# **Bosch Rexroth Regional Training Centre (BRRTC)**



## **Driving Adoption of Advanced Manufacturing** in Jurong Innovation District

### **About Us**

A Centre of Excellence with state-of-the-art facilities with the aim to drive the adoption of advanced manufacturing in the new Jurong Innovation District (JID), through Enterprise Engagement, Certified Trainings and Proof of Concepts (PoCs)

## Why Choose Us?

Prepare you and your team to be part of the pool of highly-skilled and competitive workforce to adapt to the evolving technologies tailored to industry needs.



Relevant for SMEs, working professionals, students who are interested to learn more about i4.0 technologies and solutions [with 70% - 90% subsidy]



Targeted to companies with problem statements and are keen to embark on this pilot implementation with i4.0 technologies [with 70% - 90% subsidy]

### **Key Collaboration Partners**



A Bosch Company



Singaporean-German Chamber of Industry and Commerce Deutsch-Singapurische Industrie- und Handelskammer







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# **BRRTC Short Courses**

1

# **Key Principles in Advanced Manufacturing**

This course teaches advanced manufacturing principles in Industry 4.0, focusing on automation, smart technologies, and data-driven decision-making.

### **Introduction to Industrial Robots**

This course provides students with industrial Robotics knowledge and skills for advanced manufacturing and connected systems, focusing on Robotics implementation in Industry 4.0 context.

2

3

# Al Technologies using Python for Advanced Manufacturing

This course equips manufacturing professionals with Python programming skills to use artificial intelligence (AI) in Industry 4.0. It covers Python fundamentals, machine learning, data analytics, and practical applications.

## Cyber Security for Advanced Manufacturing

<u>This course</u> enhances cybersecurity in advanced manufacturing, focusing on frameworks, threat detection, risk mitigation, secure network architecture, IoT security, and incident response planning.

4



# **Robotics Programming (ROS) for ADvanced Manufacturing**

In this course, participants will gain an understanding on Robot Operation System (ROS) as a software integration tool for implementation of an industrial robot work cell and working with Collaborative Robots.



### **Our Training Partners**

















# BRRTC AHK Course



# AHK 14.0 Industry Specialist



Course duration 79.0 hr(s)



Licensed by Singaporean-German Chamber of Industry and Commerce (AHK)



- Applicable across all industry sectors.
- Suitable for executives and managers who are responsible for driving continuous improvement and business development initiatives through technology applications.



## **Course Overview**

The German federal standardised training programme equips participants with essential skills for Industry 4.0 implementation. It equips individuals with the knowledge to identify potential in production and logistics departments, devise proposals, and manage projects, with the final assignment involving their company.



## **Course Objectives**

#### The course focuses on:

- Understanding the fundamentals of Industry 4.0
- Realizing new opportunities for new business models by implementing Industry 4.0
- Understanding of the system topology and entire process chain
- Specific Industry 4.0 applications and practical implementation examples from different, production areas, ranging from manual workplaces to fully automated production and being able to transfer these examples into the own production
- Data security in the implementation of Industry 4.0
- Insight into future working methods in the digital world



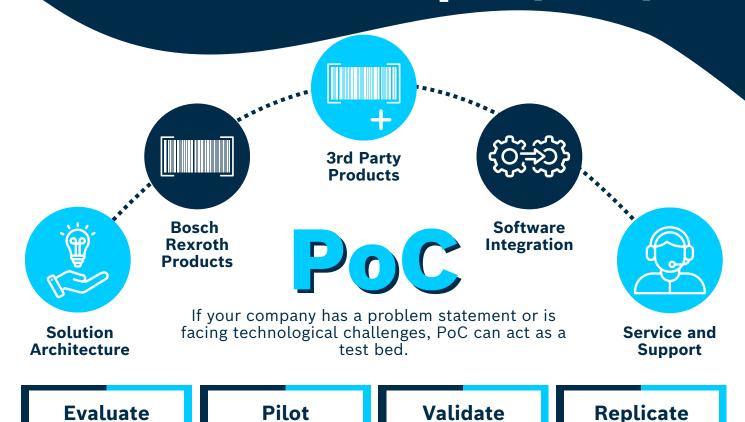
## **Certification**

Participants with 100% attendance and pass the final assessment will be awarded Singaporean-German Chamber of Industry and Commerce (AHK) Certificate, NTUC LearningHub & Bosch Rexroth Joint Certificate of Completion.

Singaporean Citizens may receive up to 90% fee subsidy from the government



# **Proof of Concepts (PoC)**



We trial together, to pilot solutions with access to i4.0 technologies. When the PoC results in a positive outcome, scaling up to full implementation can be considered by the companies. By evaluating, piloting, validating and replicating, PoC can help bridge the gap.

### **Solutions Considered**

Here are some key factors for consideration when we design the solutions for the problem statements.



### **Non-Intrusive Installation**

Minimal interruption to current operation



#### Cost **Effective**

Minimal cost & effort to implement and upkeep



### Cloud **Based**

Accessible from remote sites and cross platform



#### Measurable **KPI**

Performance indicators are measurable and actionable

**PoC Solution Partners** 













