Chan, Wai Leung

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RESEARCH INTERESTS

Linear control, systems design, theoretical and numerical analysis of deployable structures, experimental design and construction of structures for active vibration isolation and deployment, left-handed material design and analysis.

EDUCATION

2002 - present	PhD Candidate, Mechanical and Aerospace Engineering, University of California, San Diego (graduation date: June, 2004)
	Advisor: Robert E. Skelton
1999-2002	M.S., Mechanical and Aerospace Engineering, University of California, San Diego
1997-1999	M.S., Physics, University of California, San Diego (qualified, not official)
1994-1997	B.S., Physics, Hong Kong University of Science and Technology

AWARDS

- Dissertation Fellowship, Dept. of MAE, University of California, San Diego, 2004.
- Tuition Award, Dept. of Physics, University of California, San Diego, 1997/1998.
- Madam Wong Ming-Yeun Scholarships, Hong Kong, 1996/1997.

ACADEMIC AND WORKING EXPERIENCE

1999 - present	Research Assistance/Graduate Student, Structural Systems and Control Laboratory, Dept. of Mechanical and Aerospace Engineering, University of California, San Diego.
	Static and dynamics analysis of deployable structures, experimental design and construction of tendon controlled structures using piezoelectric sensors/actuators, microprocessors and motors for active damping and deployment.
1997-1999	Teaching Assistance/Graduate Student, Dept. of Physics, University of California, San Diego.
	Discussion sections and problem sessions, grading quizes and exams.
1995-1997	Research Assistance/Undergraduate Student, Dept. of Physics, Hong Kong University of Science and Technology.
	Micro-Fabrication of semiconductor for optical devices, material characterization, random network (coaxial cables) setup and data acquisitions for microwave propagation (Energy localization).
1994-1995	Clerk, Yasuda Reinsurance Company Ltd.
	General office work, data entry, part-time.

PUBLICATIONS

Wai Leung Chan, Diego Arbelaez, Frederic Bossens, Robert.E.Skelton *Active vibration control of a three-stage tensegrity structure* SPIE 11th Annual International Symposium on Smart Structures and Materials, San Diego, 2004

Waileung Chan, Robert E. Skelton. *Equilibria and Stiffness of Planar Tensegrity Structures.* AAS / AIAA Space Flight Mechanics Meeting, San Antonio, Texas, January 2002.

Skelton, R.E., Helton, J.W., Adhikari, R., Pinaud, J.P., Chan, W., *An Introduction to the Mechanics of Tensegrity Structures.* Proceedings of 40th IEEE, Conference on Decision and Control, 2001.

Skelton, R.E.,Helton, J.W., Adhikari, R., Pinaud, J.P., Chan, W., *An Introduction to the Mechanics of Tensegrity Structures.* The Mechanical Systems Design Handbook: Modeling, Measurement, and Control, CRC Press, 2001.

T.T.H. Eng, J.Y.L. Ho, P.W.L. Chan, S.C. Kan, G.K.L. Wong, *Large Core($\sim$60μm) SOI Multimode Waveguides for Optical Interconnect.* IEEE Photonics Technology Letters, Vol, 8, No. 9, September 1996.

SKILLS

- System identification, linear, nonlinear, robust and adaptive control, fiber optics.
- Finite element method, numerical linear algebra, differential equations and optimization.
- AutoCAD, Solid Work, Labview, Matlab, Simulink, Mathematica, C/C++, Pascal, MS-office, Linux, OpenGL, Latex, Image processing using Matlab and OpenGL, HFSS software for electromagnetic simulation.
- Machining, D-space, vector analyzer and other common laboratory electronics equipments.