Ben M. Chen

Ben M. Chen is currently a Professor of Electrical and Computer Engineering at the National Univer Singapore. His current research interests are in systems theory, robust control, unmanned aerial sys and financial market modeling. Dr. Chen is the author/co-author of 8 research monographs includi Optimal Control (Prentice Hall, London, 1995), Robust and H-infinity Control (Springer, New York, Hard Disk Drive Servo Systems (Springer, New York, 1st Edition., 2002; 2nd Edition, 2006), Systems Theory: A Structural Decomposition Approach (Birkhäuser, Boston, 2004), and Unma Rotorcraft Systems (to be published by Springer, New York).

Dr. Chen is a Fellow of IEEE. He has served on the editorial boards for more than 10 journals inc IEEE Transactions on Automatic Control, Control and Intelligent Systems, Systems & Control Letter Automatica. He was the recipient of the Best Poster Paper Award, 2nd Asian Control Conference, Korea (1997); University Researcher Award, National University of Singapore (2000); IES Prest Engineering Achievement Award, Institution of Engineers, Singapore (2001); Temasek Young Invest Award, Defence Science & Technology Agency, Singapore (2003); Best Industrial Control Appli Prize, 5th Asian Control Conference, Melbourne, Australia (2004); Best Application Paper Awar Asian Control Conference, Hong Kong, China (2009); and Best Application Paper Award, 8th Congress on Intelligent Control and Automation, Jinan, China (2010).

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Autobiographical Note of Site Owner...

My name is Ben M. Chen. I was born in Fuqing, Fujian, China, on November 25, 1963, received a B.S. degree in mathematics and computer science from Xiamen University, Xiamen, Fujian, China, in July 1983, an M.S. degree in electrical engineering from Gonzaga University, Spokane, Washington, USA, in May 1988, and a Ph.D. degree in electrical & computer engineering from Washington State University, Pullman, Washington, USA, in August 1991.

I was a software engineer in the South-China Computer Corporation, Guangzhou, China, from July 1983 to March 1986. I held a Presidential Scholarship at Gonzaga University from 1986 to 1988, and a Cardinal Yu-Pin Scholarship from the Sino-American Amity Fund, New York, from 1986 to 1991, when I was attending Gonzaga University and Washington State University. From August 1991 to August 1992, I was a postdoctoral associate at Washington State University, and was an assistant professor from August 1992 to August 1993 in the Department of Electrical Engineering, the State University of New York, Stony Brook, New York, USA. Since August 1993, I have been with the Department of Electrical and Computer Engineering, the National University of Singapore (NUS), where I am currently a Professor and Provost's Chair. I was also serving as the Director of Control, Intelligent Systems and Robotics Area, and the Head of Control Sciences Group, NUS Temasek Laboratories. Since August 2018, I have also been a professor in the Department of Mechanical and Automation Engineering, the Chinese University of Hong Kong. I was a Changjiang Guest Chair Professor at Nanjing University of Science and Technology, China, from 2010 to 2013. My current research interests are in robust control, systems theory, control applications, the development of UAV helicopter systems, and financial market modeling.

I am the author/co-author of the research monographs, Loop Transfer Recovery: Analysis and Design (New York: Springer, 1993); H_2 Optimal Control (London: Prentice Hall, 1995); H_∞ Control and Its Applications (New York: Springer, 1998; Chinese Version published by Science Press, Beijing, 2010); Robust and H_∞ Control (New York: Springer, 2000); Hard Disk Drive Servo Systems (New York: Springer, 2002); Creating Web-Based Laboratories (New York: Springer, 2004); Linear Systems Theory: A Structural Decomposition Approach (Boston: Birkhauser, 2004; Chinese Version published by Tsinghua University Press, Beijing, 2008); Hard Disk Drive Servo Systems (2nd Edition) (New York: Springer, 2006); Unmanned Rotorcraft Systems (New York: Springer, 2011; Chinese Version published by Tsinghua University Press, Beijing, 2012); and Stock Market Modeling and Forecasting: A System Adaptation Approach (New York: Springer, 2013).

I held associate editor appointments with the Conference Editorial Board of IEEE Control Systems Society (1997-1998), Chinese Control Conference Editorial Board (2008-2012), IEEE Transactions on Automatic Control (1999-2001), Asian Journal of Control (2002), Control and Intelligent Systems (2002-2007), Automatica (2005-2008), Journal of Control Science and Engineering (2006-2009), Transactions of the Institute of Measurement and Control (2007-2010), Systems & Control Letters (2004-2010), an editor-at-large for Journal of Control Theory and Applications (2008-2013), a member of international advisory board of Kuwait Journal of Science & Engineering (2003-2013), and served as a guest editor for Transactions of South African Institute of Electrical Engineers (2002), Transactions of the Institute of Measurement and Control (2009), Journal of Control Theory and Applications (2009), and Mechatronics (2009). I currently serve as an editor-in-chief of Unmanned Systems (2012-), deputy editor-in-

chief of Control Theory and Technology (2013-), associate editor for Frontiers of Electrical and Electronic Engineering (2010-), advisory board member of International Journal of Automation and Logistics (2014-), editorial board member of Journal of Systems Science and Complexity (2014-), associate editor of IEEE/CAA Journal of Automatica Sinica (2014-), and associate editor of Science China: Information Sciences (2015-),

I was elected to Fellow of IEEE, Institute of Electrical & Electronics Engineers (IEEE), USA, in 2007, and Fellow of Chinese Association of Automation (CAA), China, in 2015. I served as the chairman of IEEE Singapore Control Systems Chapter in 2002 and 2003; and the general chair of 5th IEEE International Conference on Control and Automation, Budapest, Hungary, 2005; 8th IEEE International Conference on Control and Automation, Xiamen, China, 2010; and 14th IEEE International Conference on Control and Automation, Anchorage, Alaska, USA, 2018. I am currently serving as a member of Technical Committee on Control Theory, Chinese Association of Automation, China (2008-). I have been invited to deliver keynote and plenary speeches at international conferences held in USA, China, Canada, UK, India, Malaysia and Australia.

I was the recipient of the Best Poster Paper Award, 2nd Asian Control Conference, Seoul, Korea (1997); University Researcher Award, National University of Singapore (2000); Prestigious Engineering Achievement Award, Institution of Engineers, Singapore (2001); Temasek Young Investigator Award, Defence Science & Technology Agency, Singapore (2003); Best Industrial Control Application Prize, 5th Asian Control Conference, Melbourne, Australia (2004); Best Application Paper Award, 7th Asian Control Conference, Hong Kong (2009); and Best Application Paper Award, 8th World Congress on Intelligent Control and Automation, Jinan, China (2010).

My unmanned systems research team, GremLion, was selected as one of the 9 finalists, out of 144 teams from 153 countries, to take part in the final fly-off in the 2012 DARPA UAVForge Challenge, held in Fort Stewart, Georgia, USA, May 2012. The Challenge, with no winner declared, was jointly organized by the Defense Advanced Research Projects Agency (DARPA) and Space and Naval Warfare Systems Center Atlantic (SSC Atlantic), USA. In the 2nd AVIC Cup ~ International UAV Innovation Grand Prix, held in Beijing, China, September 2013, my unconventional aircraft team was awarded a New Innovation Star Award; my rotorcraft team finished a 2nd place in the Rotary-Wing Competition (1st in the final round), for which its technical innovation was awarded the Guan Zhao-Zhi Award at the 33rd Chinese Control Conference held in Nanjing, China, 2014. My UAV team was the champion at the 2014 International Micro Aerial Vehicle (IMAV) Competition, held in Delft, the Netherlands, August 2014, and was the 1st runner up at the 2015 International Micro Aerial Vehicle (IMAV) Competition, held in Aachen Germany, September 2015. My drone team AeroLion claimed the championship in the Rotary-Wing Competition at the 3rd AVIC Cup ~ International UAV Innovation Grand Prix, held in Zhejiang, China, October 2015, and swept both the indoor and outdoor competition championships at the 2017 International Micro Aerial Vehicle (IMAV) Competition, held in Toulouse, France, September 2017. NUS UAV Team is a constant winner of many major awards in the annual Singapore Amazing Flying Machine Competition.

I am married to Feng with three kids, Andy, Jamie and Wen. My hobbies include Chinese chess, table tennis, basketball, swimming, bowling and TV sports, especially the American football. I am a diehard fan of the Washington State Cougars. My favorite music includes Peking opera, soft rock, Chinese folk and American country music. My favorite colors are black and white, my favorite movie star is Bugs Bunny, and my favorite junk food is pizza.

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