Title: **Cyber Security challenges and opportunities for autonomous vehicles**

Speaker: **Dr. Ir. Neeli Prasad**

Abstract:

The Internet of Things (IoT) has gained a huge user base by facilitating Internet-connected devices being used in numerous applications including autonomous vehicular infrastructure. Autonomous vehicles (AV) can no longer be perceived as just mechanical systems, with over 100 million lines of code in the overall architecture. These vehicles are growing increasingly connected and computer-like, with capabilities to sync with mobile phones, provide vehicle occupants with the latest weather and navigation updates, and communicate safety information to other vehicles and surrounding infrastructure. Though autonomous vehicles are connected and computerized bringing evident advantages to the passenger experience and to road safety, there are security and privacy risks.

This talk will discuss the challenges and opportunities pertaining to security, trust and transportation policies that may arise as a result of emerging autonomous vehicle (AV) technologies. AV technologies can decrease the transportation cost and increase accessibility to low-income households and persons with mobility issues.

Short Bio:

Dr. Ir. Neeli Prasad, Chief Technology Officer of SmartAvatar B.V. and TrustedMobi, IEEE VTS Board of Governor Elected Member & Vice President Membership Development. Neeli is a cybersecurity, networking and Internet of Things (IoT) strategist. She has throughout her career been driving business and technology innovation, from incubation to prototyping to validation and is currently an entrepreneur in Silicon Valley. She has made her way up the "waves of secure communication technology" by contributing to the most groundbreaking and commercial inventions. She has general management, leadership and technology skills, having worked for service providers and technology companies in various key leadership roles. She is the advisory board member for the European Commission H2020 projects.

She is also a vice chair and patronage chair of IEEE Communication Society Globecom/ICC Management & Strategy Committee (COMSOC GIMS) and Chair of the Marketing, Strategy and

IEEE Staff Liaison Group. She is Director of CGC, USA and was assistant head of department and Professor, Electrical and Computer Engineering at International Technological University (ITU), USA.

Dr. Prasad has led global teams of researchers across multiple technical areas and projects in Japan, India, throughout Europe and USA. She has been involved in numerous research and development projects. She also led multiple EU projects such as Magnet, Magnet Beyond, CRUISE, LIFE 2.0, ASPIRE, BeTaaS, Futon, etc. as project coordinator and PI Thematic leader of CTIF and Associate Professor, Aalborg University, Denmark. She has played key roles from concept to implementation to standardization. Her strong commitment to operational excellence, innovative approach to business and technological problems and aptitude for partnering cross-functionally across the industry have reshaped and elevated her role as project coordinator making her a preferred partner in multinational and European Commission project consortiums.

She has 2 books on IoT and 2 books on WiFi, many book chapters, peer-reviewed international journal papers and over 200 international conference papers. She was IEEE Communication Society distinguished lecturer. Dr. Prasad received her master's degree in electrical and electronics engineering from Netherland's renowned Delft University of Technology, with a focus on personal mobile and radar communications. She was awarded her Ph.D. degree from Università di Roma "Tor Vergata", Italy, on Adaptive Security for Wireless Heterogeneous Networks.