**Big Data and Cyber Physical Systems**

**Synopsis**

The emergence of cyber physical systems (CPS) in the last decade has accelerated the generation and applications of big data. In this talk, we shall examine how CPS will change the way we live which, in turn, will reveal the types of big data applications that will create the most impact. In particular, we outline three key events that have led to most of the major developments in industry and CPS today. Some challenges and directions for future research and translational effort are then discussed.

**Biography**

Dr Loon Ching TANG is *currently* the Director of Temasek Defence Systems Institute and a professor of Department of Industrial Systems Engineering & Management at the National University of Singapore. He obtained his Ph.D degree from Cornell University in the field of Operations Research in 1992 and has published extensively in areas related to industrial engineering and operations research. He has been presented with a number of best paper awards including the IIE Transactions 2010 Best Application Paper Award and 2012 R.A. Evans/P.K. McElroy Award for the best paper at Annual RAMS. Prof Tang is the main author of the award-winning book: *Six Sigma: Advanced Tools for Black Belts and Master Black Belts.* Besides being active in the forefront of academic research, in the last 25 years, Prof Tang has served as a consultant for many organizations, such as the Ministry of Home Affair, Singapore Power Grid, Republic of Singapore Air Force, Seagate, HP, Phillips, etc, on a wide range of projects aiming at improving organizational and operations efficiency; especially through better management of engineering assets. He is currently a fellow of ISEAM, the Co-Editor-in-Chief of *Quality & Reliability Engineering International,* editorial review board member of Journal of Quality Technology and a member of the advisory board of the Singapore Innovation and Productivity Institute.