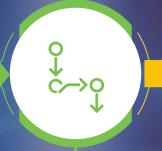


## **PROGRAMME MODULES INCLUDE:**











**WEEK 1-2** 

SMART DEVICES

WEEK 1: THEORY WEEK 2: PRACTICAL **WEEK 3-4** 

SMART MACHINES

WEEK 3: THEORY WEEK 4: PRACTICAL **WEEK 5-6** 

SMART SYSTEM

WEEK 5: THEORY WEEK 6: PRACTICAL

**WEEK 7-8** 

PROCESS CONTROL

WEEK 7: THEORY WEEK 8: PRACTICAL **WEEK 9-10** 

SOFTWARE /

WEEK 9: THEORY WEEK 10: PRACTICAL







ent 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 t 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: 13:00	Appetisers for labs followed by end of session









Event start time: 9:00 (CET)	What's new in SMART Devices
	Preparation
	INSTRUCTOR LED SOFTWARE LABS
	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
Event end time: 12:00	End of session









	SMART Machine Design smart machines leveraging Digital Engineering
SMART Machine Think Micro Control is just for small applications? Think again as it offers more options, more flexibility, and more cost-sall in this session, we will discuss how the Micro Control System from Rockwell Automation addresses key smart manufacture. We will examine the need to automate their machines to achieve shorter time to market and lower cost. We'll share:	
	<ul> <li>An overview of how various products in a Micro Control architecture can solve different applications in an economical way</li> <li>Reference applications with architecture examples to demonstrate how a Micro Control System can meet assorted machine requirements</li> <li>How one development software is used to programmeram and configure the products in the Micro Control System with ease</li> </ul>
	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"



# WEEK 3-4: SMART MACHINES





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Event start time: 9:00 (CET)	What's new in SMART Machines
	Preparation
	INSTRUCTOR LED SOFTWARE LABS
	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
Event end: 12:00	End of session









Event start time: 9:00 (CET) Setting the scene for SMART Machines

#### 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: 13:00 Appetisers for labs followed by end of session



# WEEK 5-6: SMART SYSTEMS

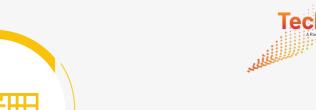




Event start time: 9:00 (CET)	What's new in SMART Machines	
	Preparation	
	INSTRUCTOR LED SOFTWARE LABS	
Option 1: FactoryTalk Linx OPC UA  This session will introduce users to the new features in the CPR9 SR11 release of Rockwell Automation® connectivity software Connectivity software products include FactoryTalk® Linx (formerly known as RSLinx® Enterprise), FactoryTalk® Linx Gateway 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	
Event end time: 12:00	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	









	Live presentation Ontimics your DCS implementation with PlantPAV F.O.
	Live presentation Optimise your DCS implementation with PlantPAx 5.0  PlantPAx 5.0 driving customer specifications to realise significant benefits on capex & opex
	<b>Live presentation on P-Controller benefits for your next project</b> 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
vent end time: 13:00	Appetisers for labs followed by end of session









Event start time: 9:00 (CET)	vent start time: 9:00 (CET) What's new in Process - refresh		
	Preparation		
	INSTRUCTOR LED SOFTWARE LABS		
	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		
Event end time: 12:00	End of session		



# WEEK 9-10: SOFTWARE/ IIOT





Event start time: 9:00 (CET) Introduction to the Information Solution portfolio			
	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		
	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		
	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		
Event end time: 13:00	Appetisers for labs followed by end of session		



# WEEK 9-10: SOFTWARE/ IIOT





Event start time: 9:00 (CET) What's new - refresh			
	Preparation		
	INSTRUCTOR LED SOFTWARE LABS		
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 Fa Edge in operationalizing your machine learning models and performing complex calculations, as close to the control system 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 eq fundamental in achieving efficient, world-class operations. In this lab, you will learn about the various techniques used to n			
	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		
Event end time: 12:00	End of session		





### **TECHED TUESDAYS TIMINGS**

TechEd Tuesdays will be run three times across 2021 and 2022 meaning if your customers are unable to attend our first cycle, there is still an opportunity for them to be a part of this learning experience. The first cycle will begin on 14 September 2021 with registration for places now available. Future cycles will take place in 2022 in February and May.

CYCLE	REGISTRATION OPENS	START DATE	END DATE
1	AUG 16 2021	SEPT 14 2021	NOV 23 2021
2	NOV 1 2021	FEB 01 2022	APR 05 2022
3	MAR 1 2021	MAY 10 2022	JUL 12 2022

Customer and partners can register for TechEd Tuesdays here.





# TRAINING EXPERIENCE

