



TechEd TUESDAYS

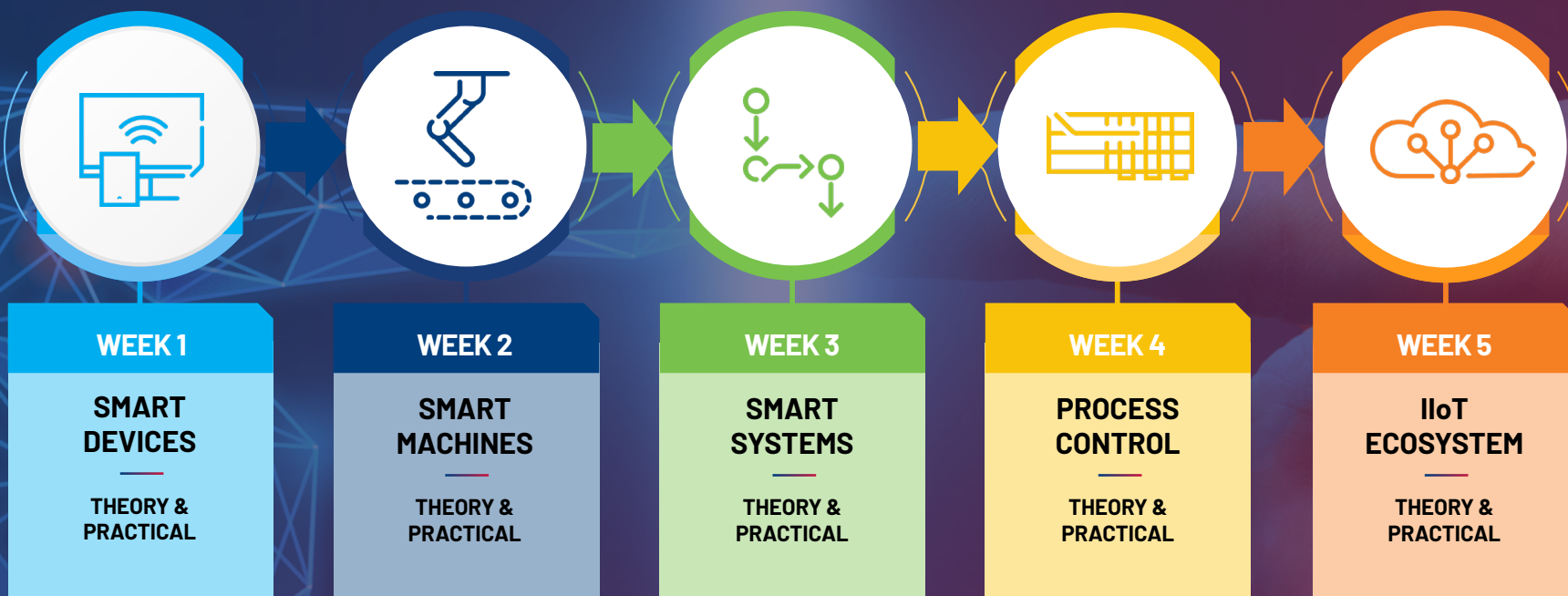
A Rockwell Automation connected training experience

PROGRAMME AGENDA



**Rockwell
Automation**

PROGRAMME MODULES INCLUDE:



Week 1
SMART
DEVICES

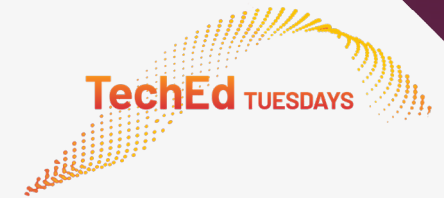
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SMART
MACHINES

Week 3
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IIoT
ECOSYSTEM

WEEK 1: SMART DEVICES



THEORY DAY

Event start time: 9:00 (CET)

Setting the scene for SMART Devices

24VDC Control Circuit - From supply and protection to signaling with motor control interaction

Smart devices are the first step to capturing the data you need to make more informed decisions and leverage advanced analytics. They open new windows of visibility into your operations to help proactively address downtime issues, reduce safety risks, and boost productivity across the automation lifecycle. Industrial Components embeds in its portfolio smart 24VDC control voltage protection and signaling to complete core business of Smart Motor application

Learn about the features available to engineer device-level diagnostics to speed up troubleshooting and maintenance and take steps towards better system performance to reap the benefits of an information-enabled machine/system

Increase productivity and asset utilisation with Smart Sensing and Safety on a MagneMotion machine

Find out how you can increase productivity and quality, by using smart sensors and smart safety devices, to deliver plant floor data from device to dashboard, and providing greater supply chain transparency

News on PowerFlex® Variable Frequency Drives, and how to integrate the drive into your safety solution

For many manufacturers reducing downtime, sizing and cost are a constant priority. Learn about the new functions and features of the PowerFlex Drives with a focus on the PF755T and receive an overview on how our safety products work with Drives to enable smart solutions

Event end time: 12:00

End of session

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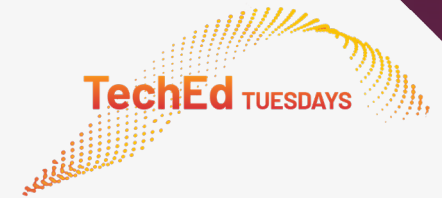
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WEEK 1: SMART DEVICES



PRACTICAL SESSION: SELECT THE SESSION WHICH SUITS YOU BEST

Option 1: Integrated Motion on Ethernet/IP

In this lab, you will be introduced to the Logix Designer software environment as the single software tool used by Rockwell Automation

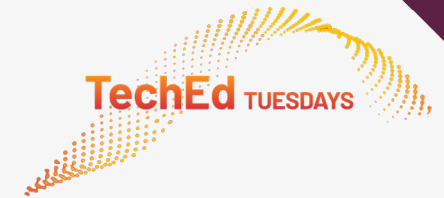
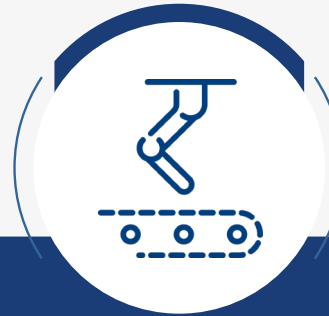
Option 2: MagneMotion ICT Hands-on Experience

This lab introduces independent cart technology using a MagneMover lite demo system. You will be exposed to concepts such as paths, nodes and the node configurator tool. You will also learn how to use Application Code manager to simplify the application programme

Option 3: PowerFlex 755 – S4 Advanced Safety

This lab demonstrates the basics of Advanced Network Safety using the PowerFlex® 755 AC drive with a 20-750-S4 card that allows different types of operator / safety interactions with a typical machine

WEEK 2: SMART MACHINES



THEORY DAY

Event start time: 9:00 (CET)

Setting the scene for SMART Machines

SMART Machine

Design smart machines leveraging Digital Engineering

Micro Control System

Think Micro Control is just for small applications? Think again as it offers more options, more flexibility, and more cost-savings than you may know. In this session, we will discuss how the Micro Control System from Rockwell Automation addresses key smart manufacturing challenges faced by machine builders. We will examine the need to automate their machines to achieve shorter time to market and lower cost to develop and deploy. We'll share:

- An overview of how various products in a Micro Control architecture can solve different applications in an economical way
- Reference applications with architecture examples to demonstrate how a Micro Control System can meet assorted machine requirements
- How one development software is used to programmeram and configure the products in the Micro Control System with ease

The importance of an Ethernet Switch in a Smart machine

In a Smart machine of today it is important to have Performance, Availability, Diagnostics, Safety and increasingly Security. A Smart machine is a connected machine. This connection to the line and advanced systems begins with a well designed Network Infrastructure. This session will explore the importance of the correct Managed switch features for the delivery of the goals of a "Smart Machine"

Event end time: 12:00

Event wrap up

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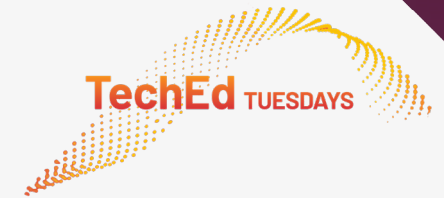
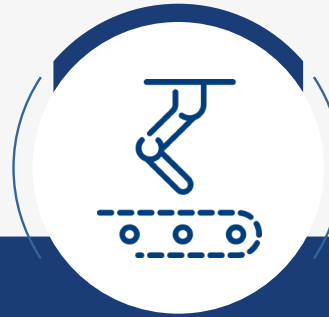
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WEEK 2: SMART MACHINES



PRACTICAL SESSION: SELECT THE SESSION WHICH SUITS YOU BEST

Option 1: Studio 5000 Logix Designer Basics Lab - v33

This session will provide an overview of the core capabilities offered in the Studio 5000 Logix Designer® application and highlight the importance of good design practices

Option 2: Studio 5000® Application Code Manager Project Execution and Library Management Lab

Quickly build your automation projects using the Rockwell Automation Application Code Manager. This lab will provide you the opportunity to create project content by selecting library objects, providing configuration data, such as object name and description, equipment setpoints, control interlocks, conditional inclusion (i.e., has diagnostics). Once all the configuration, not programming, is provided, you will initiate a project build (ACD file) that you will be able to download to a controller to run

In addition, this lab will provide you with the opportunity to create a new library object that includes Logix, FactoryTalk® View SE, FactoryTalk® Historian and FactoryTalk® Alarms and Event content. Work with ACM Library Designer and Library Object Manager to build and publish library objects into the ACM database. Create highly parameterised library objects for modular reuse and flexibility

Option 3: Basic Stratix® Switch and EtherNet/IP Features in Converged Plantwide Ethernet (CPwE) Architectures

Learn to integrate Stratix® switches and EtherNet/IP devices into your plant network to improve reliability, manageability, and ease of use. You will become familiar with Stratix® 5700 features, management and diagnostics tools including Device Manager, Studio 5000® Add-On Profiles (AOP), FactoryTalk® View faceplates, and configure a Device Level Ring (DLR) Topology

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WEEK 3: SMART SYSTEMS



THEORY DAY

Event start time: 9:00 (CET)

Setting the scene for SMART Systems

The Backbone of Success with Data: OPC UA and Industrial Communications

The right data in the right place at the right time is critical for extracting insights and intelligence in a connected system. In this session you will learn how Rockwell Automation® technologies use OPC UA to create the right data pipelines in your system. With the right strategy and technology deployment, you will have a system that is ready to help make rapid decisions based on the right data

Empowering OT to enable the Digitisation of Smart systems

Many Digitisation projects are hampered by the communication of the required data from the controller (OT) to the Software environment (IT). Even with open standards this is still a daunting time-consuming task for the IT engineer who would prefer to dedicate their project time to driving business value from machine data, not spending time setting up data communications. Converge IT and OT like never before with FactoryTalk® Edge Gateway software. Here you can create information models at the Operational Technology (OT) layer and efficiently map to upstream IT applications, improving performance KPIs like OEE, predictive quality and process efficiency

Building a more secure Smart System

As more companies are disrupted by cyber incidents, companies are putting more importance on Security in their Manufacturing systems. For many years Rockwell Automation has been working to improve its Security Solution offering following the IEC 62443 Industrial Cyber security standard, to assist customers with securing their Industrial Control Systems at multiple layers. This session will review the measures that Rockwell Automation has implemented over the years and some new features that are evolving to improve System security for Smart Systems

Event end time: 12:00

End of session

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WEEK 3: SMART SYSTEMS



PRACTICAL SESSION: SELECT THE SESSION WHICH SUITS YOU BEST

Option 1: FactoryTalk Linx OPC UA

This session will introduce users to the new features in the CPR9 SR11 release of Rockwell Automation® connectivity software products. Connectivity software products include FactoryTalk® Linx (formerly known as RSLinx® Enterprise), FactoryTalk® Linx Gateway (formerly known as FactoryTalk® Gateway), RSLinx® Classic, and KEPServer Enterprise

Option 2: Introduction to FactoryTalk Edge Gateway

An introduction to the capabilities of the FactoryTalk Edge Gateway. This lab takes the user through various aspects of configuration and deployment of data collection, modelling and application egress from the perspectives of IT, operations and control system engineers. Models are created and modified through both manual tags and FactoryTalk Smart Objects with output to SQL Server data tables visualised in Thingworx

Option 3: FactoryTalk Security Basics

Learn how to design and build a FactoryTalk® Security infrastructure to secure, manage and access resources in your control system. In this lab you will learn how to: configure FactoryTalk Security for the first time after a default installation; configure users and groups, system policies, and secured actions in the FactoryTalk® Administration Console to manage access control and permissions; as well as have the opportunity to apply basic security restrictions to Studio 5000 Logix Designer® projects. Topics include introduction to FactoryTalk® Directory, user/group management, setting security policies in the FactoryTalk® Directory, and understanding single sign on

WEEK 4: PROCESS CONTROL



THEORY DAY

Event start time: 9:00 (CET)

Setting the scene for Process

Live presentation Optimise your DCS implementation with PlantPAx 5.0

PlantPAx 5.0 driving customer specifications to realise significant benefits on capex & opex

Live presentation on P-Controller benefits for your next project

Discover through a live demonstration of our latest release the benefits of the embedded process library in PlantPAx 5.0

Live presentation of Process Competency

Understand the right Process Competency for Rockwell Automation and further explore the different requirements for being credentialed as an official Process SI Partner

Event end time: 12:00

End of session

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WEEK 4: PROCESS CONTROL



PRACTICAL SESSION: SELECT THE SESSION WHICH SUITS YOU BEST

Option 1: System Design – PlantPAx® 5.0 – New Controllers and Workflows for Process Control

The PlantPAx® 5.0 system helps design lab integration workstations, servers and controllers for implementation teams designing process control applications

Option 2: PlantPAx 5.0® System Implementation Application Development Advanced Lab

PlantPAx® 5.0 application design lab explores the workflows required to operate process control applications using modern technologies

Option 3: System Implementation – FactoryTalk® Batch v14 – Applications Development Lab

Discover new workflows and tools to gain better control over batching applications that improve yield, efficiencies, and reporting

WEEK 5: IIoT ECOSYSTEM

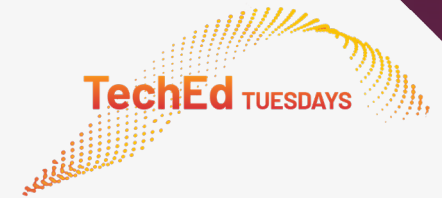


THEORY DAY

Event start time: 9:00 (CET)	Introduction to the Information Solution portfolio
	<p>Kezzler: Enterprise traceability: A way for IT to leverage OT data Learn about enterprise traceability for operational excellence and consumers' augmented product experience. Kezzler is using MES integration as a digital thread to every single manufactured product, creating a digital twin of the physical product flow. Rockwell Automation & Kezzler have teamed up to provide extended traceability for brands allowing consumers to have an augmented experience with the exact product in hand</p> <p>Machine Learning Options from Edge to Cloud Predictive maintenance is not a thing of the future, it can be made possible today. Rockwell Automation has many solutions that utilise machine learning in a device, or as part of a platform to provide predictive and prescriptive maintenance information to reduce downtime and improve performance</p> <p>Fiix: Empower your maintenance team: Overview, Use-Cases and Live demonstration Learn how Fiix can help maintenance and operations teams schedule, organise and track equipment maintenance, connect to business systems, and make data-driven decisions</p>
Event end time: 12:00	End of session

WEEK 5:

IIoT ECOSYSTEM



PRACTICAL SESSION: SELECT THE SESSION WHICH SUITS YOU BEST

Option 1: Using Complex Computing and Machine Learning Closest to Production for Impactful Improvements

Making production decisions that have the most impact for improvement is key. In this lab, you will learn about the use of FactoryTalk Analytics Edge in operationalising your machine learning models and performing complex calculations, as close to the control system as possible. Learn how to take PMML models and score them quickly and efficiently to be used directly on your machines

Option 2: Notifications and Taking Action Using IoT Data with FactoryTalk® InnovationSuite

Providing operators, managers and engineers with relevant and timely information regarding operational status of their equipment is fundamental in achieving efficient, world-class operations. In this lab, you will learn about the various techniques used to notify users of various situations that require immediate action. You will leverage ThingWorx and ThingWorx Flow in order to generate notifications. Don't wait for things to happen - take action

Option 3: OEE and Root Cause Analysis for improved asset utilisation

Do you know how your plant is operating right now? Using FactoryTalk® Metrics, ThingWorx and FactoryTalk® DataView, you can create real-time monitoring and immediately access reports to help reduce downtime, increase productivity and boost OEE

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