



**Dr. Lo, Yu-Lung**  
**Distinguished Professor, Department of Mechanical Engineering**  
**National Cheng Kung University, Tainan, Taiwan**  
**(O) (06)2757575-62123; loyl@mail.ncku.edu.tw**

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<a name="1">Academic Background (institutions, degrees, dates)</a>:

1. Mechanical Engineering, University of Maryland at College Park, Ph.D., December 1995.
2. Mechanical Engineering, University of Maryland at College Park, MS, November 1992.
3. Mechanical Engineering, National Cheng Kung University, Tainan, Taiwan, June 1985.

Ph.D. Dissertation: Optically Passive Fiber Sensors for Dynamic Studies Using Doppler Velocimeter and White-Light Interferometry, University of Maryland, College Park, MD 20742, 1995. Under Dr. J.J. Sirkis's Supervision.

Master Thesis: Optical Fiber Sensors for Mechanical Measurements, University of Maryland, College Park, MD 20742, 1992. Under Dr. J.J. Sirkis's Supervision.

Military Service (branch, rank, dates):

1. Military Obligation in Air Force, Technical Sergeant (Aug. 1985 to July 1987).

<a name="r">Research Background:</a>

1. Optical Fiber Sensors and Signal Processing
2. Experimental Mechanics by Optical Methods
3. Passive Components on Optical Fiber Communications
4. Precision Measurements by Optical Methods
5. Precision Measurements in Liquid Crystal Optical Properties
6. Near-field Optics

Professional Occupations (beginning with current position):

1. Director, Instrument Development Center (2010/2 ~ )
2. Director, NSC Instrument Center at NCKU (2010/2 ~ )
3. Distinguished Professor, Department of Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (2006/8 to ~ )
4. Professor, Department of Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (2002/8 to ~ )
5. Affiliate Professor, Institute of Nanotechnology and Microsystem Engineering, National Cheng Kung University, Tainan, Taiwan (2005/8 ~ )
6. Associate Head, Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (2002/8 to 2005/7)

7. Director of Machine Shop, Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (2002/8 to 2005/7)
8. Associate Professor, Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (1999/8 to 2002/7).
9. Affiliate Assistant Professor, Mechanical Engineering, National Chung Cheng University, Chia-Yi, Taiwan. (1999/2 to 2000/01)
10. Assistant Professor, Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (1997/3 to 1999/7).
11. Lecturer, Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (1996/8 to 1997/2).
12. Engineer, Industrial Technology Research Institute (ITRI) at Opto-Electronics & Systems Lab. (1996/2 to 1996/7).
13. Assistant Engineer, Yue-Loong Motor Engineering Center (1987/8 to 1989/4).

Memberships in Professional Organizations:

1. Member of Society for Experimental Mechanics (SEM).

Public Service (community organizations, public appointments, etc.):

1. Society of Experimental Mechanics (SEM) in USA: Chair in Technical Division of Optical Methods, 2008.
2. Society of Experimental Mechanics (SEM) in USA: Secretary in Technical Division of Inverse Problem Methodologies, 2005-2007.
3. Society of Experimental Mechanics (SEM) in USA: Secretary in Technical Division of Optical Methods, 2005.
4. Asian Committee for Experimental Mechanics (ACEM): Steering Committee, 2005-now.
5. Secretary (China Mechanical Engineer Association, Kaohsiung City Branch, Taiwan, ROC, 2003 to 2005)
6. Associate Secretary (Republic of China Mechanics Association, Taiwan, ROC, 2003 to 2005)
7. Vice Head in Education Section (Republic of China Mechanics Association, Taiwan, ROC, 2006 to 2008)
8. **Guest Co-Editor** with Prof. P. Fabrice on Journal of Experimental Mechanics, Special Issue on “Applications of Inverse Problem Methodologies in Experimental Mechanics” about Optical Methods, 2006-2007.
9. **Editorial board member**, Journal of Recent Patents on Signal Processing, Bentham Science Publishers, 2009 -.
10. **Associate Editor and Editorial board member**, Photonic Sensors, Springer, Germany, 2010-2014.

Honors:

1. **Distinguished Professor**, Department of Mechanical Eng., National Cheng Kung University, Tainan, Taiwan (2006/8 to ~ )

2. Excellence in Research Award, College of Engineering, National Cheng Kung University, 2007.
3. The First Class Research Award by National Science Council in Taiwan, (2005-2006)
4. A-Class Research Award by National Cheng Kung University, 2006.
5. Dr. Wu, Ta-You Award for Young Researchers, National Science Council, Taiwan, 2002. (Dr. Wu, Ta-You was President of Academia Sinica from 1983 to 1994)
6. Excellent Research Awards by Department of Mechanical Engineering, National Cheng Kung University, 2004 and 2006.
7. Research Creative Award for Undergraduate Student Projects by National Science Council in Taiwan, 1998, 2000.
8. Awards on Competition in Electro-Optic System issued by Ministry of Education in Taiwan, 2002 and 2004.
9. Bronze Award on Competition in Mechanical Engineering Master thesis issued by HIWIN TECHNOLOGIES CORP., World Leader in Linear Motion and Control Technology, in Taiwan, 2006. (400,000 NT dollars award)
11. Golden Award on Competition in Opto-electric System Design in Taiwan, 2008. (200,000 NT dollars award)
12. Included in *The International Directory of Distinguished Leadership*, published by America Biographical Institute, Inc., 2000.
13. Included in Who's Who in the World, 18<sup>th</sup> Edition, December 2000 and etc.
14. Included in Who's Who in Science and Engineering, October, 2001 and etc.

Other Activities:

1. Organize a Section of Sensors and Actuators-2 (SA-2) for The Institute of Smart Structures and Systems (ISSS) (India)-SPIE'99, International Conference on Smart Materials, Structures and Systems, 7-10 July, 1999.
2. Organize a Section of Optical Fiber Sensors, the 3rd International Conference on Experimental Mechanics ICEM 2004, Singapore, 2004.
3. Organize a Section for ICEM 13, International Conference on Experimental Mechanics Experimental Analysis of Nano and Engineering Materials and Structures, Alexandroupolis, Greece, July 1-6, 2007.
4. Invited Talk and Invited paper in the Institute of Smart Structures and Systems (ISSS) (India)-SPIE'99, International Conference on Smart Materials, Structures and Systems, 7-10 July, 1999. Invited Talk and Invited Paper Titled "Optical Fiber Sensor Development at the National Cheng Kung University".
5. Section Chair: Sensors and Actuators-2 (SA-2). The Institute of Smart Structures and Systems (ISSS) (India)-SPIE'99, International Conference on Smart Materials, Structures and Systems, 7-10 July, 1999.
6. Section Chair: Optical Fiber Sensors, the 3rd International Conference on Experimental Mechanics ICEM 2004, Singapore, 2004.
7. Section Invited Speaker, Title: Optical Parameter Measurements in Linear Birefringence Media, OPT2003 (Conference on Electro-Optic Technology) in Taiwan.
8. Section Invited Speaker, Title: New Designs on Fiber Bragg Grating Filters for Optical Fiber Communications, OPT2005 in Taiwan.
9. Committee for OPT in Taiwan, 2002, 2003, 2004, 2005.
10. Committee for Conference on China Mechanical Engineer Association in Taiwan, 2002, 2003, 2004.

11. Project Review Committee for National Science Council in Taiwan, 2006.
12. International Conference STFOC'05, a technical committee member.
13. International workshop on sensor and equipment (IWSE'06), a Technical Program Committee, 2006.
14. CO-CHAIR in a technical session, the SEM Annual Conference & Exposition on Experimental & Applied Mechanics, St. Louis, Missouri, Monday, June 5 - Wednesday, June 7, 2006.
15. Lecture in Topic of Fiber Bragg Gratings on Optical Fiber Communications, Photonics Industry & Technology Development Association (PIDA), Taiwan.
16. Lecture in Topic of Excimer Laser Applications in Fiber Bragg Gratings, Tainan Science Based Industrial Park, Taiwan.
17. Lecture in Topic of Passive Components on Optical Fiber Communications, Tainan Science Based Industrial Park, Taiwan.
18. Invited Speaker, "Fiber Bragg Gratings in Multiple-Parameters Extraction and their Applications in Sensors and Fiber Communications," 2<sup>nd</sup> International Forum for Development and Industrialization of Optical Fiber Sensor, China (IFDI-OFS 2006)
20. Invited to be Technical Committee, International Conference on Advanced Manufacture, Taiwan, Nov. 2007.
21. Invited to be Committee Member, International Conference on Optical Design and Fabrication, Taiwan, June 2008.
22. Invited to be International Advisory Committee, 9<sup>th</sup> International Symposium on Laser Metrology, 30 June-2 July 2008, Singapore.
23. SEM, Optical Metrology 2008, International Symposium on "Optical Metrology in Industrial, Medical, and Daily Life Applications," **Chair and organized** by Cosme Furlong, Worcester Polytechnic Institute; **Yu-Lung Lo**, National Cheng Kung University (Taiwan ROC); and Ramon Rodriguez-Vera, Centro de Investigaciones en Optica (Mexico)
24. Section Organizer on Optical Fiber Sensors, SEM 2008.
25. Section Organizer with C. Furlong and R. J. Pryputniewicz on MEMS and Nanotechnology for Optical Metrology, SEM 2008.
26. Invited talk, "Developments on highly sensitive optical fiber gas sensors and possibly integrated with an apertureless scanning near-field optical microscopy for biocell sensing," The 1<sup>st</sup> Asia-Pacific Optical Fiber Sensors Conference (APOS-2008) held November 7-12, 2008 in Chengdu, Sichuan, China.
27. Invited Lecture, "Full-Field Measurements in the Principal Axis and Phase Retardation of Linear Birefringence Materials in Full-Scale Range," The International Conference on Experimental Mechanics, Nan-Jing, China, 2008 (ICEM 2008)
28. **Plenary Talk**, "From Photoelasticity to Heterodyne Interferometer-New Application and Research," The 12<sup>th</sup> Experimental Mechanics Science Conference of China (CSEM, 2009).
29. Invited Speaker, "Sensing and Packaging Issues on Embedded/Surface Mounted Optical Fiber Sensors for Structure Health Monitoring," 12<sup>th</sup> Biennial International Conference on Engineering, Science, Construction and Operations in Challenging Environments, Symposium 9: Innovative Techniques in Structural Health Monitoring, March 14-17, Hawaii, USA 2010.
30. Invited Speaker, "Characterization on all effective parameters of anisotropic optical material using Stokes polarimeter-Theory and experiment," the International

Symposium on Optomechatronic Technologies (ISOT), IEEE/OSA 2010 to be held in Toronto, Canada from Oct. 25<sup>th</sup> to 27<sup>th</sup>, 2010.

31. **Keynote Speaker**, “Current status & advances in optical fibre sensors and applications,” AMSN 2010, 2<sup>nd</sup> ASEAN–APCTP WORKSHOP ON ADVANCED MATERIALS SCIENCE AND NANOTECHNOLOGY, Penang, Malaysia, 21-23 December 2010.

Special Issue:

1. Some contents and figures in “Simple Method to Measure Temperature and Axial Strain Simultaneously Using One In-Fiber Bragg-Grating Sensor,” SPIE, Smart Sensing, Processing, and Instrumentation, Vol. 3042, pp. 237-246, 1997 authored by Lo, Y.L. and Sirkis, J.S. are included in *Measures, Structural Monitoring with Fiber Optic Technology*, published by Academic Press (Boston).
2. Weekly Newsletter, Sensor Technology, Published by John Wiley and Sons, Editor: Dexter Johnson, Invited Topic about “Study on Drag Forces of the Molding flow in IC Packaging Using Optical Fiber Sensors,” authored by Lo, Y.L., Lai, H.Y., and Tsai, M.H., SPIE, Optical Engineering, Vol.39, No.3, pp.832-837, MAR 2000.
3. *Handbook of Optical Fibre Sensing Technology*, Published by John Wiley & Sons, LTD. in pp. 407-408: contents about “Using In-Fiber Bragg-Grating Sensors for Measuring Axial Strain and Temperature Simultaneously on Surface of Structures,” authored by Lo, Y.L., SPIE, Optical Engineering, Vol.37, pp. 2272-2276, 1998.
4. Invited by Sensor Letters, Editor-in-Chief: Craig A. Grimes for writing a chapter about fiber optic sensors (21 pages) for a book called *Encyclopedia of Sensors*, American Scientific Publishers, in 2006.

**A. Journal Papers (\* Corresponding Author); Impact factors are based on 2010 ISI JCR**

1. \*Sirkis, J.S., Lo, Y.L., and Nielsen, P.L., “Phase-Strain Model for Polarimetric Strain Sensors Based on Fictitious Residual Strains,” Journal of Intelligent Material Systems and Structures, Vol. 5, No. 4, pp. 494-500, 1994. (SCI, EI) (Citation number: **5**; Impact factor: 1.604; 80/222(MATERIALS SCIENCE, MULTIDISCIPLINARY)).
2. \*Sirkis, J.S. and Lo, Y.L., “Simultaneous Measurement of Two Strain Components Using 3x3 and 2x2 Coupler-Based Passive Demodulation of Optical Fiber Sensors,” IEEE/OSA, Journal of Lightwave Technology, Vol. 12, No. 12, pp. 2153-2161, 1994. (SCI, EI). (Citation number: **8**; Impact factor: 2.255; 32/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
3. Lo, Y.L. and \*Sirkis, J.S., “Active Homodyne Demodulation of Mach-Zehnder Interferometric Optical Fiber Sensors,” SEM, Experimental Techniques, Vol. 18, No. 6, pp. 33-36, 1994. (SCI, EI). (Citation number: **2**; Impact factor: 0.505; 18/32 (MATERIALS SCIENCE, CHARACTERIZATION & TESTING)).
4. Lo, Y.L. and \*Sirkis, J.S., “Passive Demodulation Techniques for Optical Fiber Sensors,” SEM, Experimental Techniques, Vol. 19, No. 3, pp. 23-27, 1995. (SCI, EI) (Citation number: **10**; Impact factor: 0.505; 18/32 (MATERIALS SCIENCE, CHARACTERIZATION & TESTING)).
5. Lo, Y.L., \*Sirkis, J.S., and Ritchie, K.T., “A Study of the Optomechanical Response of a Diametrically-Loaded High-Birefringent Optical Fiber,” Smart Materials and Structures, Institute of Physics in UK, Vol. 4,

- pp. 327-333, 1995. (SCI, EI) (Citation number: **10**; Impact factor:2.094 ; 11/61(INSTRUMENTS & INSTRUMENTATION)).
6. Lo, Y.L. and \*Sirkis, J.S., "Fabry-Perot Sensors for Dynamic Studies Using Spectrally Based Passive Quadrature Signal Processing," SEM, Experimental Mechanics, Vol.37, No.2, pp. 119-125, 1997. (SCI, EI) (Citation number: **6**; Impact factor: 1.854; 4/32 (MATERIALS SCIENCE, CHARACTERIZATION & TESTING)).
  7. Lo, Y.L., \*Sirkis, J.S., and Fourney, W.L., "In-Fiber Doppler Velocimeter for Velocity Measurements of Moving Surfaces," SEM, Experimental Mechanics, Vol. 37, pp. 328-332, 1997. (SCI, EI) (Citation number: **4**; Impact factor: 1.854; 4/32 (MATERIALS SCIENCE, CHARACTERIZATION & TESTING)).
  8. Lo, Y.L., \*Sirkis, J.S., and Chang, C.C., "Passive Signal Processing of In-Line Fiber Etalon Sensors for High Strain-Rate Loading," IEEE/OSA, Journal of Lightwave Technology, Vol.15, pp. 1578-1586, 1997. (SCI, EI) (Citation number: **39**; Impact factor: 2.255; 32/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
  9. Lo, Y.L., \*Sirkis, J.S., and Fourney, W.L., "Development of an Optical Fiber Strain Sensor for Explosively Generated Stress Wave Propagation Applications," The International Journal for Blasting and Fragmentation, Vol. 1, pp. 471-486, 1997.
  10. Lo, Y.L. and \*Sirkis, J.S., "Strain-Rate Sensor Based on In-Fiber Doppler Velocimetry," SPIE, Optical Engineering, Vol. 37, pp. 1648-1654, 1998. (SCI, EI) (Citation number: **2**; Impact factor: 0.815 ; 49/78 (OPTICS)).
  11. \*Lo, Y.L., "Intensity Compensation for In-Fiber Fabry-Perot Sensors in High Disturbed Environments," IEE, Electronics Letters, Vol. 34, No. 4, pp. 394-395, 1998. (SCI, EI) (Citation number:**3**; Impact factor:1.001; 122/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
  12. \*Lo, Y.L., "Using In-Fiber Bragg-Grating Sensors for Measuring Axial Strain and Temperature Simultaneously on Surface of Structures," SPIE, Optical Engineering, Vol. 37, pp. 2272-2276, 1998. (SCI, EI) (Citation number: **28** ; Impact factor: 0.815 ; 49/78 (OPTICS)).
  13. \*Lo, Y.L., "In-Fiber Bragg Grating Sensors Using Interferometric Interrogations for Passive Quadrature Signal Processing," IEEE, Photonics Technology Letters, Vol. 10, pp. 1003-1005, 1998. (SCI, EI) (Citation number: **23**; Impact factor: 1.987; 43/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
  14. \*Lo, Y.L. and Chuang, H.S., "Measurement in Thermal Expansion Coefficient Using an In-Fiber Bragg-Grating Sensor," Measurement Science & Technology, Institute of Physics in UK, Vol. 9, pp. 1543-1547, 1998. (SCI, EI) (Citation number: **13**; Impact factor: 1.350; 20/87 (ENGINEERING, MULTIDISCIPLINARY)).
  15. \*Lo, Y.L., Tsai, M.H., and Tsao, C.C., "Spectrum Analysis in Cross-Talk of Series Fabry-Perot Sensors in Path-Matching Differential Interferometry (PMDI)," Optics & Laser Technology, Vol. 30: 6-7, pp. 395-401, 1998. (SCI, EI) (Citation number: **3** ; Impact factor: 1.616; 27/78(OPTICS)).
  16. \*Lo, Y.L. and Xiao, F.Y., "Measurements of Corrosion and Temperature Using A Single-Pitch Bragg Grating Fiber Sensor," Journal of Intelligent Material Systems and Structures, Vol. 9, pp. 800-807, 1998. (SCI, EI) (Citation number: **18**; Impact factor: 1.604; 80/222(MATERIALS SCIENCE, MULTIDISCIPLINARY)).
  17. \*Lo, Y.L., "Study of Cross-Talk of Parallel Fabry-Perot Sensors in Path-Matching Differential Interferometry (PMDI)," Optics and Lasers in Engineering, Vol. 31, pp. 401-410, 1999. (SCI, EI) (Citation number: **1**; Impact factor: 1.567; 29/78 (OPTICS)).
  18. \*Lo, Y.L., Lai, H.Y., and Tsai, M.H., "Mathematical Modeling of the Wall Effect on Drag Forces in Molding Flow Using Optical Fiber Sensing Data," Journal of Materials Processing Technology, Vol. 97, pp. 174-179, 2000. (SCI, EI) (Citation number: **11**; Impact factor: 1.567; 8/37(ENGINEERING, MANUFACTURING)).
  19. \*Lo, Y.L., Lai, H.Y., and Wang, W.C., "Developing Stable Optical Fiber Refractometers Using PMDI with Two-Parallel Fabry-Perots," Sensors and Actuators B, Vol. 62, pp. 49-54, Jan., 2000. (SCI, EI) (Citation number: **6**; Impact factor: 3.368; **5/61(INSTRUMENTS & INSTRUMENTATION)**).
  20. \*Lo, Y.L., Lai, H.Y., and Tsai, M.H., "Study on Drag Forces of the Molding flow in IC Packaging Using Optical Fiber Sensors," SPIE, Optical Engineering, Vol.39, No.3, pp.832-837, MAR 2000. (SCI, EI) (Citation number: **0** ; Impact factor: 0.815 ; 49/78 (OPTICS)).
  21. \*Lo, Y.L., Huang, J.F., Sung, P.H., and Yang, M.D., "Intensity Variation Effects in Fiber Bragg Grating Sensors Scanned by a Tunable Filter," Measurement Science and Technology, Institute of Physics in UK, Vol. 11, No. 10, pp. 1456-1462, 2000. (SCI, EI) (Citation number: **3**; Impact factor: 1.350; 20/87 (ENGINEERING, MULTIDISCIPLINARY)).
  22. \*Lo, Y.L., Sung, P.H., and Wang, H.J., and Chen, L.W., "Pressure Vessel Wall Thinning Detection Using Multiple Pairs of Fiber Bragg Gratings For Unbalanced Strain Measurements," Journal of Nondestructive

- Evaluation, Vol. 19, No. 3, pp. 105-113, 2000. (SCI, EI) (Citation number: 2; Impact factor: 0.567; 16/32 (MATERIALS SCIENCE, CHARACTERIZATION & TESTING)).
23. \*Lo, Y.L. and Chuang, C.H., "New Synthetic-Heterodyne Demodulation for an Optical Fiber Interferometer," IEEE, Journal of Quantum Electronics, Vol. 37, No.5, pp. 658-663, May 2001. (SCI, EI) (Citation number: 18; Impact factor: 2.477; 24/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
  24. \*Lo, Y.L. and Chuang, C.H., "Differential optical fiber refractometer based on a path-matching differential interferometer with temperature compensation," OSA, Applied Optics: Lasers, Photonics and Environmental Optics, 40: (21) 3518-3524, July 2001. (SCI, EI) (Citation number: 3 ; Impact factor:1.703; 23/78 (OPTICS)).
  25. \*Lo, Y.L., Ho, T.L., Chen, J.L., Lee, R.S., and Chen, T.C., "Linkage-Spring Model in Analyzing Wirebonding Loops," IEEE, Transactions on Components and Packaging Technologies, Vol. 24, No.3, pp. 450-456, SEP 2001. (SCI, EI) (Citation number: 5; Impact factor: 0.962; 18/37 (ENGINEERING, MANUFACTURING)).
  26. \*Lo, Y.L., Chen, T.C., and Ho, T.L., "Design in Triangle- Profiles and T-Profiles of a Wirebond Using a Linkage-Spring Model," IEEE, Transactions on Components and Packaging Technologies, Vol. 24, No.3, pp. 457-467, SEP 2001. (SCI, EI) (Citation number: 5; Impact factor: 0.962; 18/37 (ENGINEERING, MANUFACTURING)).
  27. \*Lo, Y.L. and Tsao, C.C., "Wirebond Profiles Characterized by a Modified Linkage-Spring Model which Includes a Looping Speed Factor," Microelectronics Reliability, Vol. 42, pp. 285-291, 2002 (SCI, EI) (Citation number: 4; Impact factor: 1.066; 114/247 (ENGINEERING, ELECTRICAL & ELECTRONIC )).
  28. \*Lo, Y.L., Yan, T.Y., and Kuo, C.P., "Self-Referenced Intensity Based Fiber Optic Sensor System Using Fiber Bragg Gratings," SPIE, Optical Engineering, Vol. 41, No.5, pp.1087-1092, MAY 2002. (SCI, EI) (Citation number: 4; Impact factor: 0.815; 49/78 (OPTICS)).
  29. \*Lo, Y.L. and Taso, C.C., "Integrated Taguchi Method and Neural Network Analysis of Physical Profiling in the Wirebonding Process," IEEE, Transactions on Components and Packaging Technologies, Vol. 25, No. 2, pp. 270-277, 2002. (SCI, EI) (Citation number: 11; Impact factor: 0.962; 18/37 (ENGINEERING, MANUFACTURING)).
  30. \*Lo, Y.L. and Kuo, C.P., "Packaging a Fiber Bragg Grating Without Preloading in a Simple Athermal Bimaterial Device", IEEE, Transactions on Advanced Packaging, Vol. 25, No. 1, pp. 50-53, 2002. (SCI, EI) (Citation number: 16; Impact factor: 1.276; 12/37 (ENGINEERING, MANUFACTURING)).
  31. Yang, K.W., Liu, A.G., \*Cheng, C.C., and Lo, Y.L., "Topology and Shape Optimization of Substrate for Chirp Fiber Bragg Grating Spectrum Tuning," IEEE/OSA, Journal of Lightwave Technology, Vol. 20, No. 7, pp. 1182-1187, 2002. (SCI, EI) (Citation number: 11; Impact factor: 2.255; 32/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
  32. \*Lo, Y.L. and Chuang, G.S., "Fluid Velocity Measurements in Micro-Channel by two New Optical Heterodyne Microscopes," Applied Optics, Vol. 41, No. 31, pp. 6666-6675, Nov. 2002. (SCI, EI) (Citation number: 6; Impact factor: 1.703; 23/78 (OPTICS)).
  33. \*Lo, Y.L. and Hsu, P.F., "Birefringence Measurements by an Electro-Optic Modulator using a New Heterodyne Scheme," SPIE, Optical Engineering, Vol. 41, No.11, pp. 2764-2767, NOV. 2002. (SCI, EI) (Citation number: 23; Impact factor: 0.815; 49/78 (OPTICS)).
  34. \*Lo, Y.L. and Kuo, C.P., "Packaging a Fiber Bragg Grating With Metal Coating for an Athermal Design," IEEE/OSA, Journal of Lightwave Technology, Vol.21, No.5, pp. 1377- 1383, May 2003. (SCI, EI) (Citation number: 15; Impact factor: 2.255; 32/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
  35. \*Lo, Y.L., Chue, B.R., and Xu, S.H., "Fiber Torsion Sensor Demodulated by a High-Birefringence Fiber Bragg Grating," Optics Communications, Volume: 230, Issue: 4-6, pp. 287-295, 2004. (SCI, EI) (Citation number: 9; Impact factor: 1.517; 31/78 (OPTICS)).
  36. \*Lo, Y.L., Chow, H.C., and Chiang, C.Y., "Reconfigurable OADM and OXC Designed by a New Optical Switch," Optical Fiber Technology, Vol.10, No.2, pp. 187-200, 2004. (SCI, EI) (Citation number: 4; Impact factor: 0.841; 37/78(TELECOMMUNICATIONS)).
  37. \*Huang, J.F., Tsai, C.M., and Lo, Y.L., "Compensating Fiber Gratings for Source Flatness to Reduce Multiple-Access Interferenes in Optical CDMA Network Coder/Decoders", IEEE/OSA, Journal of Lightwave Technology, Vol.22, No.3, pp. 739-745, 2004. (SCI, EI) (Citation number: 12; Impact factor: 2.255; 32/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
  38. \*Lo, Y.L., Lai, C.H., Lin, J.F., and Hsu, P.F., "Simultaneous Absolute Measurements of Principal Angle and Phase Retardation with New Common-Path Heterodyne Interferometer," OSA, Applied Optics, Vol. 43, No.10, pp. 2013-2022, 2004. (SCI, EI) (Citation number: 19; Impact factor: 1.703; 23/78 (OPTICS)).

39. Lee, S.Y., Lin, J.F., \*Lo, Y.L., "A compact circular heterodyne interferometer for the simultaneous measurement of variations in the magnitude of phase retardation and the principal axis angle," *Measurement Science Technology*, Vol.15, No.5, pp. 978-982, 2004 (SCI, EI) (Citation number: **13**; Impact factor: 1.350; 20/87 (ENGINEERING, MULTIDISCIPLINARY)).
40. Chang, Y.M., \*Cheng, C.C., and Lo, Y.L., "Thermal Compensation for a Chirp Fiber Bragg Grating bonded Substrate," *IEEE, Transactions on Advanced Packaging*, Vol.27, No.1, pp.188-193, 2004. (SCI, EI) (Citation number: **3**; Impact factor: 1.276; 12/37 (ENGINEERING, MANUFACTURING)).
41. \*Lo, Y.L., Lee, S.Y., Lin, J.F., "The new circular polariscope and the Senarmont setup with electro-optic modulation for measuring the optical linear birefringent media properties," *Optics Communications*, Vol.237/4-6, pp. 267-273, 2004. (SCI, EI) (Citation number: **10**; Impact factor: 1.517; 31/78 (OPTICS)).
42. Cheng, H.C. and \*Lo, Y.L., "Arbitrary strain distribution measurement using a genetic algorithm approach and two fiber Bragg grating intensity spectra," *Optics Communications*, Volume 239, Issues 4-6, pp. 323-332, 2004. (SCI, EI) (Citation number: **9**; Impact factor: 1.517; 31/78 (OPTICS)).
43. \*Lo, Y.L., Kuo, C.I., Chuang, C.H., and Yan, Z.Z., "Optical Coherence Tomography System With No High-Precision Scanning Stage and Stage Controller," *Applied Optics*, Vol. 43, No. 21, pp. 4142-4149, 2004. (SCI, EI) (Citation number: **4**; Impact factor: 1.703; 23/78 (OPTICS)).
44. \*Lo, Y.L., Lin, J.F., Lee, S.Y., "Polariscope for simultaneous measurements of the principal axis and phase retardation by using of two phase-locked extractions," *Applied Optics*, Vol. 43, No. 34, pp. 6248-6254, 2004. (SCI, EI) (Citation number: **14**; Impact factor: 1.703; 23/78 (OPTICS)).
45. \*Lo, Y.L., Lin, Y.C., Chen, Y.M., "Athermal Fiber Bragg Grating Strain Gauge With Metal Coating in Measurement of Thermal Expansion Coefficient," *Sensors and Actuators A*, Vol.117, No. 1, pp. 103-109, 2005. (SCI, EI) (Citation number: **3**; Impact factor: 1.933; 47/247 (ENGINEERING, ELECTRICAL & ELECTRONIC)).
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