

Wei-Chih Wang

Curriculum Vitae

*Department of Mechanical Engineering
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EDUCATIONAL HISTORY

University of Washington, Seattle, Washington
Doctor of Philosophy, Electrical Engineering
June, 1996

“A Study of Fluid Viscosity and Flow Measurement using Fiber-Optic Transducer”

University of Washington, Seattle, Washington
Master of Science, Electrical Engineering
March, 1992

“A New Optical Microsensor For Mechanical Detection Using Scattering of a Micro-Pipette”

University of Washington, Seattle, Washington
Bachelor of Science, Electrical Engineering
March, 1989

EMPLOYMENT HISTORY

Department of Mechanical Engineering at University of Washington
Seattle, Washington, U.S.A.
Research Assistant Professor

1/03 – present

Department of Electrical Engineering at University of Washington
Seattle, Washington, U.S.A.
Adjunct Research Assistant Professor

10/05 - present

Department of Electronic Engineering at Southern Taiwan University of Technology
Tainan, Taiwan, R.O.C.
Affiliated Research Assistant Professor

6/04 – present

Department of Mechanical Engineering at University of Washington
Seattle, Washington, U.S.A.
Lecturer

3/98 – 1/03

Department of Mechanical Engineering at University of Washington
Seattle, Washington, U.S.A.
Research Associate

9/97 – 3/98

Department of Electrical Engineering, University of Hawaii at Manoa
Honolulu, Hawaii, U.S.A.
Post-Doctoral Fellow 3/96 – 6/97

Department of Electrical Engineering, University of Washington
Seattle, Washington, U.S.A.
Research Assistant and Teaching Assistant 3/92 – 12/94

Instructional Center, University of Washington
Seattle, Washington, U.S.A.
Tutor of Physics & Engineering Courses 3/85 – 3/92, 6/97 – 3/98

AWARDS AND HONORS

Abstract on Clinical force sensing glove is up for the "Clinical Biomechanics Award" which "recognizes outstanding new biomechanics research targeting a contemporary clinical problem", 2008.

College of Engineering Community and Innovation Award in 2006, University of Washington, Seattle, Washington, U.S.A.

Top rank in patent disclosure at University of Washington in 2005, 2006, 2007
(http://depts.washington.edu/techtran/aboutus/Annual_Report/FY2005.pdf,
http://depts.washington.edu/techtran/aboutus/Annual_Report/FY2006.pdf,
http://depts.washington.edu/techtran/aboutus/Annual_Report/FY2007.pdf)

Special Article on smart structure appear on Horizon Air In-fly magazine, May, 2008

Special Article appears in SPIE Newsroom Micro/nano lithography & fabrication- Building better head-mounted displays using microfabrication. (2006) (<http://spie.org/x8745.xml>)

Special Articles on waveguide based shear/pressure sensor appear in Ruthers Health, Saturday Evening Post, Washington Engineer, Proto Online – A Flexible Micromachined Optical Sensor for simultaneous measurement of pressure and shear force distribution on foot. (2005, 2006)
(<http://www.podiatryonline.com/main.cfm?pg=diabetes&fn=fiberoptic>,
http://www.findarticles.com/p/articles/mi_m1189/is_6_277/ai_n15792758,
<http://www.engr.washington.edu:8080/enews/2005-10/15.html>,
<http://www.buylowdrugs.com/foptic.php>)

Post-doctoral Fellowship, DARPA funded piezoelectric transducer project, 1996-1997,
Department of Electrical Engineering, University of Hawaii at Manoa, Honolulu, Hawaii, U.S.A.

Awarded the Ford Motor Company's fellowship in 1995, University of Washington, Seattle, Washington, U.S.A.

Awarded the TRW fellowship in 1994, University of Washington, Seattle, Washington, U.S.A.

Runner-up for the annual Best Teaching Assistant Award of Department of Electrical Engineering, University of Washington in 1993, Seattle, Washington, U.S.A.

Received the Teddy Miller Tutor Award, University of Washington in 1989, Seattle, Washington, U.S.A.

Received the annual University of Washington Instructional Center Physics Tutor Award in 1988 Seattle, Washington, U.S.A.

AFFILIATIONS AND OTHER APPOINTMENTS

Adjunct Research Assistant Professor, Department of Electrical Engineering, University of Washington, Seattle, WA

Affiliate Research Assistant Professor, Department of Electronic Engineering at Southern Taiwan University of Technology, Tainan, Taiwan, R.O.C.

PUBLICATIONS

Refereed archival journal publications

- [1] Wei-Chih Wang, M. Afromowitz, B. Hannaford, "Technique for mechanical measurement using optical scattering from a micro-pipette", IEEE Trans. Biomedical Eng., Vol. 40, 3, p298-304, 1994
- [2] Wei-Chih Wang, S. Yee, P. Reinhall, "Optical viscosity sensor using forward light scattering", Sensor & Actuator B 24-25, p753-755, 1995
- [3] Wei-Chih Wang, P. Reinhall, S. Yee, "Fluid viscosity measurement using forward light scattering [submerged optical fibre probe]", Measurement Science and Technology, 10 (4), 316-22, 1999
- [4] Wei-Chih Wang, Mark Fauver, Joe N. Ho, Eric J. Seibel, Per G. Reinhall, "Micromachined optical waveguide cantilever as a resonant optical scanner," SENSORS AND ACTUATORS: A., 102, pp.165-175, 2002.
- [5] Wei-Chih Wang, Per Reinhall, "A novel double-sided micromachining process for silicon cantilever using a parallel capacitively coupled plasma," Journal of Microlithography, Microfabrication, and Microsystems, Vol.4, 1, p.013010-1 to 6 (2005)
- [7] Wei-Chih Wang, William Ledoux, Bruce Sangeorzan, Per Reinhall, "A shear and plantar pressure sensor based on fiber-optic bend loss," Journal of Rehabilitation Research and Development, vol.42, N. 3, p.315-326, 2005.
- [8] Wei-Ching Chuang, Chi-Ting Ho, and Wei-Chih Wang, "Fabrication of high-resolution periodical structure using a replication process," Optics Express, Vol. 13 Issue 18 P 6685-6692 (September 2005)
- [9] Wei-Ching Chuang, Chi-Ting Ho, Yi-Ru Lian, Ching_Kong Chao, Ryue-Fang, Shyu, and Wei-Chih Wang, " Transducing mechanical forces using a polymer optical grating sensor," Material Science Forum, Vols. 505-507, p91-96, 2006
- [10] Wei-Chih Wang, Chi-Ting ho, Yi-Ru Lian, and Wei-Ching Chuang, "Transducing mechanical force by use of a diffraction grating sensor," Applied Optics, Vol.45, 9, p1894-1897, 2006

- [11] Wei-Chih Wang, "MEMS based cantilever waveguide scanning system for a head mount display system," SPIE Newsroom, Micro/Nano Lithography & Fabrication, 2006 (<http://newsroom.spie.org/x3121.xml?highlight=x525>)
- [12] Yu-Cheng Lin, Wei-Ching Chuang, Chien-Jang Wu, and Wei-Chih Wang, "A compact-size D lens collimator for fiber coupling," Journal of Optoelectronics and Advanced Materials, Vol. 9, No. 8, P. 2371-2375, 2007.
- [13] Chu-Yu Huang, Wei-Chih Wang, Wen-Jong Wu, William Ledoux, "Composite fiberoptic distributive shear/pressure sensor," IEEE Sensors Journal, Vol. 7, No. 11, p.1554-1565, 2007.
- [14] Reynold Panergo, Cheng-Sheng Huang, Choa-Shih Liu, Per Reinhall, Wei-Chih Wang, "Resonant polymeric optical waveguide cantilever integrated for image acquisition," Journal of Lightwave technology, Vol. 25, No. 3, pp. 850-860, March, 2007
- [15] Wei-Chih Wang, Chu-yu, Hunag, William Ledoux, Per Reinhall, "Developments of a Microfabricated optical bend loss sensor for distributive pressure measurement," IEEE Trans. Biomedical Eng., Vol. 55 No.2, p.614-625, 2008.
- [16] Wei-Chih Wang, Per Reinhall "Scanning Polymeric Waveguide Design of a 2D display system," IEEE Journal of Display Technology, Vol 4, No.1, pp.28-38, 2008
- [17] Cheng-Sheng Huang, Wei-Chih Wang, "Fabrication of a flexible polymeric rib waveguide with self align couplers system," Journal of vacuum science and technology B, Vol.26, No.1, p.1-13-18, 2008.
- [18] Cheng-Sheng Huang, Wei-Chih Wang, "Large core single mode rib SU8 waveguide using solvent assisted microcontact molding," Applied Optics, in reviewed, 2007
- [19] Cheng-Sheng Huang, Wei-Chih Wang, "Fabrication of flexible waveguide with Bragg grating" IEEE Photonics technology letter, in reviewed, 2007
- [20] Yan-Min Kuo, Huei-Jeng Lin, Chao-Nan Wang, Wei-Chih Wang, Cheng-Ling, Chang, "Study the Interaction of Two Acoustical Fields and One FRP Structure with FEM-BEM Coupling Analysis," Journal of Reinforced Plastics and Composites, accepted, 2008
- [21] Wei-Chih Wang, Joe Ho, Per Reinhall "Use of nonlinear vibration for viscosity measurement," Journal of Vibration and Control, currently revising, 2007.
- [22] Alexander .I. Fedorchenko, Ivo Stachiv, Joe Ho, Anbang Wang, Wei-Chih Wang, "On the forced vibration of the fiber partially immersed in fluid," sensors and actuator, accepted, 2008
- [23] Cheng-Sheng Huang, Yue-Bun Pun, Per G. Reinhall, Wei-Chih Wang, "Fabrication of a flexible rib waveguide with Bragg grating filter," Journal of Optical Society of America A, in review, 2008
- [24] Joe Ho, Wei-Chih Wang, "Diamagnetic levitation rotor system", Sensors and Actuators, in review, 2008.
- [25] A A.I. Fedorchenko, I. Stachiv, A.- B. Wang and W. - C. Wang, "Fundamental Frequencies of Mechanical Systems with N -Piecewise Constant Properties," Nature Physics, submitted, March, 2008
- [26] A.I. Fedorchenko, I. Stachiv, A.- B. Wang and W. - C. Wang, "Fundamental Frequencies of Mechanical Systems with N -Piecewise Constant," Journal of Sound and Vibration, submitted April, 2008
- [27] A.I. Fedorchenko, I. Stachiv, A.- B. Wang and W. - C. Wang, "Analysis of the behavior of the vibrating fiber partially submerged in fluid," Journal of Wave Motion, submitted, April, 2008

To be submitted in early 2008

- [1] Joe Ho, Wei-Chih Wang, "Diamagnetic levitating generator system," IEEE Transaction on Magnetics, to be submitted in April.
- [2] Wei-Chih Wang, Yi-Lang Lyu, Per G. Reinhall "Electrorheological fluid 3-D force sensor," to be submitted in April.
- [3] Wei-Chih Wang, Chi-Leung Tsui, Alex Perez, Per G. Reinhall, "2-D fiberoptic display system," IEEE lightwavetechnology, to be submitted in May.

- [4] Cheng-Lin Chang, Wei-Chih Wang, Per G. Reinhall, "Viscometer using fiberoptic bendloss sensor," IEEE sensor journal, to be submitted in May.
- [5] Wei-Chih Wang, "conductive polymer strain gage sensor," IEEE sensor journal, to be submitted in May.
- [6] Wei-Chih Wang, Wei-Shyu Hua, Wen-Jong Wu, "Magnetostriction fiberoptic sensor," sensors and actuators, to be submitted in June.

Non-journal fully refereed publications

- [1] Wei-Chih Wang, S. Yee, P. Reinhall, "Optical viscosity sensor using forward light scattering", Sensor & Actuator Proc. for the Fifth Int'l Meeting on Chemical Sensors Rome, Italy 1994
- [2] Wei-Chih Wang, P. Reinhall, S. Yee, "Fluid viscosity and mass flow measurement using forward light scattering" SPIE Proc. 2574: 146-51, 1995
- [3] X.Zhu, E.Tran, W-C Wang, E.S.Kim, "Micromachined acoustic-wave liquid ejector", Hilton Head Solid-State Sensor and Actuator Workshop , 1996.
- [4] Wei-Chih Wang, Jeffrey Dee, William Ledoux, Bruce Sangeorzan, Per Reinhall, "Development of a directional sensitive pressure and shear sensor," in Proc. SPIE Vol. 4702, p. 212-220, 2002.
- [5] Wei-Chih Wang, Joe N. Ho, Per G. Reinhall, "Development of an optical waveguide cantilever scanner," in Proc. SPIE 4876, p72-83, 2002.
- [6] Wei-Chih Wang, Joe N. Ho, Per G. Reinhall, "Deep reactive ion etching of silicon using an aluminum etching mask," in Proc. SPIE 4876, p 633-640, 2002.
- [7] Wei-Chih Wang, Joe N. Ho, Per F. Reinhall, "Deep reactive ion etching of silicon using an aluminum etching mask," ASDAM '02. Conference Proceedings. Fourth International Conference on Advanced Semiconductor Devices and Microsystems, Oct 12-14, p 31-34, 2002
- [8] Wei-Chih Wang, Reynold Panergo, Per Reinhall, "Development of a microfabricated scanning endoscope using SU-8 based optical waveguide, " 2003 SPIE NDE health monitoring and diagnostics, SPIE 5047, p305-313.
- [9] Wei-Chih Wang, Reynold Panergo, Christopher Galvanin, William Ledoux, Bruce Sangeorzan, Per Reinhall, "A flexible micromachined optical sensor for simultaneous measurement of pressure and shear distribution on foot," 2003 SPIE NDE health monitoring and Diagnostics, SPIE 5047, p275-285.
- [10] Wei-Chih Wang, Reynold Panergo, Kasha Touloei, Per Reinhall, "Development of a microfabricated scanning endoscope using SU-8 based optical waveguide, " 2003 International Polymer fiber conference, SPIE 5047, p.98-101.
- [11] Wei-Chih Wang, Reynold Panergo, William Ledoux, Bruce Sangeorzan, Per Reinhall, "A PDMS based distributive shear/pressure sensor," 2003 International Polymer Fiber Conference, p.68-71.
- [12] Wei-Chih Wang, Reynold Panergo," Design and test of a microfabricated SU-8 optical scanner," SPIE 5394, 2004, p280-287.
- [13] Reynold Panergo, Wei-Chih Wang, William Ledoux, Bruce Sangeorzanb, Per Reinhall , "A flexible micromachined optical sensor for simultaneous measurement of pressure and shear force distribution on feet," UW Biomechanics Symposium, May, 2003
- [14] Chu-Yu Huang, Chao-Shih Liu, Reynold Panergo Cheng-Sheng Huang, Wei-Chih Wang, "Developments of a Force Image Algorithm for Micromachined Optical Bend Loss Sensor," 2005 SPIE NDE health monitoring and Diagnostics, SPIE 5768, p38-43
- [15] Reynold Panergo, Chao-Shih Liu, Benjamin Estroff, Wei-Chih Wang, "Polymeric waveguide design of a 2D scanner," 2005 SPIE NDE health monitoring and Diagnostics, SPIE 5768, p 450-460.

- [16] Joe Ho, Wei-Chih Wang, " Levitated motor using diamagnetic materials", 2005 Progress in Electromagnetics Research Symposium, Hangzhou, China, 2005, p89-91.
- [17] Wei-Chih Wang, Yi-Ru Lian, Chi-Ting Ho, Ching-Kong Chao and Wei-Ching Chuang, "A new novel means of transducing mechanical shear and tensile stress using a polymer optical grating sensor." Progress in Electromagnetics Research Symposium, Hangzhou, China, 2005, p92-95.
- [18] Wang Wei-Chih Wang, Joe Ho, Per Reinhall "Mathematical model for the dynamics of a optical fiber viscometer", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2006, SPIE6277
- [19] Christopher Takahshi, Hsiu-Jen Wang, Wei-Shu Hua, Per Reinhall, Wei-Chih Wang, "Polymeric waveguide design of 2D display system ," SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2006, SPIE6177.
- [20] Wei-Chih Wang, Chu-Yu Huang, Per Reinhall, "A wireless composite optical bend loss sensor for pressure and shear measurement," SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2006, SPIE6177.
- [21] Wei-Ching Chuang, Chi-Ting Ho, Ruey Fang Shyu and Wei-Chih Wang, "A new replication method to fabricate polymer waveguide," SPIE NDE health monitoring and diagnostics, San Diego, CA., 2006, SPIE 6177.
- [22] Joe Ho, Wei-Chih Wang." Static stability and plate spacing for diamagnetic levitating magnets," Progress in Electromagnetics Research Symposium, Tokyo Japan, 2006.
- [23] Joe Ho, Wei-Chih Wang," Exploration of possibility of levitating magnets using a non vertical configuration of suspending magnets," Progress in Electromagnetic Research Symposium, Tokyo Japan, 2006.
- [24] Wei-Chih Wang, Per Reinhall, "Viscosity measurement using intrinsic fiberoptic polarimetric sensor," SPIE NDE health monitoring and diagnostics, San Diego, CA., 2007, SPIE 6532, 65321P-1 to 11.
- [25] Wei-Chih Wang, Per Reinhall, "Optical and Mechanical Characterization of Microfabricated Optical Bend Loss Sensor for Distributive Pressure Measurement," SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2007, SPIE 6532, page 653217-1 to 6.
- [26] Chao-Shih Liu, Xin Liang, Wei-Chih Wang, "Composite fiberoptic sensor for shear and plantar pressure measurement," SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2007, SPIE 6532, page 65431k-1 to 10.
- [27] Gia-Wen Chou, Chao-Shih Liu, Per Reinhall, Wei-Chih Wang, "An offset multi-layered optic sensor for shear and pressure measurement," SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6935-77.
- [28] Cheng-Lin Chang, Alex Perez, Wei-Chih Wang, "fiberoptic bendloss viscosity sensor", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6935-49.
- [29] Alex Fedechencho, Ivo Starchiv, Joe Ho, Wei-Chih Wang, Anbang Wang." viscosity sensor based on the partially immersed fiber vibrations", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6935-67.
- [30] Wei-Chih Wang, Chi-Leung Tsui., "fiberoptic display system", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6931-22.
- [31] Wei-Chih Wang, Wei-Shu Hua, Wen-Jong Wu, "fiberoptic magnetostriction sensor", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6935-46.
- [32] Gia-Wen Chou, Chao-Shih Liu, Wei-Chih Wang, " Design of an offset multilayered optical fiber sensor," Proceedings of the 16th National Conference on Science and Technology of National Defense, p39-48, Nov., 2007
- [33] A. I. Fedorchenko, I. Stachiv, W.-C. Wang, and A.-B. Wang, "On the vibration of mechanical systems with piecewise linear properties." IC-ICAME 2008, July 2-4, 2008 Bangalore, India.
- [34] Nuckley, DJ; Linders, DR, and Wang, WC. Development of a Fiber-Optic Force

Sensing Glove to Provide Clinical Biomechanics Measurements. North American Congress on Biomechanics 2008. August 5-9, 2008: Ann Arbor, MI. **Abstract is up for the "Clinical Biomechanics Award" which "recognizes outstanding new biomechanics research targeting a contemporary clinical problem".**

Miscellaneous Patents submitted and/or awarded

US and International Patents awarded

- Integrated Optical Scanning Image Acquisition and Display (US patent #, 20040122328, WO2005/024496, AU-A-2004269796, CA 2534477)
- Polymer based electro-optic scanner for image acquisition and display (US #20050238277, UWIL# 3917P.1US, Our Ref. No.: 4735.P014, WO/2005/085945)
- **Polymer based distributive waveguide sensor for pressure and shear measurement (US patent # 20050232532, UWIL# 3918P.1US, Our Ref. No.: 4735.P015, WO/2005/085766)**

US and International Patents Submitted

- Two Dimensional optical scanning image system (UWIL# 7736P.1US, 4735.P027)
- Clinical Force Sensing Glove (U.S. Provisional Application 61/042,214)

Disclosures

More than 100 disclosures in last five years

Abstracts, letters, non-refereed papers

Project reports

- [1] Wei-Chih Wang, "Development of A Directionally Sensitive Pressure and Shear Sensor For Patients with Lower Limb Complications Associated with Diabetes ", submitted to RR&D Center for Excellence, VA Puget Sound Health Care System, October 2001.
- [2] Christopher Takahashi, Wei-Chih Wang, " Development of a wireless data acquisition system for shear sensor," submitted to RR&D Center for Excellence, VA Puget Sound Health Care System, October 2002.
- [3] Gus Class, Wei-Chih Wang, "Development of a multichannel data acquisition system for shear sensor," submitted to RR&D Center for Excellence, VA Puget Sound Health Care System, August 2003.

Other (web sites, software, etc.)

Classes' websites

Engr100 Introductory to Engineering Design

http://courses.washington.edu/engr100/Section_Wei/index.html

ME 557 Optical Method for Mechanical Measurement (Winter 2005 – present)

<http://depts.washington.edu/mictech/optics/me557>

STUT 500 Optical Waveguides, Devices and Application (June to September 2004)

http://depts.washington.edu/mictech/optics/taianan_2004

STUT 500 Optical Method for Mechanical Measurement (June to September 2005)

<http://depts.washington.edu/mictech/optics/me557>

STUT 500 Introductory to Micro Sensors and Actuators (June to September 2006)

<http://depts.washington.edu/mictech/optics/sensors>

OTHER SCHOLARLY ACTIVITY

Invited lectures and seminars

- Wei-Chih Wang, "Introduction to microsensors and microactuators," Department of Architecture, University of Washington, November 6, 2001
- Wei-Chih Wang, "Compact microwave communication systems", RF, Antennas, and Remote Sensing, University of Washington, August 5, 2002.
- Wei-Chih Wang, "Current status and outlook for micro sensors and actuators development at UWME," Center for Microtechnology, March 15, 2003.
- Wei-Chih Wang, "Micro-fluidic sensors and actuators for medical applications," University of Washington Microscale Life Sciences Center, June 25, 2003.
- Wei-Chih Wang, "Biomedical application using micro sensors and actuators," South Taiwan Technology University, Tainan, Taiwan, August 26, 2003.
- Wei-Chih Wang, "Development of a microfabricated scanning endoscope using SU-8 based optical waveguides," 12th International Conference on Polymer Optical Fiber, Seattle, WA., September 3, 2003.
- Wei-Chih Wang, "Optical waveguides, devices, applications", South Taiwan Technology University, Tainan, Taiwan, June to August 2004
- Wei-Chih Wang, " Microsensors and actuators in biomedical applications," National ChengKung University, Tainan, Taiwan, August 6th, 2004.
- Wei-Chih Wang, " MicroSensors and actuators in biomedical applications," National Taiwan University, Taipei, Taiwan, August 15th, 2004.
- Wei-Chih Wang, " Microsensors and actuators in biomedical applications," National Huwei University of Science and Technology, Huwei, Taiwan, August 19th, 2004.
- Wei-Chih Wang, "Micros canner for image acquisition", South Taiwan Technology University, Tainan, Taiwan, Decemeber, 16th, 2004.
- Wei-Chih Wang, "Optical method in mechanical analysis," South Taiwan Technology University, Tainan, Taiwan, June to September, 2005
- Wei-Chih Wang, "Optical waveguides, devices, applications," South Taiwan Technology University, Tainan, Taiwan, June 18th to September 5th, 2005
- Wei-Chih Wang, "Polymer based MEMS," South Taiwan Technology University, Tainan, Taiwan, June 18th to September 2nd, 2005
- Wei-Chih Wang, "Overview of MicroTechnology laboratory research", Department of Mechanical Engineering, National ChengKung University, Tainan, Taiwan, August 17th, 2005.
- Wei-Chih Wang, "composite sensors and actuators, devices, applications," South Taiwan Technology University, Tainan, Taiwan, June 30th to September 1st, 2006
- Wei-Chih Wang, "Overview of Micro Technology Laboratory research," Industrial Technology Research Institute of Taiwan, Department of Communication and Optoelectronics, July 15th, 2006
- Wei-Chih Wang, "Overview of Micro Technology Laboratory research", Department of Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan, August 23th, 2006.
- Wei-Chih Wang, "Overview of Micro Technology Laboratory research", Department of Applied Mechanics, National Taiwan University, Tainan, Taiwan, August 25th, 2006.
- Wei-Chih Wang, "Polymer based Microsensor and actuator for industrial and biomedical

- application”, Biomechanics seminar, University of Washington, October 26th, 2006.
- Wei-Chih Wang, “Optical sensors and applications,” at South Taiwan Technology University, Tainan, Taiwan, National Science Council of Taiwan Sponsored summer course for oversee scholars, Sept 1st to Sept. 15th, 2007
 - Wei-Chih Wang, “Polymer based distributive shear and pressure sensor”, UW graduate student seminar, University of Washington, Nov. 26th, 2007.
 - Wei-Chih Wang, “Optical Sensors”, Invited speaker at South Taiwan Technology University, Tainan, Taiwan, National Science Council of Taiwan Sponsored summer course for oversee scholars, July 1st to July. 15th, 2008
 - Wei-Chih Wang, “Electro-Optic Endoscope”, Faculty position interview, National Taiwan University, March 21st, 2008
 - Wei-Chih Wang, “Eelectro-Optic Endoscope”, Faculty position interview, University of Washington, April 11th, 2008
 - Wei-Chih Wang, “Overview of MicroTechnology Laboratory,” National Taiwan Central University, April 17th, 2008

Presentations given at conferences

- [1] Wei-Chih Wang, S. Yee, P. Reinhall, "Optical Viscosity Sensor Using forward Light Scattering", Sensor & Actuator Proc. for the Fifth Int'l Meeting on Chemical Sensors Rome, Italy 1994
- [2] Wei-Chih Wang, P. Reinhall, S. Yee, "Fluid viscosity and mass flow measurement using forward light scattering" SPIE Proc. 2574: 146-51, 1995
- [3] X.Zhu, E.Tran,W-C Wang, E.S.Kim,"Micromachined acoustic-wave liquid ejector", Hilton Head Solid-State Sensor and Actuator Workshop , 1996.
- [4] Wei-Chih Wang, Jeffrey Dee, William Ledoux, Bruce Sangeorzan, Per Reinhall, “Development of a directional sensitive pressure and shear sensor,” San Diego, March, 2002
- [5] Wei-Chih Wang, Joe N. Ho, Per G. Reinhall, “Development of an optical waveguide cantilever scanner,” Galway, Ireland, September, 2002.
- [6] Wei-Chih Wang, Joe N. Ho, Per G. Reinhall, “Deep reactive ion etching of silicon using an aluminum etching mask,” Galway, Ireland, September, 2002.
- [7] Wei-Chih Wang, Reynold Panergo, Per Reinhall, “Development of a microfabricated scanning endoscope using SU-8 based optical waveguide, “ 2003 SPIE NDE health monitoring and Dianostics, San Diego, March, 2003.
- [8] Wei-Chih Wang, Reynold Panergo, Chrisopher Galvanin, William Ledoux, Bruce Sangeorzan, Per Reinhall, “A flexible micromachined optical sensor for simultaneous measurement of pressure and shear distribution on foot,” 2003 SPIE NDE health monitoring and Diagnostics, San Diego, March 2003.
- [9] Wei-Chih Wang, Reynold Panergo, Kasha Touloui, Per Reinhall, “Development of a microfabricated scanning endoscope using SU-8 based optical waveguide, “ 2003 International Polymer fiber conference, Seattle, September, 2003.
- [10] Wei-Chih Wang, Reynold Panergo, William Ledoux, Bruce Sangeorzan, Per Reinhall, “A PDMS based distributive shear/pressure sensor,” 2003 International Polymer Fiber Conference, Seattle, September, 2003.
- [11] Wei-Chih Wang, Reynold Panergo,” Resonant optical scanner using cantilever waveguide,” SPIE NDE health monitoring and Dianostics, San Diego, March, 2004.

- [12] Wei-Chih Wang, Chu-Yu Huang, William Ledoux, Bruce Sangeorzan, Per Reinhall, "A polymer based distributive shear/pressure sensor," SPIE NDE health monitoring and Diagnostics, SanDiego, March, 2005.
- [13] Wei-Chih Wang, Reynold Panergo, "Resonant optical scanner using cantilever waveguide," SPIE NDE health monitoring and Diagnostics, San Diego, March, 2005.
- [14] Wei-Chih Wang, "A new replication method to fabricate polymer waveguide," SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2006
- [15] Wang Wei-Chih Wang, "Mathematical model for the dynamics of a optical fiber viscometer", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2006.
- [16] Wei-Chih Wang, "Viscosity measurement using intrinsic fiberoptic polarimetric sensor," SPIE NDE health monitoring and diagnostics, San Diego, CA., March 22, 2007
- [17] Wei-Chih Wang, "Optical and Mechanical Characterization of Microfabricated Optical Bend Loss Sensor for Distributive Pressure Measurement," SPIE NDE health monitoring and Diagnostics, San Diego, CA., March 23, 2007
- [18] Wei-Chih Wang, "Optical viscosity sensor based on the partially immersed fiber vibrations," SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6935.
- [19] Wei-Chih Wang, "fiberoptic display system", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6931.
- [20] Wei-Chih Wang, "fiberoptic magnetostriction sensor", SPIE NDE health monitoring and Diagnostics, San Diego, CA., 2008, SPIE 6935.

Professional society memberships

IEEE (1986-1996, 2006- present)
 Eta Kappa Nu (1996- present)
 OSA (1992-1998)
 SPIE (2004 -present)

GRADUATE STUDENTS

Chaired Doctoral Degrees

| Student Name | Dissertation Title | Current Employer | Completed |
|-------------------|--|------------------|---|
| Joe Ho | Diamagnetic Levitating Rotor | | Feb., 2008 |
| Cheng-Sheng Huang | Feasibility study of using polymeric Bragg grating waveguide device for pressure and shear sensing | | June, 2008 (pass general) |
| Chu-Yu Huang | Liquid crystal based Fourier Transform IR spectrometer | | June, 2009 (second year after qualify) |
| Hsiu-Jen Wang | Polymer based Electro-optic Scanner | | 2010 (first year after qualify) |
| Cheng-lin Chang | Rapid prototyping machine for meta material construction | | 2012 (first year after qualify) |

| | | | |
|-------------|--|--|-------------------------------------|
| Ke-Bin Gu | undecided | | 2013 |
| Wei-Shu Hua | (Co-Chaired) Student at National Taiwan University, Design and fabrication of artificial eye | | 2011 (second year after qualify) |

Chaired Masters Degrees

| Student Name | Level of Supervision | Thesis/Paper Title | Completed |
|-------------------|--|---|------------|
| Joe Ho | Thesis (Co-Chaired) | Numerical Investigation for Nonlinear Behavior of a fiberoptic viscometer | June,2002 |
| Reynold Parnergo | Thesis (chaired) | Development of an SU-8 resonant optical waveguide scanner | June,2006 |
| Jian Shiao | Course work (chaired) | Electro optic micro scanner | June,2006 |
| Chai-Hsieng Wang | Course work | | June,2006 |
| Jonathan R. Thorn | Thesis (chaired) | Development of a Prototype Self-Configuring Building Block | June,2007 |
| Jefferey Dee | Course work (chaired) | | 2008 |
| Benjamin Estroff | Thesis (chaired) | Multifunctional surgical glove | 2009 |
| Fu-Cheng Chang | Thesis (chaired) | Electrorheological based capacitor sensor | 2010 |
| Chi-Leung Tsai | Thesis (chaired) | undecided | 2010 |
| Kung-Lun Wu | Thesis (Co-Chaired) Student from Southern Taiwan University of Technology | Development of a SU-8 microdisplay system using FPGA controller | June,2005 |
| Chi-Jie Fu | Thesis (Co-Chaired) Student from Southern Taiwan University of Technology | PDMS based microfabricated waveguide sensor for 3-D force measurement | June,2006 |
| Wei-Shu Hua | Thesis (Co-Chaired) Student from Southern Taiwan University of Technology | Development of conductive and ferromagnetic polymers | June,2006 |
| Yi-Lang Lyu | Thesis (Co-Chaired) Student from Southern Taiwan University of Technology | Development of an electrorheological fluid 2-D force sensor | June,2008 |
| Wei-Shyu Lin | Thesis (Co-Chaired) Student from Southern Taiwan University of Technology | Development of a magnetostrictive fiberoptic sensor | June, 2009 |

Other significant student supervision

| Student Name | Level of Supervision | Thesis/Paper Title | Completed |
|-------------------------|--|--|------------|
| Michael Philetus Weller | Master Thesis (reading committees) | self-assembling building blocks | June,2003 |
| Chao-Shih Liu | PhD Thesis, membership on degree committees) | New Techniques for Predictive Maintenance of Roller Bearings | June,2005 |
| Chia-Hsien Hsu | PhD Thesis (reading committees) | Elastomeric Microfluidic Devices for Biological Studies | Mar., 2006 |

RESEARCH ACTIVITIES

Sponsored research

Funded

Grant number # 119024 Eric J. Seibel (PI) \$40,000 7/1/99-6/30/01
(Completed)
Washington Technology Center MEMS Research Fund
“Resonant waveguide cantilever designed as MEMS optical scanner”
Mentored students who are co-authors on publications and presentations: Mark Fauver
Fraction of funding allocated to candidate: 75%
Role: Research Scientist

Grant number Bruce J. Sangeorzan (PI) \$11,341 8/30/03-9/30/03
(completed) Department of Veterans Affairs
“Center for excellence in limb loss prevention and prosthetic engineering “
Materials supplies and equipment fund
Mentored students who are co-authors on publications and presentations: Jeffery Dee, Reynolds Panergo, Chrisopher Galvanin, Kasha Toulouei
Fraction of funding allocated to candidate: 100%
Role: subcontract

Grant number Bruce J. Sangeorzan (PI) \$ 8098 8/30/04-9/30/04
(completed) Department of Veterans Affairs
“Center for excellence in limb loss prevention and prosthetic engineering “
Equipment and salary fund
Mentored students who are co-authors on publications and presentations: Jeffery Dee, Reynolds Panergo, Chrisopher Galvanin, Kasha Toulouei
Fraction of funding allocated to candidate: 100%
Role: subcontract

Grant number Bruce J. Sangeorzan (PI) \$11,976 8/30/05-9/30/05
(completed) Department of Veterans Affairs
“Center for excellence in limb loss prevention and prosthetic engineering “
Equipment and salary fund
Mentored students who are co-authors on publications and presentations: Chu-Yu Huang, Chao-Shih Liu, Reynold Panergo Cheng-Sheng Huang
Fraction of funding allocated to candidate: 100%

Role: subcontract

Grant number 1 R21 EB003406 Wei-Chih Wang (PI) \$399,462 4/01/04/-3/30/07
National Institutes of Health
In-shoe shear stress sensor for diabetic patients
PI and Co-PI: Wei-Chih Wang (primary), Per G. Reinhall and William Ledoux (secondary)
Mentored students who are co-authors on publications and presentations Cheng-Sheng Huang
Fraction of funding allocated to candidate: 96%
Role: PI

Grant number: na Wei-Chih Wang (PI) \$46,936 6/1/05/-12/31/06
UW TGIF
“Development of an ultrahigh resolution, variable field of view endoscope using a novel electro-optic scanner”
PI and Co-PI: Wei-Chih Wang (primary), Per G. Reinhall and Sum Lee (secondary)
Mentored students who are co-authors on publications and presentations: Cheng-Sheng Huang, Hsiu-Jen Wang
Fraction of funding allocated to candidate: 100%
Role: PI

Grant number: n/a Wei-Chih Wang (PI) \$10,000 7/01/05/-8/30/05
Southern Taiwan University of Technology
Materials and supplies fund
Mentored students who are co-authors on publications and presentations: Wei-Shu Hua, Chi-Jie Fu, Cheng-Sheng Huang, Chu-Yu Huang
Fraction of funding allocated to candidate: 100%
Role: PI

Grant number 94wfa0102446 AnBang Wang (PI) \$120,000 9/01/06-7/31/09
Taiwan National Science Council
International collaboration research
“Integrated optical scanning endoscope”
PI and Co-PI: Anbang Wang (primary), Wei-Chih Wang (primary)
Mentored students who are co-authors on publications and presentations: Joe Ho, Ivo Stachiv
Fraction of funding allocated to candidate: 20%
Role: International Collaboration-PI

Grant number 1 R21 EB004564 Wei-Chih Wang (PI) \$398,462 6/01/06/-5/31/08
National Institutes of Health
“Development of a novel electro-optic endoscope”
PI and Co-PI: Wei-Chih Wang (primary), Per G. Reinhall and Sum Lee (secondary)
Mentored students who are co-authors on publications and presentations: Hsiu-Jen Wang
Fraction of funding allocated to candidate: 99%
Role: PI

Grant number: n/a Wei-Chih Wang (PI) \$10,000 7/01/06/-8/30/06
Southern Taiwan University of Technology
Materials and supplies fund
Mentored students who are co-authors on publications and presentations: Yi-Lang Lyu, Cheng-Sheng Huang, Chu-Yu Huang
Fraction of funding allocated to candidate: 100%

Role: PI

Grant number Bruce J. Sangeorzan (PI) \$11,976 8/30/06-9/30/06
Department of Veterans Affairs
“Center for excellence in limb loss prevention and prosthetic engineering “
Equipment fund
Fraction of funding allocated to candidate: 100%
Role: subcontract

Grant number 94wfa0102446 Choa-Shih Liu (PI) \$15,000 129/01/06-11/31/07
Taiwan National Science Council
International collaboration research
“Composite fiber sensor for plantar pressure and shear measurement”
Mentored students who are co-authors on publications and presentations: Gia-Wen Chou
Fraction of funding allocated to candidate: 80%
Role: International collaboration-PI

Grant number Thomas Matula (PI) \$10,000 6/1/08-10/01/08
NIHR01
“Embeddable Shockwave sensor”
Mentored students who are co-authors on publications and presentations: Kebin Gu
Summer project
Fraction of funding allocated to candidate: 100%
Role: subcontract

Grant number Bruce J. Sangeorzan (PI) \$11,976 6/30/08-9/30/08
Department of Veterans Affairs
“Center for excellence in limb loss prevention and prosthetic engineering “
Mentored students who are co-authors on publications and presentations: Yih-Yan Lin
Equipment fund
Fraction of funding allocated to candidate: 100%
Role: subcontract

Pending

Grant number R01 Lih lin (PI) \$2,511,124 5/08/09/-4/30/14
National Institutes of Health
“A new integrated endoscope system”
Fraction of funding allocated to candidate: 20%
Role: Co-PI

Grant number R01 Rahul Kuver (PI) \$1,250,000 12/1/08-11/30/12
National Institute of Health
CFTR and mucus gel viscosity in gallbladder epithelial cells
Fraction of funding allocated to candidate: 10%
Role: Co-PI

Grant number Pending Wen-Pin Shih (PI) \$150,000 7/01/08-6/30/11
Taiwan National Science Council
International collaboration research

“Design and fabrication of artificial eye”
Fraction of funding allocated to candidate: 100%
Role: Co -PI

Grant number R21 Wei-Chih Wang (PI) \$400,000 6/1/08-5/31/10
National Institute of Health
“A smart prosthetic liner”
Fraction of funding allocated to candidate: 100%
Role: PI

Grant number R21 Wei-Chih Wang (PI) \$400,000 6/1/09-5/31/11
National Institute of Health
“Micro Viscometer for study mucous viscosity from gallbladder epithelial cells”
Fraction of funding allocated to candidate: 100%
Role: PI

Grant number R21 David Nuckley (PI) \$400,000 6/1/09-5/31/11
National Institute of Health
“Clinical force sensing glove”
Fraction of funding allocated to candidate: 50%
Role: PI

Grant number Per Reinhall (PI)
BOEING Co.
Vibration Harvesting for Wireless Aircraft Sensors and Actuators Fraction of funding allocated to
Whitepaper
Role: Co-PI

Grant number Per Reinhall (PI)
“Miniature Underwater Directional Acoustic Sensor”
DARPA white paper
Role: Co-PI

Grant number Per Reinhall (PI)
“Jellyfish Robotics”
DARPA white paper
Role: Co-PI

Un-sponsored research

Microbend loss glove sensor
(9/06- present)
Publication and future funding

Fiberoptic Shockwave sensor
(1/08-present)
Future funding and publication

Fiberoptic magnetostriction sensor
(9/05 –present)
Publication

Bite sensor
(6/06-present)
Future finding and publication

Distributive 3-D force waveguide sensor
(6/02-present)
Future funding and publication

Active prosthetic liner
(9/05-present)
Future funding

Fluid viscosity measurement using fiber-optic Fabry-Perot interferometer
(12/91 to present)
Future funding

Directional strain measurement using fiber-optic polarimetric sensor
(12/94 to present)
Publications and Future funding

Strain and viscosity measurement using elliptical core two mode fiber-optic sensor
(6/93 to present)
Publications and Future funding

Use of Nonlinear Vibration in Liquid Viscosity Sensing
(12/95 to present)
Publications

Compact integrated 3-D microfabrication system for meta material
(01/05 to present)
Patent and future funding

Flexible polymer (electrostriction, magneto stricion, electrorheological fluid, dielectric) sensors
and actuators
(03/01-present)
Future funding

Directional microphone using micro fabricated hot wire sensor
(06/96- present)
Publication

Polymer based multi-parameter sensor system (smart skin)
(03/01-present)
Future funding

3-D microfabrication technique for high frequency devices
(06/96- present)

Publications and Future funding

Fiber optic based distributive fault line detection system
(09/99 to present)

Publications and Future funding

Electro-optic based IR spectrometer for health monitoring
(03/02 to present)

Future funding

Liquid Crystal based SPR spectrometer system
(06/06 to present)

Publications and Future funding

Conductive and capacitive glove sensor for position and texture sensing
(09/06-present)

Publication and Future funding

Antonymous robotic mapping unit
(12/01 to present)

Undergraduate research

Self Assembly modular robot
(03/03 to present)

Publications and Future finding

Micro-Machined Acoustic Wave Liquid Ejector
(02/96 to present)

Publications

Dome-shaped diaphragm micro-transducers
(02/96 to present)

Publications

Fiberoptic and microfabricated waveguide microdisplay system
(09/02-present)

Publications

Integrated optical scanning image acquisition and sensing device
(09/99-present)

Future possible funding from PENTAX (PENTAX has signed the optional agreement to license)

TEACHING

List of all undergraduate and graduate courses taught.

Undergraduate Level

EE 320 Analog Circuit Design Lab (Fall 1992 and Winter 1993)
3 credits

~ 40 students in 3 sections
Student evaluation was not available

EE 312 Electromagnetic and Solid state Lab (Spring 1993)
3credits
~ 30 students
Student evaluation was not available

EE371 Electromagnetic Lab (Fall 1993)
5credits
~ 50 students
Student evaluation was not available

Engr100 Introductory to Engineering Design (Spring 1998- present: every quarter except summer quarter, total of 30 quarters taught)
5credits
Course website and materials can be download from:
http://courses.washington.edu/engr100/Section_Wei/index.html
Average student enrollment 32 students
Student evaluation was given

Graduate Level

ME 557 Optical Method for Mechanical Measurement
Course materials can be download from:
<http://depts.washington.edu/mictech/optics/me557>
(Spring 2005, Winter 2006, winter 2007, Winter 2008)
3 credits
~ 6 to 12 students
Student evaluation was given

STUT 500 Optical Waveguides, Devices and Application
Course materials can be download from:
http://depts.washington.edu/mictech/optics/tainan_2004
(June to September 2004)
40 students
No student evaluation

STUT 500 Optical Method for Mechanical Measurement
Course materials can be download from:
<http://depts.washington.edu/mictech/optics/me557>
(June to September 2005)
12 students
No student evaluation

STUT 500 Introductory to Micro Sensors and Actuators
Course materials can be download from:
<http://depts.washington.edu/mictech/optics/sensors>
(June to September 2006)
15 students
No student evaluation

STUT 500 Introductory to Micro Sensors and Actuators

Course materials can be download from:

<http://depts.washington.edu/mictech/optics/sensors>

(June to September 2007)

12 students

No student evaluation

Supervision of undergraduate independent study (design projects and research).

- Advised more than 100 undergraduate students in the undergraduate Student Research Program, 1998 to present, some of them are listed:
Jefferey Dee, Joshua Weinstein, Christopher Takahashi, Billy Chow, Tuan Le, Gus Class, Samuel Radochonski, Mike Wong, Michelle Bler, Khsha Touloei, Michael Pheletus, Christopher Ray Nichols, Mark Pacpaco, Joe Ho, James Etcorn, Coji Kuwahara, Jo Ho, Colin Liles, Robert Lin, Christopher Galvanin, Michelle Gamble, Zac Jackson, Daniel Ortiz, Daniel Chang, Daniel Chen, Loren Wallace, Taguchi Blayne H P ,Reynold Panergo, Cheng-Sheng Huang, Ting Wang, Neing Wang, Al Toweilly, Mathew Hummer, Geff Greenleaf, Nigel Steere, Kritramom Tejavimbhya, Jake Hitero, Geoffery Greenleaf, Josh Weltman, Yohan K. Han, Ann Ng, David Lanning, Mechelle Maureene ,Zac Hendrickson, Chanadejh Sakchalathorn, Richard Yin, Cheng Kim, Kevin Leong, Kevin Wang, Chanadejh Sachalathorn, Steve Evans, Mike Hansen, Jonathan Nichols, Betty Wang, Jeffery Wimberley, Annie (Wang, Maggie (Ti) Wang, Mark Pacpaco, Melissa Wang, Huyen Nguyen, Tien Ngyuen, George Stults, Huam Pham, Tim Cass, Dung Nguyen, Hamed Khoojinian, Inwoo kim, Daniel Kim, Daniel Chang, Amber , Nicolas noel Stephensen., Billy Chow, Ignacio Shin, Christopher K Willey, Zac Hendrickson, Jae hyun Kim, David Wu, Kevin Leung, Thurston, Ryan, Benjamin Burt Estroff, Gurmeet Singh Ghumman, Brian Porter, Keegan Wincewicz, Chong S. Kim, Raymond Chung, Josie Imlay, Zia Quadir, Abram Clark, , Colin Liles, Inwoo Kim, Lee, Jane Juin, Moseid, Benjamin Lawrence, Josie Imlay, Tri Pham, Christopher lee, Jak Heitaro, Cameron Maegara Lee, Billy Tuang, Shieng Liu., William W-T. Sung, Houston Mooers, Tri Pham, Lawrence Lai ,Tomas Pulmano, Aimi Shaari Ahmad-Shukri, Anna Leoung, Nathan Richard Keech, Minhphat Ngoc Nguyen, Balatero, David John , Briant, Colin Thomas, Dillon, Julian Roy , Park, Kony , Storz, Joshua Jonathan , Weiss, Allen Michael Devoe , Art Coons, Huge Tmopkins , Juan Pinzon, Cassidy Werner, Alex Perez., Sean Pakani , Alec Denson, Morgan Jane Eastman Lorenz, Tseng, Hsiu-Yang, Gary Hwang, Fai-Hon Lau, Chi-Leung Tsui, Arun Reddy, Matiah Shaman , David Linders, Patrick Byrne, Craig Williams, William Soetanto, Kevin Luoie, Travis Corigliano, Cameron Skyler Lind, Massie Loh, Alex Malone, Brad Bicknell, Brian Christin, Mack Talcott.
- More than 45 credit hours per year
- Christopher Takahashi, Jeff Dee, Joshua Weinstein, Samuel Radochonski(twice), Alex Perez (twice), Hsiu-Yan Tsai, are recipients of Mary Gates Undergraduate Research Fellowships (2002-2008)
- David Linders is recipient of Levison Scholars Fellowship (2007-2008)
- David Linders, Patrick Byrne, Hsiu-Yang Tseng, recipients of Dean's undergraduate research fund (2008)

List of other teaching experience (short courses, workshops, and other educational programs)

- Wei-Chih Wang, "Biomedical application using micro sensors and actuators," Workshop, South Taiwan Technology University, Tainan, Taiwan, August 26, 2003.

- Wei-Chih Wang, “Optical waveguides, devices, applications”, South Taiwan Technology University, Tainan, Taiwan, June to August 2004
- Wei-Chih Wang, “Overview of MicroTechnology laboratory research”, Department of Mechanical Engineering, National ChengKung University, Tainan, Taiwan, August 17th, 2005.
- Wei-Chih Wang, “Optical method in mechanical analysis,” South Taiwan Technology University, Tainan, Taiwan, June to September, 2005
- Wei-Chih Wang, “Optical waveguides, devices, applications,” South Taiwan Technology University, Tainan, Taiwan, June 18th to September 5th, 2005
- Wei-Chih Wang, “Polymer based MEMS,” South Taiwan Technology University, Tainan, Taiwan, June 18th to September 2nd, 2005
- Wei-Chih Wang, “composite sensors and actuators, devices, applications,” South Taiwan Technology University, Tainan, Taiwan, June 30th to September 1st, 2006
- Wei-Chih Wang, “Overview of MicroTechnology laboratory research,” Industrial Technology Research Institute of Taiwan, Department of Communication and Optoelectronics, July 15th, 2006
- Wei-Chih Wang, “ Optical sensors and applications,” at South Taiwan Technology University, Tainan, Taiwan, National Science Council of Taiwan Sponsored summer course for oversee scholars, Sept 1st to Sept. 15th, 2007
- Wei-Chih Wang, “Optical Sensors”, Invited speaker at Taiwan HuFang University, Taipei, Taiwan, July 1st to July. 15th, 2008

Professional society and other service

- Program committee member Conference on NDE for Health Monitoring and Diagnostics, SPIE Int'l Symposia, San Diego, CA., 2003 to present.
- Serve in Sensors & Transducers Journal: Editorial Advisory Board, 2005- present
- Serve in Panel Reviewing Committees for National Science Foundation - Medical Devices Panel - P070699, March 12th 2007
- Ad hoc reviewer for IEEE Lasers and Electro-Optics Society
- Ad hoc reviewer for Optics Communications Journal , 2007- present
- Ad hoc reviewer for IEEE transaction on robotics, 2007- present
- Ad hoc reviewer for International Journal of Optomechatronics, 2007- present
- Ad hoc reviewer for IEEE Industrial Electronics Society, 2007- present
- Ad hoc reviewer for Journal of Biomechanics, 2007- present
- Ad hoc reviewer for Sensors and Actuators, 2007- present

Community service

- Faculty Mentor for Seattle YMCA outreach program, April 2001.
- Faculty host for lab visit for 5th graders from Seattle MESA program, April 11th, 2008

All other service

- Japanese Baptist Church Choir director (2001- 2004)
- Japanese Baptist Church Worship Committee (2000-2003)
- Chinese Gospel Chorale (1998 to present)

Dr. Wei-Chih Wang
Curriculum Vitae
5/21/2008

- The Seattle Tudor Choir (1993 to present)
- Provide Music for Monthly Sunday service at Nikei Menor, Seattle (1998- present)