TEPC08 : Certified Internet of Things Specialist (CIoTs) (อบรมเชิงปฏิบัติการพร้อมสอบประกาศนียบัตรในระดับสากล)

Description :

Program Certified by iTrain Asia Pte Ltd

หลักสูตรนี้จะช่วยให้คุณเข้าใจถึง**ความสำคัญและผลกระทบของ IoTs ที่มีต่อประชากร สังคม** รวมไปถึงในแง่**เศรษฐกิจ**โลก โดยมีการยกตัวอย่าง IoTs ที่มีอยู่ในตลาด เพื่อให้ผู้เรียนเห็นภาพและมีความเข้าใจถึง Concept ของ IoTs ในแง่มุมต่างๆ

เมื่อผู้เรียนได้ผ่านการเรียน และทดสอบความรู้และความสามารถตามกำหนดเกณฑ์ของหลักสูตร จะได้รับ E-Certificate และ Digital Badge ในระดับสากล

Instructor :
Ir. Dr.Mohamad Hafizal
Dr.Ramli Nordin

Training Date : **22-24 April 2024**
fee : **32,000 ฿** (ราคายังไม่รวม Vat 7%)
Days & Duration : **3 Day(s) | 18 Hour(s)**
Time : **09:00:00 - 16:00:00**
Language : **English**
Venue : **Online by Zoom**
Type : **Online**
Category : **Professional Certification Program**

Objectives :

Course Overview:

This course will help you gain adequate knowledge on IoTs. You will be able to understand the potential of IoTs for our society, in terms of impact on the lives of billions of people and on the world economy. You will also understand the underlying technology that powers IoTs, as well as the challenges that comes with such technologies. We will explore many real-life examples of IoT devices that are commercially available, and you will have a glimpse of the future of IoTs.

Course Objectives:

- Introduction and description of core concepts of IoT, role and scope of smart sensors for insuring convergence of technologies and multidisciplinary engineering practices, wireless sensor networks, machine learning/data analytics and cloud computing
- Understand the IoT Open innovation platform and hardware platforms and operating systems commonly used in IoT systems.
- Big data predictive analytics and transformation from IT to IoT
- Awareness of IoT security and opportunities

Target Group :

Prerequisites:

- Preferably minimum 2 years of experience in software development, business domain or data/business analysis. However, if you do not have any of the following experiences, you can still consider taking up the course.

Who Should Attend:

- Highly applicable for: IT/IS Executives & Managers, Project Managers, Technology Planners, Consultants & System Integrators, IT Technical, Services Specialists, IT Architects, Business Process Owners, Risk Management Employees, Cloud Operations Engineers, Senior Cloud Operations Engineers, Business/Data, Analysts, Operations Research Analysts.

EXAMINATION:

- No. of Questions: 30 Questions
- Duration - 1 hour
- Exam Type - Multiple Choice Questions (MCQ)
- Compulsory Passing Rate - 70%

Benefits :

Learning Outcomes:

Upon completion of this course, you will be able to:

- Explain what is the Internet of Things
- Understand how IoT devices interact together and with users
- Learn about the protocols used by IoT devices
- Discover the different platforms that are available to develop applications
- Learn about commercially available devices that are already using the Internet of Things
- Understand the current challenges of the Internet of Things
- Understand Visual Analytics, and predictive analytics with IoT

Course Outline :

DAY 1: IoT Fundamental and Ecosystem

Introduction to IoT

- What is IoT - In-depth explanation
- IoT Applications in different domain
- How large is the IoT Market in different domains?

IoT Architecture

- Architecture
- Tech Stack
- Protocols

Sensors

- What is Sensor & Actuator?
- What is good sensor?
- Sensor properties
- Types of sensors
- Sensor Demo - Proximity and IR sensors

IoT World

- Latest updates in the IoT industry
- Available IoT alliances details and the standards that are getting evolved
- Multiple IoT applications and solutions available in market
- Multiple IoT platform (hardware) example ARM Mbed, Intel, Free scale etc., comparison and usage
- Multiple IoT software and cloud platform, Components of a Platform, Usage, comparison. IoT ecosystems build around these platforms. OSMOSIS platform and our experience about IoT platform building
- Details about your OSMOSIS IoT platform

Communication

- Latest updates in the IoT industry
- Available IoT alliances details and the standards that are getting evolved
- Multiple IoT applications and solutions available in market
- Multiple IoT platform (hardware) example ARM Mbed, Intel, Free scale etc., comparison and usage
- Multiple IoT software and cloud platform, Components of a Platform, Usage, Comparison. IoT eco systems build around these platforms.
- Mi-MIST IoT Platform and our experience with IoT platform building
- Details about your Mi-MIST IoT Platform

End2End Cold Chain IoT Middleware Demo – Mi-MIST IoT Platform

DAY 2: Part II: IoT Cloud and Analytics

Cloud Computing

- What is cloud?
- What is cloud computing?
- Benefits of cloud
- History of cloud computing
- Deployment Models
- Top cloud providers
- Service Models
- Service Catalogue
- Different Services from Amazon
- Advantages for different offerings
- Our learning in selecting the right service provider

Cloud Computing & Data Analysis à Web services

- What are Web Services?
- Why Web Services
- Types of Web Services
- RESTful web services
- Design Principles

Introduction to Big Data & Big Data Technologies & Stream Processing

- Cloud data storage
- Introduction to Big Data
- Big Data Definition and;

Characteristics

- Who is Generating BigData
- BigData Analytics
- Why BigData Analytics
- Applications of BigData Analytics
- Different Data Stores
- BigData Technologies - CouchDB,
- MongoDB, Node4J
- Visual Analytics, predictive analytics
- Analytics
- What is Visual Analytics?
- Visual Analytic Tools for Big Data
- Predictive Analytics.
- Predictive tools for Big Data.

DAY 3: Part III: IoT Security and Opportunities

Design considerations and IoT Security

- How IoT Platform provides security assurance?
- Experience from Mi-MIST IoT platform security features
- How secure is IoT?
- Vulnerabilities
- Key aspects for Securing IoT solutions

Build IoT Solutions For Home Automation and Logistics

- Solve Real Live use cases of Home Automation & Logistics
- Build solution for both Hardware and Software
- Use cases: Fleet management solution, Surveillance solution

IoT Opportunities

- Brainstorming on opportunities and how they can be realized

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Payment Condition :

Payment can be made by:

1. **Cash or Credit Card or Bank Cheque payable to**
   สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ or National Science and Technology Development Agency
   (a post-dated cheque is not accepted) on the first day of the service or within the last day of the service.

2. **Account transfer and send the proof of the payment** (the deposit slip) via email ttd@swpark.or.th

   - **ธนาคารกรุงเทพ** สาขาอุทยานวิทยาศาสตร์
     Saving Account Number: **080-0-00001-0**
     Account Name: **สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ**

   - **ธนาคารกรุงไทย** สาขาตลาดไท
     Saving Account Number: **152-1-32668-1**
     Account Name: **สำนักงานพัฒนาวิทยาศาสตร์และเทคโนโลยีแห่งชาติ**

Notes:

- Withholding tax (3%) is exempt.
- Should you need to withdraw, you must send the notice of the withdrawal in writing no later than 7 working days before the commencement date. The cancellation less than 7 days will be subject to a fine of 40% of the fee.
- Software Park Thailand reserves the rights to cancel courses due to unforeseen circumstances.

Contact Person :

For more information, contact our course coordinator on:

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You are encouraged to use the course schedule as a guide to plan your training. The schedule is accessible at www.swpark.or.th for more information.