PSGEC2024 KEYNOTE SPEAKER

Professor Qing-Hua Wu

吴青华 教授， 华南理工大学
South China University of Technology, China
Life Fellow of IEEE | Fellow of IET, CSEE | Deputy Editor-in-Chief of
CSEE Journal of Power and Energy Systems

Bio: Qing-Hua Wu received the Ph.D. degree in Electrical Engineering from Queens University of Belfast (QUB), Belfast, U.K., in 1987. He was a Research Fellow and subsequently a Senior Research Fellow at QUB from 1987 to 1991. In 1991, he joined the Department of Mathematical Sciences, Loughborough University, Loughborough, U.K., as a Lecturer, where subsequently, he was promoted as a Senior Lecturer. In September 1995, he joined the University of Liverpool, Liverpool, U.K., to take up his appointment to the Chair of Electrical Engineering at the Department of Electrical Engineering and Electronics. He is currently with the School of Electric Power Engineering, South China University of Technology, Guangzhou, China, as a Distinguished Professor and the Director of the Energy Research Institute. He has authored or coauthored more than 540 technical publications, including 400 journal articles, 20 book chapters, and 6 research monographs published by Springer. His research interests include nonlinear adaptive control, modelling and optimization, mathematical morphology, artificial intelligence, systems on chip, and power system control and stability analysis. Prof. Wu is a Life Fellow of IEEE, a Fellow of the Institution of Engineering and Technology (IET) and Chinese Society for Electrical Engineering and a Royal Chartered Engineer.

吴青华教授 1981 年获华中工学院工程硕士学位, 毕业后留校任教三年。1984 年赴英留学, 1987 年获得英国贝尔法斯特女王大学哲学博士, 随后留校担任研究员和高级研究员。 1991 年--1995 年 担任英国拉夫堡大学数学科学系讲师和高级讲师， 1995 年受聘于英国利物浦大学电气工程与电子系，担任终身讲座教授。 自 2011 年，他为国家特聘教授，广东省引进创新团队带头人，华南理工大学能源研究院院长。在国际一流期刊杂志上发表了 400 多篇论文和 6 本专著。 他的研究工作包括非线性自适应控制，数学形态学，人工智能， 片上系统，电力系统控制和稳定性分析。他是 Life Fellow of IEEE, Fellow of IET, Fellow of CSEE, Fellow of AIAA, 多所名校的访问教授和企业科学研究院的顾问教授。

Look Back for Looking Forward Further
-- Towards the Next Generation of Power Systems

Abstract: Historical review of the development of systems control, modelling, decision making support, artificial intelligence, information processing, forecasting, platform and SoC technologies and their applications in power systems, as well as coordinated control and system stability analysis of power systems, over the past 40 years, in order to identify the

basic methodologies and key technologies for the evolution and development of future large-scale complex power systems.

回顾历程，展望未来 --- 面对新型电力系统复杂性

摘要：本次讲座的主要内容是：为了应对未来大规模复杂电力系统演变，从过去四十年科学研究的视角进行阐述：系统建模，优化，决策支持，人工智能，互联网平台，信息处理，片上系统，协调控制，系统稳定等技术和理论的发展，以寻找有效方法和关键技术解决新型电力系统的复杂性。