Big Data Analytics and Internet of Things:
Increasing Productivity in the New Digital Era

Are you ready yourselves with industrial revolution 4.0?
Do you know the opportunity you have with big data analytics and the internet of things?
Do you want to increase productivity through big data analytics and the internet of things?

Introduction

There are five axes of new digital technology forces that are changing the world order today in digital adoption. These forces are abbreviated as SMACI (Acronym for Social, Mobile, Analytics, Cloud and Internet of Things (IoT). These forces have brought the digital disruption in the lifestyle of an individual and the sea change in the strategy of the new-age enterprise). Business must continuously adapt to new digital technology for improving the three vital key performance indicators, i.e. Revenue enhancement, Cost Reduction and Customer Experience. IoT has brought digital experience to a whole new level. When integrated with Big data analytics, it empowers the organisation to disrupt markets or be competitive, reduce the cost of operation and increase the wallet share of customers. Today we talk about Industry 4.0 where machines are getting intelligent. The machines are talking, the barriers between machine and human communications are breaking through innovative technology applications. IoT has widened the innovation landscape in technology. These innovations are in every spare of life, whether it is lifestyle products, business operations performance or governance. You can think of a smart car, smart city, smart grid, smart building, smart home, smart lifestyle, etc., limited by your imagination. The marriage of information technology and operational technology has made it possible. All those digital technologies are working in cohesion to make the internet of things a reality of life. The single most driver for IoT adoption is innovation in communication technology that is the backbone of the IoT revolution. As data from sensors and SCADA systems are carried to cloud servers from remote locations, these data are highly unstructured. The volume and velocity of such data are too huge, and the time needed to analyse is very short. Hence comes the stream of Big data analytics in IoT. Big data analytics and IoT courses will inspire you to explore your mind to an unbounded thought process of possibilities. Your thought will be the only limiting force when you start unveiling the potential. You would be learning the IoT from its origination perspective, how the industry is approaching it, what are the challenges, how unstructured data in real-time is analysed, what insight it can give. It will also provide the tool, technology and platform available for experimentation. You will be challenged to get yourself working as a team player because independently nobody can excel in this field, together a group can. The technology domain will discuss the working expertise you need for finding a place in the IoT and big data analytics value chain. The course is accompanied by the industry use case, quiz and assignment to evaluate the progress. We wish you a happy journey for the "Big Data And IOT" course.

Program Objectives

This training aims to:

- Understand the evolution of big data and how it is impacting to our daily lives
- Learn to grow and manage data in your industry
- Understand how IoT influence the data collection, management and predictive analysis within an ecosystem
- Learn the big data analytics in industries
- Understand the challenges and shortfalls of data within an ecosystem

Learning Outcomes

After completing this training, participants should be able to:

- Figure out What is the Internet of Things, also called IoT? Get to know the ecosystem of IoT, Historical perspective, Industrial automation technology fused into information technology.
- Figure out How big data is creating a great opportunity in the IoT domain for aspiring big data analytics enthusiasts. Learn the steps to define the cognitive problem statement and then turn to solutions.
- Start thinking rationally on IOT application with intelligence built into it
- Decide which sub-domain of IOT you want to excel?
- Think before you jump over the implementation of your next big idea in the IoT domain.

Who should attend?

Anyone who wants to build a career in IoT and Big data analytics, anyone who wants to understand the future of IoT and application of big data analytics in the IOT domain

Methodology

Interactive lecture, videos, presentation, discussion, case study, case simulation, Socratic questioning, flipped classroom, brain-storming, worksheet, problem solving, inductive method, team exercise, peer to peer, action learning, coaching and mentoring

Program Outline

Time	Day One
9.00am– 10.30am	**Evolution of IoT** The internet of things has certainly come a long way since Kevin Ashton coined the term way back in 1999. You will learn how the players in the industries use IoT to harness the power of unprecedented business opportunities.
10.30am-11.00am	**Break and Networking**
11.00am-1.00pm	**IoT at the Closer Look** This module starts with the introduction of IoT, history and prediction for IoT, IoT EcoSystem and advantages associated with IoTs
1.00pm-2.00pm	**Lunch Break and Networking**
2.00pm-3.30pm	**Brief Introduction of Big Data** This module will explain to you about the evolution of Big Data. You will also learn how to grow and manage a subscriber database.
3.30pm-4.00pm	**Break and Networking**
4.00pm-5.00pm	**Industry Gain from IoT** This module will look at how industrial players embrace the Industrial Internet of Things. Business leaders must consider how their company might offer their data to an ecosystem of partners to gain the most value or incorporate third-party data to enhance their services. The participants would learn how to blend Big Data Analytics and IoT

Time	Day Two
9.00am– 10.30am	**Industry Approach to Big Data Analytics in IoT** IoT big data analytics can be defined as the steps in which a variety of IoT data are examined to reveal trends, unseen patterns, hidden correlations, and new information. Companies and individuals can benefit from analysing large amounts of data and managing huge amounts of information that can affect businesses. This module focused on the topic **includes** Big Data Analytics in IoT, How IoT feeds to Big Data Analytics and Merger of Industry
10.30am-11.00am	**Break and Networking**
11.00am-1.00pm	**Barriers in Adoption of Big Data Analytics in IoT** The IoT will massively increase the amount of data available for analysis by all manner of organisations. However, there are significant barriers to overcome before the potential benefits are fully realised. This module will cover this in-depth and look at how industries are taking steps to counter this. Hence, the participants would learn challenges Associated with IoT.
1.00pm-2.00pm	**Lunch Break and Networking**
2.00pm-3.30pm	**The Upcoming Opportunities** This module plans to exposure to you to the upcoming opportunities in Big Data Analytics and IoT.
3.30pm-4.00pm	**Tea Break**
4.00pm-5.00pm	**Looking Forward** In this module, the participants would look at the Promising opportunities and the usage of Big Data in IoT.