

# Learn how to control a robot cell in complete safety





# **TRAINING MODULES**

M1 - ROBOT OPERATION 1 M2 - ROBOT OPERATION PRO





### **M1 - ROBOT OPERATION 1**



**OBJECTIVES:** 

SAFETY RULES

SYSTEMS





# **M1 - ROBOT OPERATION 1**

#### Safety when using a KUKA robot

 Recognising and avoiding hazards when handling a KUKA robot / Overview of safety devices when using KUKA robots

#### Basic knowledge of how a KUKA robot works

Overview of the robot system

#### Move the robot manually

• Clear the robot safely axis by axis / Clear the robot safely in World, Base or Tool marks

#### Run programmes in manual and automatic modes

 Choosing and selecting the appropriate operating mode / Making blocks coincide / Selecting, starting and running robot programs / Running a program from a PLC / Restarting a program after a fault

#### Man-machine communication

• Reading and interpreting system messages / Displaying the robot's current position

#### Using the gripper (KUKA.GripperTech)



### DURATION

2 days

PUBLIC Operators

### **M2 - ROBOT OPERATION PRO**



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#### **OBJECTIVES :**

- OPERATE A ROBOT CELL IN COMPLIANCE WITH ROBOT SAFETY RULES
- MOVE THE ROBOT MANUALLY AND RESTART ROBOT PRODUCTION AFTER A PROGRAMME STOPPAGE
- MODIFY EXISTING ROBOT PROGRAMS WITHOUT CHANGING THE STRUCTURE OF THE PROGRAM (MODIFYING PARAMETERS SUCH AS SPEED AND POSITION COORDINATES)
- CREATE NEW PROGRAMS FROM EXISTING ONES AND ADAPT THEM

# **M2 - ROBOT OPERATION PRO**

#### Safety when using KUKA robots

• Recognising and avoiding hazards when using KUKA robots / Overview of safety features when using KUKA robots **Basic knowledge of the structure of a robot system** 

#### Moving the robot manually

- Move the robot in axis-by-axis mode / Move the robot in straight-line movements in relation to the robot frame, the tool and the workpiece
- Run and process robot programs manually and in Automatic mode
  - Select and set the appropriate mode / Perform a COI initialisation run / Select, run and process robot programs / Run a program with a PLC

#### Human-machine communication

• Display and filter the message table / Call up robot states (input and output signals, timer, flags, counters) / Read and interpret robot control messages / Call up the robot's current position / Display variables and modify values

#### Using technological software packages

• Using the gripper / Programming gripper instructions with KUKA online forms

#### Using program files

• Deleting, renaming and duplicating modules / Archiving and restoring programs

#### **Reading structured programs and flowcharts**

#### Adapt and modify robot programs

 Create new move instructions (PTP or path moves) using KUKA online forms / Modify move instructions / Correct and adapt positions

#### Read and understand logical instructions in existing programs

Principle of calibration and calibration control

#### PREREQUISITES None

## DURATION

4 days

**PUBLIC** Operators

# FOR MORE INFORMATION :



Find out more on the official Kuka website, here are the links to the module descriptions:

Robot Operation 1

Robot Operation PRO



A number of training dates are scheduled the year.

## **Robot Operation 1**

- 13/03/24 to 15/03/24
- 25/09/24 to 27/09/24

## **Robot Operation PRO**

- 29/01/24 to 02/02/24
- 18/03/24 to 22/03/24
- 30/09/24 to 04/10/24



The course ends with an end-of-course test. A certificate is awarded on successful completion of the test.



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