**ABSTRACT:** The next chapter in industrial automation and robotics will be written by the increasing development of autonomous systems – systems that can change their behaviors in response to unanticipated events. Many of the ingredients required to achieve industrial autonomous systems are already available digitally today, via control systems, sensors, advanced control algorithms etc. The missing ingredient, which is the key enabling technology in the journey towards autonomy, is industrial artificial intelligence – a combined physics and data based approach. In addition to providing a brief survey of ABB research in the areas noted above, this seminar will highlight the opportunities and challenges that lie ahead on the road to truly autonomous systems. Finally, we will discuss the role of autonomous systems, and how they will deliver on the promise of significant productivity enhancements, amid the accelerating digitalization of today's industrial landscape.

**BIO:** Mr. Bazmi Husain is the Chief Technology Officer of the ABB Group. Prior to assuming this role in January 2016, Mr. Husain was ABB's Managing Director in India for four years and, before this, head of ABB's Global Smart Grid industry segment initiative. In this role, he was instrumental in pioneering agreements with partners such as General Motors and Deutsche Telekom, which have helped to make ABB a leading name in smart grid solutions. During his 30 years at ABB, Mr. Husain has also worked in various roles in research and development, service, strategy and business operations around the world. He has led the Global Research Center in Bangalore (ABB's largest R&D center worldwide), the Corporate Research Center in Sweden and the global Automation Technology Research team. Over a period of more than two decades, Mr. Husain shaped ABB into the largest automation solutions provider in India in his time.