

**Title : The science and technology roadmap evolution for Internet of Things**

Abstract: The talk will discuss the science and technology roadmap evolution for Internet of Things (IoT). We first elaborate IoT architecture from two perspectives, the mankind neural system for Unit IoT and social organization framework for Ubiquitous IoT in 2011. We also discuss a six -layer model for U2IoT (Unit and Ubiquitous IoT) inspired by the social attributes of objects. Additionally, we make explorations based on the convergence between Cyber-Physical-Social-Thinking (CPST) hyperspace and establish a CPST hyperspace based science and technology framework for IoT. Finally we analyze the key issues in the future Cyber-enabled Internet of X, from perspective of ubiquitous connection and space convergence respectively. This presentation provides an overall view of the science and technology evolution roadmap for IoT.

**Title : Cyberology: Cyber-Physical-Social-Thinking Spaces based Discipline and Inter-discipline Hierarchy for Metaverse (General Cyberspace)**

Abstract : It is well known that the metaverse, also named general cyberspace, is virtual-real fusion spaces, consisting of a virtual space namely cyberspace and virtual-real spaces namely cyber-enabled physical, social, and thinking (cyber-enabled) spaces. This paper discusses the open issues of the metaverse in terms of science and technology and proposes a new discipline and inter-discipline hierarchy for the metaverse first. Then, it explores various relevant standards of discipline classification and a discipline and inter-discipline hierarchy based on physical, social and thinking spaces, and investigates the cyberspace and cyberenabled spaces. On the basis of the above research, this paper proposes the detailed metaverse discipline and inter-discipline hierarchy based on cyber-physical-social-thinking spaces and enriches the content of cyberology from the aspects of cyberspace and cyber-enabled spaces. Finally, this paper predicts the future development of cyberology in terms of society, enterprise and humankind.