Bio-Sketch, Xiaoqiang Cai

Professor Xiaoqiang Cai received his Ph.D. in Systems Engineering from Tsinghua University, Beijing, in 1988. After conducting postdoctoral researches at the University of Cambridge and the Queen's University of Belfast, UK, from 1989 to 1991, he went on to take the position of Lecturer at The University of Western Australia during 1991-1993. Since joining The Chinese University of Hong Kong (CUHK) in 1993, he has held the academic positions of Lecturer in 1993-1996, Senior Lecturer in 1996-2000, and full Professor from October 2000, at the Department of Systems Engineering and Engineering Management.

Professor Cai has played a leading and prominent role in promoting the development of systems engineering discipline in Hong Kong as well as in the Asia-Pacific region. From 1996 to 2003, he served as the Chairman of the Department of Systems Engineering and Engineering Management, the first department of such disciplines in Hong Kong. Under his leadership, this Department developed into a strong and highly influential force in systems engineering and engineering management in the Asia-Pacific region. He has in recent years been appointed as Dean of School of Science and Engineering, Director of Graduate Studies, and Associate Vice President (Education), of CUHK's new campus in Shenzhen, which further strengthen and extend his endeavor to be a leading educator in systems engineering and the related science and engineering disciplines.

Professor Cai's research interests are mainly in systems engineering, operations research, and management science. He has published over 200 papers in academic journals, books, and conferences, including more than 100 papers in leading journals (such as *Operations Research, Management Science, Naval Research Logistics, Production and Operations Management, IIE Transactions, IEEE Transactions,* and *Transportation Research*). He was the chair/co-chair for several international conferences, and member of the organizing committee/program committee/advisory committee for numerous international conferences. He has been an editor of *Advances in Operations Research* and *Journal of Mathematics*, and associate editor/editorial board member of *IIE Transactions on Scheduling and Logistics, Journal of Scheduling, Fuzzy Decision Making and Optimization, Journal of Systems Science and Systems Engineering, Journal of Systems Science and Complexity*, and *Journal of Industrial and Management Optimization*

Professor Cai has made significant contributions in practical applications. These include optimal dispatching of hydrothermal power systems, a single-track train scheduling system implemented in Australia, a manpower planning system for the air-cargo terminal of Hong Kong, industrial automation program for Hong Kong electronic manufacturing industry, carbon emission modelling for residential buildings, digital conservation of historical and cultural sites, etc. He co-leads the establishments of the Shenzhen Research Institute of Big Data and the Shenzhen Key Lab for IoT Intelligent Systems, which receive substantial funding supports from the government and the industry, and are expected to advance significantly the R&D and industrial applications in these increasingly important areas.

Professor Cai received the Outstanding Young Scientist award (overseas category) from the National Natural Science Foundation of China, and was awarded the titles of "National 1000-Talent Plan Expert" and "Pearl-River Leading Scholar". He is a Fellow of Hong Kong Institute of Engineers.