香港科技大學
THE HONG KONG UNIVERSITY OF
SCIENCE AND TECHNOLOGY

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HKUST Big Data Institute (BDI)
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Data Science and Analytics Webinar Series 2021

AIoT: Enabling technologies and Applications

📅 **3 May 2021** (Mon)

🕐 **18:00 – 18:50** (HKT, UTC+08:00)

📍 **Online via Zoom**
(Link to be provided upon registration)

Prof. Jiannong Cao
Otto Poon Charitable Foundation
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Abstract

The adoption of IoT in different areas contributes greatly to the prosperity of human society. However, despite the enormous progress in different research fields, current IoT technology is still in the nascent stage of its development. The emerging advanced IoT applications in connected healthcare, industrial internet, multi-robot systems, and other areas impose urgent demands on the solutions that exceed the capacity of existing IoT technologies. AIoT refers to the next-generation smart IoT powered by AI, aiming at developing solutions to tackle the challenges that cannot be solved today. In this talk, I will introduce the motivations and vision of AIoT, the enabling technologies which include smart sensors and devices, robotics, big data, edge computing and blockchain. With AIoT, we will be able to develop advanced applications that demand higher intelligence of the connected devices, larger scale of the systems, proactive and predictive actions, and automated operations and decision making. I will also share our recent research and application development focusing on smart sensing, urban resource management, and collaborative edge computing towards distributed intelligence.

About the speaker

Dr. Cao is the Otto Poon Charitable Foundation Professor in Data Science and the Chair Professor of Distributed and Mobile Computing in the Department of Computing at The Hong Kong Polytechnic University. He is the director of the Internet and Mobile Computing Lab, the director of Research Institute for AIoT, and the associate director of University's Research Facility in Big Data Analytics. He served the department head from 2011 to 2017.

Dr. Cao's research interests include parallel and distributed computing, wireless networking and mobile computing, big data and machine learning, and cloud and edge computing. He published 5 co-authored and 9 co-edited books, and over 500 papers in major international journals and conference proceedings. He also obtained 13 patents. Dr. Cao received many awards for his outstanding research achievements. He is a member of Academia Europaea, a fellow of IEEE and a distinguished member of ACM. In 2017, he received the Overseas Outstanding Contribution Award from China Computer Federation.

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