



Training course outline

ITU Centres of Excellence Network for Asia-Pacific
China Academy of Information and Communications Technology

Title	The development of Industrial Internet
Modality	Online through ITU Academy platform
Dates	13-25 June 2022
Duration	2 weeks
Registration deadline	12 June 2022
Training fees	Free
Description	This course will help the participants to build the general knowledge of industrial internet, including the overview development, field network connections for industrial internet, typical industrial internet platforms, industrial internet identifier system and its standards progress, and the security issues as well.
Code	22OI27816ASP-E

1.LEARNING OBJECTIVES

- To build knowledge of participants on the general development of industrial internet and its contribution to social and economy development
- To build knowledge of participants on the field network connections for industrial internet and the industrial internet identifier system.
- To know about the typical industrial internet platforms provided by Chinese companies
- To know about the security issues relating to industrial internet, including security technologies, framework and implementations.

2. LEARNING OUTCOMES

The course is expected to achieve the following outcomes:

- Know about the overall development of industrial internet and its contribution to social and economy development
- Build knowledge about key technology related to industrial internet and the industrial internet identifier system
- Build knowledge about the security issues of industrial internet



- Acquire knowledge on the industrial internet platforms in China ; and
- Increase the opportunities for international cooperation.

3.TARGET POPULATION

The course is targeted ICT professionals and engineers, decision makers, managers, equipment suppliers and operators interested in learning about industrial internet and its key technologies. Other institutions and individuals that are seeking to understand the industrial internet platforms, identifier systems are also welcome to participate.

4.ENTRY REQUIREMENTS

The participants are expected to have basic knowledge of ICT.

5.TUTORS/INSTRUCTORS

Experts from CAICT

6.TRAINING COURSE CONTENTS

1.Overview on Industrial Internet

- Industrial Internet is an important path and methodology of digital transformation
- The global industrial Internet is in a period of rapid expansion
- Industrial Internet Functional Architecture: Three Core Functions
- Implementation Framework of Industrial Internet
- The Technical Atlas of the Industrial Internet
- Typical application scenarios of "5G+ Industrial Internet"

2.Field Network Connections for Industrial Internet

- Wired connections in industrial environment
- Introduction of Private 5G Network in industries

3.Exploration and Practice of China's Industrial Internet Platform

- The development status of Industrial Internet Platform globally and in China
- The main technologies used in the Industrial Internet platform
- Platform applications

4.Development of Industrial Internet Security Technology

- Industrial Internet Security Analysis
- Analysis of Industrial Internet security technologies
- Development trends and suggestions of Industrial Internet security technologies

5.Industrial Internet Security——Framework & Implementation

- Industrial Internet Security Framework
- Implementation of Industrial Internet Security Protection Measures
- Industrial Internet Equipment Security

6.Introduction of Industrial Internet Identifier

- Overview of Identifier
- Development of International Identifier System
- Exploration of Identifier and Industrial Internet
- Identifier Resolution System in China
- Application Cases of Identifier Resolution

7. ISO standards in Industrial Internet



7. TRAINING COURSE SCHEDULE

Week / Session	Topic	Exercises and interactions
Week 1	The overall development of industrial internet and network connection and platform issues	The participants are required to review and learn the course materials by themselves. Quiz will be provided to evaluate the learning effects of participants, and tutors will be online to respond to any questions raised by participants.
Week 2	The main security technology of industrial internet and its framework and implementation; as well as the industrial internet identifier system	The participants are required to review and learn the course materials by themselves. Quiz will be provided to evaluate the learning effects of participants, and tutors will be online to respond to any questions raised by participants.

8. METHODOLOGY (Didactic approach)

Course Materials: The relevant course material will be made available on the website, which will include presentations, practical cases introduction, etc.

Online Discussion Forums: Participants are expected to participate actively in discussion forums on selected topics throughout the week.

Chat Sessions: Online chat sessions with the Tutor will take place on Wednesday from 14:00 – 15:00 Hrs. Beijing Time (GMT +8). All participants are expected to join the chat sessions to interact with tutors.

Quizzes: **2 mandatory online quizzes** will be held at the end of each week of the course

Assignment: There will be a **mandatory assignment** for the course

9. EVALUATION AND GRADING

Besides the tests and their assignment score, participants will be evaluated according to their substantive posts on the discussion forum and other course activities, reflecting both the quantity and quality of time spent on the course. The evaluation details and criteria for certificates is as follows.

Quiz1:	30%
Quiz2	30%
Individual Assignment	30%
Discussion Forum	10%
Total Evaluation:	100%

IMPORTANT: A PASSING MARK OF 60% IS REQUIRED FOR OBTAINING A COMPLETION CERTIFICATE.



10. TRAINING COURSE COORDINATION

Course coordinator: Name: WANG Ying Email address: wangying@caict.ac.cn	ITU coordinator: Name: Sean Sharidz Doral Email address: sean.doral@itu.int
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