

Ben M. Chen

Ph.D., Fellow of IEEE, Fellow of Academy of Engineering, Singapore

1. Academic Qualification

Ph.D. in Electrical and Computer Engineering, Washington State University, USA, 1991.

M.S. in Electrical Engineering, Gonzaga University, USA, 1988.

B.S. in Computer Science, Xiamen University, China, 1983.

2. Previous Academic Positions

Lecturer (1993–1996), Senior Lecturer (1996–1999), Associate Professor (1999–2004), Full Professor (2005–2021), Provost's Chair Professor (2016–2018), in the Department of Electrical and Computer Engineering, National University of Singapore, 1993–2021.

Assistant Professor, in the Department of Electrical Engineering, State University of New York at Stony Brook, USA, 1992–93.

3. Present Academic Position:

Professor, Department of Mechanical and Automation Engineering, Chinese University of Hong Kong (CUHK), 2018–present

4. Research Interests and Work

Have extensive research experiences in unmanned aerial systems, systems theory, control theory and applications. Published 10 research monographs in unmanned aerial systems, systems and control, by world leading publishers such as Springer and Prentice Hall, and 176 articles in international journals including top ones in the field, such as IEEE Transactions. Completed 14 research projects related to unmanned systems technologies, funded by the defense sector in Singapore, from 2003 to 2019, while working at the National University of Singapore. Have 4 ongoing projects at CUHK.

5. Ongoing Research Grants

- PI, "Collaborative search and pursuit-evasion for unmanned systems in cluttered environments," funded by Hong Kong Research Grants Council, HK\$1,382,623, 01/2022–12/2024.
- PI, "Advanced motion planning techniques for the cooperation of multi-agent systems," funded by Hong Kong Research Grants Council, HK\$815,601, 01/2022–12/2024.
- PI, "Intelligent navigation & robust flight control systems for unmanned systems," funded by Hong Kong Research Grants Council, HK\$873,995, 01/2021–12/2023.
- PI, "Development of AI and drone technologies for building inspection and monitoring," part of Hong Kong Centre for Logistics Robotics, funded by Innovation & Technology Commission–InnoHK, with a total fund of HK\$300,500,000, 05/2020–04/2025.

6. Representative Publications

- X. Zheng and B. M. Chen, *Stock Market Modeling and Forecasting*, Springer, New York, 2013.
- G. Cai, B. M. Chen and T. H. Lee, *Unmanned Rotorcraft Systems*, Springer, New York, 2011.
- B. M. Chen, T. H. Lee, K. Peng and V. Venkataramanan, *Hard Disk Drive Servo Systems*, 2nd Edition, Springer, New York, 2006.
- C. C. Ko, B. M. Chen and J. Chen, *Creating Web-based Laboratories*, Springer, New York, 2004.
- B. M. Chen, Z. Lin and Y. Shamash, *Linear Systems Theory*, Birkhauser, Boston, 2004.
- B. M. Chen, *Robust and H^∞ Control*, Springer, London, 2000.
- A. Saberi, P. Sannuti and B. M. Chen, *H_2 Optimal Control*, Prentice Hall, London, 1995.
- A. Saberi, B. M. Chen and P. Sannuti, *Loop Transfer Recovery*, Springer, London, 1993.
- T. Hu, Z. Lin and B. M. Chen, An analysis and design method for linear systems subject to actuator saturation and disturbance, *Automatica*, Vol. 38, No. 2, pp. 351-359, 2002.
- B. M. Chen, T. H. Lee, K. Peng and V. Venkataramanan, Composite nonlinear feedback control for linear systems with input saturation: Theory and an application, *IEEE Transactions on Automatic Control*, Vol. 48, No. 3, pp. 427-439, 2003.

Full CV is available through this web link: <http://www.mae.cuhk.edu.hk/~bmchen/cvdata/bmchen-cv.pdf>.