專 題 演 講

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題 目： Connect-compute Energy Efficient Techniques for 6G Wireless

大 綱：

As the advancements and proliferation of 5G technology continue, the demand for more efficient and reliable communication and computing techniques is steadily growing. In this context, 6G wireless communication is seen as a pivotal technology for driving the digital transformation across various sectors. This presentation will delve into "Connect-compute Energy Efficient Techniques for 6G Wireless," which focuses on two distinct paths : 1) Cutting-edge ML methods are being used to fulfill the critical performance metrics of 6G wireless networks. 2) The use of 6G networks is proving to be highly effective in boosting the capabilities of wireless ML applications. We will introduce Connect-compute Energy Efficient Techniques in Open Radio Access Network (O-RAN), Unmanned Aerial Vehicle (UAV), Reconfigurable Intelligent Surface (RIS), and Smart Grid. Through the different applications, we can realize higher spectrum efficiency, lower energy consumption, and more reliable wireless connectivity, laying a solid foundation for the future of 6G communication.

簡 歷：

Li-Chun Wang (M' 96 — SM' 06 — F' 11) received Ph. D. degree from the Georgia Institute of Technology, Atlanta, in 1996. He is now the Chair Professor and serves the Dean of College of Electrical and Computer Engineering of NYCU.

Dr. Wang was elected to the IEEE Fellow in 2011 for his contributions to cellular architecture and radio resource management in wireless networks. He won two Distinguished Research Awards from National Science and Technology Council (2012, 2017), IEEE Communications Society Asia-Pacific Board Best Award (2015), Y. Z. Hsu Scientific Paper Award (2013), and IEEE Jack Neubauer Best Paper Award (1997). He was recognized as Top 2% Scientists Worldwide in a study from Stanford University.

His recent research interests are in the areas of cross-layer optimization for wireless systems, AI-enabled radio resource management for heterogeneous mobile networks, and big data analysis for industrial Internet of things. He holds 26 US patents, and has published over 300 journal and conference papers, and co-edited the book, "Key Technologies for 5G Wireless Systems," (Cambridge University Press 2017).