Maybe you have even visited Siemens SEWC digital factory in Chengdu, amazed at the perfect fit between virtuality and reality; Maybe you have been confused with frequent reworks of physical prototype, resulting in expensive costs of materials and manpower, even delay the time from design to delivery. Siemens PLM NX MCD, Mechatronic Concept Designer, is right choice for virtual commissioning with digital prototype. It is come true to fast evaluate the problems in virtual environment and reduce obviously the physical prototype.

This course will introduce Siemens PLM NX MCD (Mechatronic Concept Designer) and virtual prototype commissioning using Hardware-in-Loop. Through the case study, learn how to define mechanism motions in MCD, how to output the kinematic sequences to PLC Open, how to create the PLC/CNC connections and map the signals, virtual commissioning, and modification of models and PLC/CNC programs. This course is aimed at shortening the product design period and reducing the design costs.

Course Content:
- MCD Overview: Functionalities and Value
- MCD Kinematic Model
- Data Interworking between MCD and PLC/CNC
- Case Practice

Course Registration Information
Course Code: F4001
Course Name: Digital Prototype and Virtual Commissioning
Course Length: 2 Days
Course Price: 3600 RMB (incl. VAT)
Target Group: Design Personnel, Automation Personnel, Commissioning Personnel
Requisite Knowledge: CAD basics, PLC basics
Training Time: 2017.03.02 - 03.03; 2017.09.28 - 09.29
Training Place: Shanghai

For more details 
Please visit http://www.siemens.com.cn/sitrain
Contact our training consultants in your region

Siemens Industry Technical Training Center
5F, Yi De Building, 1538 Yan An Xi Road, Shanghai 200052
Tel: 021-62815933
Email: slc.training@siemens.com
Fax: 021-62810713
TIA Portal is the totally integrated automation engineering platform, it is also the automation gateway to digital enterprise, which is integrated with industry 4.0 new features, for example, the collaboration work with PLM, MES, and Industry Cloud MindSphere; Energy Management, Automated Engineering and so on. TIA Portal is important part of digital factory, meanwhile is also the steppingstone to digital factory for traditional enterprises.

This course will base on industry 4.0 new features of TIA Portal V14, and focus on the connectivity to Tecnomatix for virtual commissioning, the connectivity to MES for production data, energy suite, automated engineering etc.. After the training, the attendees are able to understand and experience the digitalization as automation role; Furthermore they get the basic knowledge about the data interfaces to upper level IT system.

**Contents**:

Day 1  Overview
- TIA Portal V14 Operations
- S7-1500 and WinCC OPC Configuration and Commissioning

Day 2  Tecnomatix Process Simulate Operation

Day 3  Tecnomatix Process Simulate and PLCSIM Connection
- Casestudy: Flexible Manufacturing Cell (FMC)

Day 4  MES Connectivity and Production Data

Day 5  Visualization Architect (SiVArc)
- Energy Monitoring and Analysis

**Course Registration**

Course Code : F4002
Course Name : Digitalization Solutions based on TIA Portal
Course Length : 5 days
Course Price : 7500 RMB /person (incl. VAT)
Target Group : Automation Engineer, Software Engineer with basic automation background
Prequisite Knowledge : IT basics, PLC basics
Training Place : Siemens Industry Technical Training Center
Training Time : Refer to <Siemens Trainign Plan> or SITRAIN Website
Registration : Attached <Siemens Training Application Form>, or Booking in SITRAIN Website
From Planning to Execution: The digitalization excursion of a PC mouse

In recent 15 years, SIEMENS has developed plenty of softwares which could provide customers a holistic automation solution to meet their requirements of digital factory, and that is Digital Enterprise Software Suite. By using SIEMENS softwares, every part of product life cycle can be linked easily, such as: PLM can help to design and optimize products in a total virtual environment. As for the real world, TIA, which has been widely and reliably used for more than 20 years, can ensure a highly efficient connectivity throughout all the parts of automation system.

This course elaborates the concept of SIEMENS digitalization. Through a real case (PC mouse production), participants will have an opportunity to go through the related episodes of product lifetime management, such as Product Design, Production Planning, Production Engineering and Production Execution, thus a detailed cognition and perception of SIEMENS digitalization will be available. Different from a general speech, this course contains well-designed exercises, a background story and a real project, which of-course help participants to get a deeper understanding and a real experience about SIEMENS digital twin.

This course involves these software: Tecnomatix Process Designer, Tecnomatix Plant Simulation, Tecnomatix Process Simulate, TIA Portal V14, Industrial Data Bridge.

**Agenda:**

**Day1**
- SIEMENS digitalization
- Define operations
- Import a product model
- Design MBOM, BOP and resource
- Create model of production line
- Simulate operations

**Day2**
- PLC code
- Configure HMI
- Virtual commissioning
- Plant simulation
- Connect between PLC&MES

**Course application:**

Course code : F4003

Course name : From Planning to Execution: The digitalization excursion of a PC mouse

Length : 2 Days

Price : 3000 RMB/Participant (Incl. VAT)

Participants : Planning persons; Process engineers; Manufacturing engineers, Automation Engineers

Pre-requisites : Basic knowledge of automation and process planning

Schedule : Shanghai 2017.06.27 – 06.28; Beijing 2017.08.01 – 08.02;
- Wuhan 2017.08.22 – 08.23;
- Guangzhou 2017.09.26 – 09.27;
- Chongqing 2017.10.24 – 10.25; Shenyang 2017.11.28 – 11.29;

Application : through <Course application form>, or visit our website: siemens.com.cn/sitrain

Any question : contact our training consultants (found in our website)

More information

Please visit our website
http://www.siemens.com.cn/sitrain

or contact our training consultants

Shanghai Tel: 021-6281 5933 Fax: 021-6281 0713

Guangzhou Tel: 020-3718 2012 Fax:020-3810 2557

Shenyang Tel:024-8251 8220 Fax:024-2294 9881

Beijing Tel: 010-6476 8958 Fax: 010-8476 3932

Wuhan Tel:027-8773 6238 Fax:027-8773 6269

Chongqing Tel:023-6381 8887 Fax:023-6381 8896
# Application for Industry Technology Training

## Customer Information  
**Required**

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## Payment Transaction  
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## Application for the Course  
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Do you need us to help you arrange the accommodation?  
Payment:  
- [ ] TT  
- [ ] Cash  
- [ ] Other  
Date: |

### Note:

- Attention:  
  1. Please serious fill out the above information.  
  2. Please fill out it in Note or contact with the training consultant, if you have any special requirement.  
  3. Training Fees include training, training materials, practice on the equipments, stationery and work lunch.  
  4. The application will give effect as the training order, after the authorized signature.

### Issuer  
Authorized:  
Date:  

### The advice and requirement from the training consultant :  
Sign by the training consultant:  

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Please fax it to the training consultant in your located region.  
Region North (Beijing) : 010-84763932  
Region East (Shanghai) : 021-62810713  
Region Central (Wuhan) : 027-87736269  
Region South (Guangzhou) : 020-38102557  
Region Northeast (Shenyang) : 024-22949881  
Region Southwest (Chongqing) : 023-63818896