



**Dr. Ayyagari** is currently a Professor of Instrumentation & Control Engineering Dept., and Dean, Academic affairs, National Institute of Technology, Tiruchirappalli, India. He obtained PhD from IIT Delhi in the year 2000 for his pioneering work on dynamic non-cooperative games and robust control for a class of nonlinear systems; this work addressed theoretical issues in deep neural networks and reinforcement learning in the framework of dynamic programming and game theory, more than a decade ahead of commercial availability of software packages and sundry applications. He has always been deeply interested in looking into computational problems that arise out of the algebra and graph theory in control theory and applications. Of particular interest are the NP-hard problems and the Randomized Algorithms. He has several significant papers in international conferences and journals. He was a visiting associate professor of the theoretical computer science group at the Institute of Mathematical Sciences, Chennai during 2001-04. He was a recipient of Government of India's Young Scientist award in 2005 for his funded project "Robust and Efficient Algorithms for Modern Control Systems." In the same year, he has also worked at National Chemical Laboratories at Pune (a constituent of Government of India's Central Scientific and Industrial Research (CSIR)), on "Density Functional Theory and Quantum Control of Systems," under the aegis of Indian Academy of Sciences. He was one among the first UKIERI recipients in 2007 and has successfully completed a collaborative project on unmanned air vehicles (UAVs) together with University of Leicester (UK), and IISc Bangalore (India).

With his vision for computing and algorithms for hard problems, he proposed in 2016 and got sanctioned in 2020 a 650 TF supercomputer for NIT Tiruchirappalli. This functions from the Computer Support Group (CSG) which he has headed for 5 years from 2015 – 20. He has scaled up the IT infrastructure of the institute to higher levels, and has also played a pivotal role in developing in-house processes for the online teaching-learning-evaluation during the Covid 2020 pandemic.

Currently his research and consultancy projects are a fine balance of theory and practice in the areas of Model Driven Engineering (funded by ABB), Traffic scheduling and decongestion of Indian road networks (funded by ITRA, Govt of India), Nonlinear control, and Fault-tolerant control (funded by DRDO, Govt of India).

He has also developed a course on Circuit Theory under the Pedagogy project at IIT Kharagpur, in addition to his textbook *Linear Circuits: Analysis & Synthesis*, published and sold all over the world by Oxford Univ. Press. Recently he co-authored a huge reference book *Control Systems: Classical, Modern, and AI based Approaches*, covering the gamut of control and this is published by the Taylor & Francis group, CRC Press, USA.

He visited **Texas A&M University** during summer 2008, **University of Leicester** during 2008 and again during 2011, and **Institut Henri Poincaré**, Paris during 2014.

He was the founder secretary (2011-14), Vice-President (2014-16) and President (2016-18) of Automatic Control and Dynamic Optimization Society (ACDOS), the Indian NMO of the IFAC, through which he passionately contributes to controls education in the country. He has been a senior member of IEEE and a member of SIAM (Society for Industrial & Applied Mathematics, USA). He is currently on the IPC of several major control conferences across the world.

On the non-engineering front he absorbs himself in Classical music (Carnatic as well as Western), Literature (Telugu, English, and translations), and Economics & Society.