BIG DATA ANALYTICS & STRATEGY

With the increased production of data and the storage and availability of digital data, organizations have become more of a data business. By “data business”, organizations can make use of the data it has stored to make better decisions and improve its operations, or it can turn data into its additional business by monetizing the data it has. Big Data Analytics is no longer a “good to have” feature in any organization’s suite of functions, it has become a “must have” activity. The key question has become "How could organizations turn Big Data Analytics into common practices?". Focused on the understanding of Big Data Analytics, this course explores how organizations could use their well-captured big data to strategize and reshape their organizations for greater benefits, productivity and effectiveness.
Learning Objectives and Outcomes
Course will enable participants to:
1. Understand what big data is and how Big Data Analytics can help organizations achieve a competitive advantage.
2. Appreciate the benefits and insights that Big Data Analytics bring to the organizations.
3. Learn how to make strategic use of the data available in organizations.
4. Learn how to use data to improve business decisions and operations.
5. Learn how to monetize data to increase the organization’s revenue.

Teaching Methodology
This course will be complemented with case studies and market research.

Course Contents
Data business
• The growth of Big data and the Internet of Things
• Data-driven organization

Strategic data needs
• Using data to improve decision making
• Using data to drive operational improvement
• Using data as business asset
• Making a business case for data

Turning data into insights
• What is data analytics?
• Different types of data analytics
• Advanced analytics: machine learning and deep learning and cognitive computing
• Combining analytics for maximum success

Using data to improve decision making
• Key business questions
• Visualizing and communicating insights from data

Using data to improve operations
• Optimizing operational processes with data
• Use data to enhance business processes
• Use data to enhance sales and marketing processes
• Use data to improve manufacturing process
Using data as business asset
- Increasing the value of your organization
- The value lies in a company’s ability to work with data
- Selling data to customers or interested parties
- Understanding the value of user-generated data

Sourcing and collecting data
- Understanding the different types of data
- New types of data
- Gathering internal data
- Accessing external data
- When the data you want does not exist

Executing data strategy
- Putting data strategy into practice
- Creating a data culture

Recommended Participants
- C-level executives
Faculty Profile

Assoc Prof Danny Poo is a Specialist in Big Data Analytics, Health Informatics, Software Engineering and Information Management.

Assoc Prof Poo has more than 30 years' experience in Software Engineering and has become passionate in Health Informatics and Big Data Analytics over the last 10 years. He is the founding director of the Centre for Health Informatics at the National University of Singapore. The Centre is the lead provider of human capital in Health Informatics and Analytics.

Assoc Prof Poo serves in the Steering Committee of the Asia Pacific Software Engineering Conference (APSEC) since 1994 and was the Vice-Chairman of the APSEC Steering Committee from 2003 to 2005. He was also the Chairman of the Organizing Committee of two highly successful International Conference on Big Data and Analytics in Healthcare in 2013 and 2014.

Assoc Prof Poo is currently with the National University of Singapore. His research area includes Big Data Analytics, Health Informatics, Software Engineering and Information Management.

Assoc Prof Poo received his Doctor of Philosophy, Master of Science and Bachelor of Science (Honours) in Computation from the University of Manchester.