**BIOGRAPHICAL SKETCH**

**YangQuan Chen** Professor, Mechatronics

ME/EECS, School of Engineering, University of California, Merced (UCM)

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**PROFESSIONAL PREPARATION**

Nanyang Technological Univ., Singapore Ph.D. 1998 Advanced Control & Instrumentation

Beijing Institute of Technology, China M.S. 1989 Control Theory & Applications

Univ. of Sci. and Tech. of Beijing, China B.S. 1985 Industrial Automation

**APPOINTMENTS**

2017- Professor (stp 3), University of California, Merced (UCM) (since Fall)

2014-2017 Associate Professor (stp 4), University of California, Merced (UCM) (since Fall)

2012-2014 Assistant Professor (stp 6), University of California, Merced (UCM) (since Fall)

2011 Visiting Professor, University of Pretoria, South Africa (Jan. – May)

2008-2012 Associate Professor and Graduate Coordinator (08-10), ECE Dept. of USU.

2004-2012 Director of Center for Self-Organizing and Intelligent Systems (CSOIS)

2002-2008 Assistant Professor of Electrical Engineering, ECE Dept. of USU.

2000-2002 Research Assistant Professor, ECE Dept. and CSOIS, USU

* 1. Staff Engineer, Servo Product Development Group, Seagate Technology International, Singapore Science Park Design Center, Singapore.

1998-1999 Professional Officer, Center for Intelligent Control, National Univ. of Singapore.

1996-1998 Research Engineer, ECE Dept. of National University of Singapore, Singapore

* 1. Research Scholar. School of EEE, Nanyang Technological University, Singapore.
	2. Associate Professor, Dept. of Electrical Engineering, Xi’an Inst. of Tech., China
	3. Deputy Head, Dept. of Electrical Engineering, Xi’an Inst. of Technology, China
	4. Lecturer, Dept. of Electrical Engineering, Xi’an Institute of Technology, China
	5. Visiting Researcher, Dept. of Automatic Control, Beijing Institute of Tech., China

**publications**

**(**<http://scholar.google.com/citations?user=RDEIRbcAAAAJ&hl=en> | **[ISI H-index=46](http://www.researcherid.com/rid/A-2301-2008))**

**FIVE publications most related:**

* Hadi Malek, YangQuan Chen. "[Fractional Order Power Point Tracking](http://appft.uspto.gov/netacgi/nph-Parser?Sect1=PTO2&Sect2=HITOFF&p=1&u=%2Fnetahtml%2FPTO%2Fsearch-bool.html&r=1&f=G&l=50&co1=AND&d=PG01&s1=%22Fractional+Order+Power+Point+Tracking%22&OS=%22Fractional+Order+Power+Point+Tracking%22&RS=%22Fractional+Order+Power+Point+Tracking%22)", US Non-provisional patent 20130268219, (April 2013). Filed Apr 9, 2012
* C Yin, B Stark, YQ Chen, S Zhong. [Adaptive minimum energy cognitive lighting control: Integer order vs fractional order strategies in sliding mode based extremum seeking](http://www.sciencedirect.com/science/article/pii/S0957415813001621). [Mechatronics 23 (7),](http://www.sciencedirect.com/science/journal/09574158/23/7) 863-872
* Chun Yin, Brandon Stark, YangQuan Chen\*, Shou-Ming Zhong. “Minimum Energy Cognitive Lighting Control: Stability Analysis and Experiments”  ASME IDETC 2013, IEEE/ASME MESA2013. Portland, OR, Augsut 4-8, 2013. ([Best Paper Award](http://mechatronics.ucmerced.edu/news/2013/mesa-lab-wins-best-paper-award-mechatronics-applications))
* Zhen Song, YangQuan Chen et al. “*Optimal Observation for Cyber-Physical Systems – A Fisher Information Matrix Based Approach*”. Springer 2009. ISBN: 978-1-84882-655-7.
* Christophe Tricaud and YangQuan Chen. “*Optimal Mobile Sensing and Actuation Policies in Cyber-Physical Systems*” Spring-Verlag, ISBN-13: 978-1447122616, 2011.

**FIVE other publications:**

* YangQuan Chen\*, Zhongmin Wang+ and Jinsong Liang+. “Optimal Dynamic Actuator Location in Distributed Feedback Control of A Diffusion Process,” *International Journal of Sensor Networks*. Volume 2 - Issue 3/4 – 2007, pp. 169 - 178
* US Patents: US06,831,804, US6,785,073, US6,704,159, US 6,690,534, US06,674,607, US06,674,589, US06,661,599, US06,654,198, US06,636,375, US06,574,067, US06,563,663, US06,437,936, US06,324,890, and US07,599,752.
* Dingyu Xue\* and YangQuan Chen. “Solving Advanced Applied Mathematical Problems Using Matlab”. **Taylor and Francis CRC Press**. 2008. ISBN: 978-1420082500
* Dingyu Xue, YangQuan Chen\* and Derek Atherton. “Linear Feedback Control – Analysis and Design with Matlab”. **SIAM Press**, 2007, ISBN: 978-0-898716-38-2. (348 pages)
* YangQuan Chen and Changyun Wen, “*Iterative Learning Control: Convergence, Robustness and Applications***,” Springer-Verlag**, Lecture Notes Series on Control and Information Science, vol. LNCIS-248, 1999, 199 pages, ISBN: 1-85233-190-9.

**SYNERGISTIC ACTIVITIES:**

* NSF REU (Research Experience for Undergraduates) site program PI/Director (2006-2012). Engaged 45+ undergraduates, about half of them from outside Utah and underrepresented.
* 2nd Place Award, AUVSI Student UAS Competition 2008, Maryland ( $8000 cash prize); 1st Place Award, AUVSI 2009, Maryland ( $14000 cash prize). 1st place again in 2011 ($13600)
* Chair and Organizer, Int. Symp. On Small UAV Tech. and Applications (SUAVTA) under MESA, 2009 (San Diego), 2010 (Qingdao, China), 2011 (Washington DC), 2012 (Suzhou, China) and 2013 (Portland, OR). ASME DED TC MESA TC Chair 2009-2010.
* Faculty Researcher of The Year, (Robins Award), Utah State University, 2012
* Best Paper Award, IFAC journal Control Engineering Practice (IFAC World Congress 2011)

**COLLABORATORS & OTHER AFFILIATIONS:**

**Collaborators and Co-Editors**.

J. Q. Sun, Gerardo Diaz, UC Merced, USA

X. Xia, University of Pretoria, South Africa

I. Podlubny, Tech. Univ. of Kosice, Slovakia

D. Xue, Northeastern University, China

Editorial board members of several journals such as IEEE Trans. Control Systems Tech., IFAC Mechatronics, IFAC Control Eng’g Practice, ISA Transactions, IET CTA.

**Graduate Advisors and Postdoctoral Sponsors**.

**Ph.D Advisor**: Professor Changyun Wen, Nanyang Technological University, Singapore;

**Postdoctoral Advisor**: Professor Kevin L. Moore, Colorado School of Mines, USA.

**Thesis Advisor and Postgraduate-Scholar Sponsor**.

Graduated 11 Ph.D. and 14 MSc. students. Now serving as faculty advisor for 10 plus undergraduate researchers, 6 PhD students, 7 visiting scholars/exchange Ph.D. students.