



Harnessing the power of 5G, Edge Computing and AI/ML for Industry 4.0

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Wednesday, June 29, 2022
9:30 AM ET • [Zoom](#)

Abstract

Mallik will begin this session with an overview of mobile networking from 1st generation to 5th generation (5G). He'll then present 5G network architecture and discuss how SDN/NFV, AI/ML and edge computing/cloud are being applied in 5G to address ultra-low latency Industry 4.0 applications. He'll also discuss future research challenges at the intersection of "5G, edge computing and AI/ML" for realizing distributed multi-cloud for low-latency Industrial 4.0 applications and conclude with an introduction of 6G and possible research opportunities over the next decade.

Bio

As a CTO of Ericsson based in Silicon Valley, Dr Mallik leads evolution of Ericsson's technology & champion the company's next phase of innovation and growth. Prior to Ericsson, he held several leadership positions at F5, Juniper, Cisco, Motorola, Nortel & IIT (Chennai). During 30 years of his professional career, he has played a unique leadership role in delivering industry's most powerful innovations, standards contributions, products/solutions working with global telecom operators, and also innovating for the future, working with academia, by anticipating what might happen next, to accelerate the architectural transitions in the telecom industry from 2G to 5G and beyond.

He is a Fellow of Canadian Academy of Engineering (CAE) and The Institution of Engineering and Technology (IET, UK). He received several awards including: "UC Berkeley's Garwood Center for Corporate Innovation Award," "CTO/Technologist of the year" award (sponsored by NTT) by World Communications Awards (WCA), "IEEE Communications Society (ComSoc) Distinguished Industry Leader Award," "CTO of the year (2021) award from Silicon Valley Business Journal (SVBJ)", and also "IET Achievement medal", in recognition to his contributions to the communications and networking fields. He has been inducted into IPv6 Hall of Fame by IPv6 Forum for his early contributions to IPv6 in scaling networks to support billions of devices and internet of things. He is a Honorary Professor at the Univ of Glasgow and a Visiting Professor at King's College London, where world's 1st 5G network was demonstrated together with Ericsson and Vodafone. He has Ph.D. in Information & Communications Engineering from Univ. of Tokyo, Japan, Master's in Communication Systems from Indian Institute of Technology, Chennai, Bachelor's in Electronics & Communications Engineering from NIT, Warangal, India. He mentored over 100 students, delivered 400+ keynote/invited talks/lectures, co-authored 2 books, 100+ publications/ patents, served on 40+ IEEE conferences committees.

Host

Professors David Janes (janes@purdue.edu) and Tillmann Kubis (tkubis@purdue.edu)

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