Big Data Analytics: Essentials for Smart City

FUTURESKILLS

CONNECTION TECHNOLOGY 裝備未來

TechEd

This essential **Big Data Analytics** course allows participants to learn and apply Business Intelligence Analysis in Smart City.

Participants will get to understand Big Data concepts and the use of Big Data Map Reduce Techniques which can help on efficient information dissemination.

They will also learn about the practical use of Analytics on Large-Scale Document Management System, Monitoring IoT Devices, Smart Meter and Smart Drainage to enhance their project management skills for Smart City.

Programme code	10012950
Duration and time	2 days 9:30-17:00
Venue	1/F, HKPC Building, 78 Tat Chee Avenue, Kowloon Tong
Medium	Cantonese, supplemented with English terminology
Course fee	HK$4,800

Trainer Information

Alan LEE, held a senior management role in the technology division of an investment bank, overseeing the corporate strategy, product development and production management for more than 14 years. With extensive IT background, Mr Lee possesses practical project experience on sophisticated analytics and large-scale global technology project management. He also has rich training experience in the design and delivery of Big Data Analytics, Fintech and Blockchain technologies and applications.

Enrolment Methods

1. Scan the QR code to complete the enrolment and payment online OR
2. Mail the crossed cheque with payee name "Hong Kong Productivity Council" (in HK dollar) to HKPC Academy, Hong Kong Productivity Council, 3/F, HKPC Building, 78 Tat Chee Avenue, Kowloon (attention to Mr Desmond CHAN). Please indicate the course name and course code on the envelope.

Enrolment Link

Supporting Organisations (In arbitrary order)

50th Anniversary 1970-2020 HKCS HONG KONG COMPUTER SOCIETY 香港電腦學會

WTIA 20 Anniversary 香港無線科技商會

Hong Kong Software Industry Association 香港軟件行業協會

Course Outline

Introduction to Big Data Analytics

- What is Big Data?
- What is Big Data Analytics?
- Trends and History
- Business Driver and Motivation

Project Management

- Project Management Process
- Typical Architecture of Big Data Analytics
- Deployment Concerns and Consideration
- Project Management checklist

Big Data Basics

- High-Level Architecture of Hadoop
- Introduction to Big Data HDFS
- Basic Building Blocks of Big Data Computation
- Installation of Hadoop
- Basic Hadoop Administration
- Distributed Computations on Hadoop
- What is Map-Reduce?
- Map-Reduce Example-Simple Counting Examples

Case Study: Analytics on Large-scale Document Management System

- Document Management System
- Practical Exercise
- Practical Project Planning

Case Study: Storage and Searching of Public Image/Video

- Storage of Unstructured Data
- Big Data Storage
- Big Data Image Retrieval
- Big Data Video Retrieval

Case Study: Internet Of Things Devices Monitoring Analytics

- Device Log Monitoring
- Machine Log Management System
- Abnormality analytics
- Practical Exercise
- Practical Project Planning

Big Data Analytics on Smart City Application

- What is Smart City?
- Examples of Analytics in Smart-City

Business Intelligence

- What is Business Intelligence?
- Basic Use of BI Tools
- Case Study Examples
- Connecting BI with Big Data Architecture

Basic Machine Learning Algorithms

- Basic Running of Machine Learning Algorithms
- Statistical Techniques: Clustering
- Practical Examples of Clustering Examples
- Statistical Techniques: Classifier
- Practical Examples of Classifiers Examples

Case Study: Analytics and Cloud Integration

- Public Cloud in Smart City
- Interoperability with different public clouds

Case Study: Smart Meter and Smart Drainage Analytics

- Energy Optimization
- Monitoring and Alert
- Practical Exercise
- Practical Project Planning

Award of Certificate of Accomplishment

Certificate of Accomplishment issued by the Hong Kong Productivity Council will be awarded to participants who are in full attendance.

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Inquiry Mr CHAN | +852 2788 5800| ecinfo@hkpc.org