Universal Robots
- Overview of the e-Series: UR3e, UR5e, UR10e
- Key features and specifications

10:30 AM - 10:45 AM: Morning Break

10:45 AM - 11:45 AM: Safety and Setup

- Safety guidelines when working with e-Series robots.
- Physical setup and installation procedures
- Introduction to the control pendant

11:45 AM - 12:30 PM: Getting Started with Programming

- Basics of the Polyscope programming environment
- Understanding the teach pendant interface.
- Creating a simple program: Move, Stop, and Inputs/Outputs

12:30 PM - 1:00 PM: Lunch Break

1:00 PM - 2:00 PM: Advanced Programming Concepts

- Understanding waypoints and poses
- Working with variables and expressions
- Introduction to advanced motion commands

2:00 PM - 2:30 PM: Hands-On Programming Exercise

Participants will have the opportunity to apply the concepts learned in a practical programming exercise in groups.

2:30 PM - 2:45 PM: Afternoon Break

2:45 PM - 3:45 PM: Applications and Use Cases

- Overview of common applications for e-Series robots
- Case studies and examples
- Integration with other systems and peripherals

3:45 PM - 4:30 PM: Q&A, Troubleshooting, and Course Conclusion

- Addressing participant questions and concerns
- Troubleshooting common issues
- Course feedback and evaluation