

Centre for System Intelligence and Efficiency Seminar

Digital twins for Asset Management

Chaired by A/P Xu Yan

(Technically co-sponsored by the IEEE PES Singapore Chapter)



Prof Ajith Parlikad

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Distributed Information and
Automation Laboratory (DIAL)
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Date: 9th Jan 2023 (Monday)

Time: 1:30 pm – 2:30 pm

**Venue: [School of EEE](#)
[Executive Seminar Room](#)
[\(S2.2-B2-53\) \(Map\)](#)**

Abstract:

We are living in a digital era. It is evident that the practice of maintenance and asset management has the potential to be one of the biggest beneficiaries of this digital revolution. Concepts such as Industrial Internet of Things, Cyber Physical Systems and Digital Twins are now seen as major opportunities for companies in the manufacturing and infrastructure sectors to improve their products, processes and services. The linkage between the real world and the virtual world enabled by these emerging technologies - supported by new data analytics and innovative machine learning techniques - allow optimised maintenance of industrial systems. This session will explore this opportunity by focussing on our latest research on data-driven prognostics of asset failures, predictive maintenance, and asset fleet optimisation using Digital Twins.

Speaker:

Ajith Parlikad is Professor of Asset Management at Cambridge University Engineering Department. He leads a research team focused on examining how data and digital technologies can be exploited to improve resilience of complex industrial and infrastructure systems. His research has been funded by the EPSRC, Innovate UK, EU and Industry. Prof Parlikad is the Scientific Secretary of the IFAC Working Group on Advanced Maintenance Engineering, Services and Technology and sits on the editorial board of Reliability Engineering and System Safety. He has published over 200 scientific journal and conference papers and has held over £7million in research grants.