Professor Benjamin Wah Wan-sang

Honorary Fellow Citation

Some people meet limits and learn to live within them. Others spend a lifetime asking how far those limits can be pushed. In mathematics and computer science, that pursuit is known as optimisation – the discipline of finding the best possible answer under constraint. Professor Benjamin Wah Wan-sang has honed this discipline into an art of judgment, one that extends beyond scientific inquiry into a lifelong commitment to service. It has brought him international distinction as a scholar and guided his leadership in higher education and public life. In the spirit of optimisation, he has raised standards, strengthened institutions, and turned vision into change that endures.

Professor Wah's formative years gave shape to his scholarly temperament. From Hoi Pa Street Government Primary School and Queen Elizabeth School, he went on to Columbia University, where he studied Electrical Engineering and Computer Science, and on to the University of California, Berkeley, for his doctorate. At Berkeley, he came under the supervision of Emeritus Professor C. V. Ramamoorthy. From his thesis advisor, he absorbed not only the conduct of research but a manner of leading it that would mark every institution Professor Wah came to lead: appreciative, open to disagreement, and attentive to younger colleagues.

After starting his career at Purdue University, Professor Wah joined the University of Illinois Urbana-Champaign in 1985 and remained there for the rest of his US career, holding the

Robert T. Chien Professorship and the Franklin W. Woeltge Endowed Professorship, and continuing today as Emeritus Professor at Illinois. His work in nonlinear programming, multimedia signal processing, artificial intelligence and distributed systems addressed a practical problem: how complex systems can make optimal choices under real-world constraints. He twice took leave to tackle this question on a national scale: first as a Programme Director at the US National Science Foundation in the late 1980s; and later as founding Director of the Advanced Digital Sciences Center, Illinois's research collaboration in Singapore, which opened in 2009.

All the while, Hong Kong was the place to which Professor Wah's story was returning. His connection with CUHK was made long before the Provostship: in 1998 and 1999, he served as Professor of Computer Science and Engineering at the University, teaching nearly one hundred undergraduates about computer networks and setting them the demanding task of designing a working protocol machine, because he believed students learn best by building and testing solutions to real problems. He was honoured with the University's Exemplary Teaching Award.

A decade later, when CUHK created the office of the Provost for the first time in its history, it reached across the Pacific for the scholar to give the post its shape. Professor Wah took up the appointment as inaugural Provost of CUHK and Wei Lun Professor of Computer Science and Engineering in 2009, holding it until 2019. He remains an Emeritus Professor of the Department today.

During Professor Wah's ten years at CUHK, the University underwent its most significant undergraduate education reform in a generation: the 3+3+4 transition from a three-year to a four-year system. This reform demanded a simultaneous rethink of curricula, general education, admissions, faculty deployment, and postgraduate provision. As CUHK's first Provost, Professor Wah was the architect of its academic implementation, holding the institution in view while attending to the moving parts on which the reform depended – a problem of constrained optimisation in every sense.

Alongside this reform, he deepened the University's global partnerships, expanded postgraduate training, championed interdisciplinary research, and established

the University Planning Office to give CUHK an evidence base for strategic decisions. He played a pivotal role in the establishment of The Chinese University of Hong Kong (Shenzhen) and in shaping the "One Brand, Two Campuses" framework, serving as a founding member of its Governing Board in 2013 and Acting Director of the Shenzhen Research Institute in 2014–15. Over the following decade, CUHK-Shenzhen exemplified Hong Kong higher education's contribution to national development. Even amid weekday administrative demands, he mentored doctoral students on Saturdays.

By 2005, his influence extended to the Research Grants Council, where he chaired the Engineering Panel from 2006 to 2009, and the Council itself from 2013 to 2020. The work called for judgment of a high order: research funding is never simply the distribution of money, but a series of decisions about which fields to back, which scholars to nurture, and which conditions allow discovery to take root. Under Professor Wah's stewardship, the Council established itself as a respected research-funding body of international standing. He was appointed Justice of the Peace by the Government of the Hong Kong Special Administrative Region in 2018, awarded the Bronze Bauhinia Star in 2021, and has chaired the InnoHK Steering Committee since 2025.

The recognition in Hong Kong is matched by the stature his research holds abroad. Elected to the fellowship of all three of the world's principal computing and scientific academies, Professor Wah is a Fellow of the Institute of Electrical and Electronics Engineers (IEEE), where he has been a Life Fellow since 2017, of the Association for Computing Machinery, and of the American Association for the Advancement of Science. He is also a Fellow of the Hong Kong Academy of Engineering Sciences and the Asia-Pacific Artificial Intelligence Association. As President of the IEEE Computer Society in 2001, he launched its free distance-learning programme. His distinctions encompass the IEEE Computer Society's Technical Achievement, W. Wallace McDowell and Tsutomu Kanai Awards, the IEEE Third Millennium Medal, and UC Berkeley's Distinguished Alumni Award. His prolific output exceeds 250 papers, two authored books, and three edited volumes – including this year's *Perceptual Quality: Online Real-Time Interactive Multimedia* from Springer Nature.

In Professor Wah, we are honouring a scholar of global renown, an academic leader who shaped CUHK's intellectual vitality, and a public steward who fortified Hong Kong's research foundations. "Committed to the right things and always performing to the best of my ability," he says – a motto defining his lifetime of optimisation in academia and service. Mr Vice-Chancellor, it is my great pleasure to present Professor Benjamin Wah Wan-sang for an Honorary Fellowship of the University.