Professor Chi-Wai Chow (Ph.D.)

Book and Book Chapters

[1] **C. W. Chow**, *Optical Fiber Communications*, Wunan Pub. (ISBN: 9789571162447), 2011
[2] **C. W. Chow**, et al Chapter 4, "Visible Light Communication," *The Current Trends of Optics and Photonics*, edited by Cheng-Chung Lee, Springer, (ISBN 978-94-017-9392-6), 2015
[3] **C. W. Chow**, Chapter 2, "Semiconductor Optical Amplifiers for the Next Generation Broadband Access Networks," *Optical Amplifiers*, edited by Galina Nemova, Nova Publishers, (ISBN: 978-1-61209-835-7), 2011
[4] **C. W. Chow,** Chapter 5: "Broadband Optical Access using Centralized Carrier Distribution," *Optical Access Networks and Advanced Photonics: Technologies and Deployment Strategies,* edited by I. P. Chochliouros and G. A. Heliotis, IGI Global Publishing (ISBN: 978-1-60566-707-2), 2010
[5] **C. W. Chow,** et al, Chapter 17 "Nonlinear Photonic Signal Processing Subsystems and Applications," *Advances in Lasers and Electro Optics*, In-Tech (ISBN: 978-953-307-088-9), 2010
[6] C. H. Yeh and **C. W. Chow,** Chapter 6 "Self-Protected Sensor System Utilizing Fiber Bragg Grating (FBG)-Based Sensors,"*Optical Sensors - New Developments and Practical Applications*, In-Tech (ISBN:978-953-51-1233-4), 2014

Invited Papers

[1] **C. W. Chow***, Y. Liu, C. H. Yeh, Y. H. Chang, Y. S. Lin, K. L. Hsu, X. L. Liao, and K. H. Lin, "Display light panel and rolling shutter image sensor based optical camera communication (OCC) using frame-averaging background removal and neural network," ***(OFC 2020 Invited Paper)*** *Journal of Lightwave Technology*, vol. 39, no. 13, pp. 4360-4366, July, 2021.
[2] **C. W. Chow***, Y. C. Chang, S. I. Kuo, P. C. Kuo, J. W. Wang, Y. H. Jian, Z. Ahmad, P. H. Fu, J. W. Shi, D. W. Huang, T. Y. Hung, Y. Z. Lin, C. H. Yeh and Y. Liu, "Actively controllable beam steering optical wireless communication (OWC) using integrated optical phased array (OPA)," ***(OFC 2022 Top Scored Paper)*** *Journal of Lightwave Technology*, 2022, doi: 10.1109/JLT.2022.3206843.
[3] **C. W. Chow***, C. H. Yeh, Y. Liu, and Y. F. Liu, "Digital signal processing for light emitting diode based visible light communication," *IEEE Photonic Society Newsletters*, vol. 26, no. 5, pp. 9-13, 2012 ***(Google citation: 93)***
[4] C. H. Yeh, **C. W. Chow**, Y. L. Liu, S. K. Wen, S. Y. Chen, C. R. Sheu, M. C. Tseng, J. L. Lin, D. Z. Hsu and S. Chi, "Theory and Technology for Standard WiMAX over Fiber in High Speed Train Systems," *Journal of Lightwave Technology*, **(Invited)**, vol. 28, no. 16, pp. 2327-2336 August, 2010 ***(Google citation: 70)***
[5] C. H. Yeh, **C. W. Chow**, Y. M. Lin, D. Z. Hsu, and S. Chi "Recent research on fiber access systems for FTTH networks in Taiwan" *IEEE LEOS Newsletter*, vol. 22, no. 2, pp. 15-19, 2008

Selected Invited Talks and Post-Deadline Papers

[1] **C. W. Chow***, et al, "Enabling techniques for optical wireless communication systems (Invited paper)" **Optical Fiber Communication Conference (OFC)**, USA, 2020. Paper M2F.1.
[2] **C. W. Chow***, et al, "Optical Wireless Communications (OWC) - Technologies and Applications," Opto-Electronics and Communications Conference (OECC), 2020, doi: 10.1109/OECC48412.2020.9273663.
[3] **C. W. Chow***, et al, "Digital signal processing for visible light communication applications (Invited)," Asia Communications and Photonics Conference (ACP) Paper T4E.2, Chengdu, China, Nov. 2019
[4] **C. W. Chow***, et al, "Physically secure communications using visible light communications," Asia Communications and Photonics Conference (ACP), Invited JORCEP Workshop, Nov., 2017, Guangzhou, China.
[5] **C. W. Chow***, et al, "Silicon Photonics for Access Networks and Data Centers," Energy Materials and Nanotechnology (EMN) Meeting, Invited, Hong Kong, Dec. 2016.
[6] **C. W. Chow***, et al, "Short-reach light emitting diode (LED) based Visible Light Communications (VLC)," Asia Communications and Photonics Conference (ACP), Invited Workshop, Hong Kong, Nov. 2015.
[7] **C. W. Chow***, et al, "Visible Light Communications (VLC) –Possibilities and Challenges for Future Wireless Communications," Wireless and Optical Communications Conference (WOCC), Invited, Taiwan, Oct. 2015.
[8] **C. W. Chow***, et al, "LED-based Visible Light Communications (VLC)," Bilateral Photonics Workshop of the National Science Foundation (NSF) and Ministry of Science and Technology (MOST), Invited, Taiwan, May 2015.
[9] **C. W. Chow***, et al, "Visible Light Communications using White-Light LED," LED Solid State Lighting Conference, Invited, Taiwan, May 2015.
[10] **C. W. Chow***, et al, "Optical wireless communications using visible LED," IEEE TENCON, Macau, Nov. 2015.
[11] **C. W. Chow***, et al, "Direct-detection all-optical OFDM superchannel for long-reach PON," International Conference on Optical Communications and Networks (ICOCN), Invited, China, Nov. 2014.
[12] **C. W. Chow***, et al, "White-light LED-based visible light communication," Optics & Photonics Taiwan, the International Conference (OPTIC), Invited, Taiwan, Dec. 2014.
[13] **C. W. Chow***, et al, "Enabling technologies and signal processing for NG-PON2 and future WDM-PON,"

International Conference on Information, Communications and Signal Processing (ICICS), Taiwan, Dec. 2013.

[14] **C. W. Chow***, et al, "Technology advances for the 2nd Stage Next-Generation Passive-Optical-Network (NG-PON2)," IEEE/International Conference on Advanced Infocomm Technology (IEEE/ICAIT), Invited, Taiwan, July, 2013.

[15] **C. W. Chow***, et al, "Advances in Access Networks – from Long-reach (LR) to Short-reach (SR), and from TDM/WDM to OFDM," Wireless and Optical Communication Conference (WOCC), Invited, Taiwan, April, 2012.

[16] **C. W. Chow***, et al, "Recent advances in hybrid access networks: From long-reach (LR) to short-reach (SR) systems," International Conference on Optical Communications and Networks (ICOCN), Invited, China, Dec. 2011.

[17] **C. W. Chow***, et al, "Long reach access and integrated home networks," OptoElectronics and Communications Conference (OECC), Invited, Taiwan, July, 2011.

[18] **C. W. Chow***, et al, "Long-reach WDM PONs," **IEEE International Photonics Society Annual Meeting (IEEE IPC),** Invited Talk WA1, Denver, CO, USA, Nov. 2010.

[19] **C. W. Chow***, et al, "Long-reach PONs for Next Generation Access Networks," International High Speed Intelligent Communication 2010 (HSIC 2010), Invited, Singapore, May 2010

[20] **C. W. Chow***, et al, "Long Reach WDM-PON," OptoElectronics and Communications Conference (OECC), Invited Workshop, Hong Kong, July 2009

[21] **C. W. Chow***, et al, "Demonstration of High Spectral Efficient Long Reach Passive Optical Networks using OFDM-QAM," **Conference on Lasers and Electro-Optics (CLEO), Post-deadline Paper**, CPDB7, San Jose, USA, 2008.

[22] **C. W. Chow***, et al, "CSS-AMPSK for Rayleigh Noise Mitigation in PONs," **Conference on Lasers and Electro-Optics (CLEO), Post-deadline Paper**, CPDB10, Baltimore, USA, 2007.

[23] **C. W. Chow*** et al, "Serial OTDM for 100 Gb/s Ethernet Applications," **Conference on Lasers and Electro-Optics (CLEO), Post-deadline Paper**, CPDB6, Long Beach, USA, 2006.

Journal Papers (* means Corresponding Author)

2023

[1] C. W. Peng, D. W. U. Chan, **C. W. Chow***, T. Y. Hung, Y. H. Jian, Y. Tong, P. C. Kuo, G. H. Chen, Y. Liu, C. H. Yeh, and H. K. Tsang, "Long Short Term Memory Neural Network (LSTMNN) and inter-symbol feature extraction for 160 Gbit/s PAM4 from silicon micro-ring transmitter," *Optics Communications*, vol. 529, 129067, Feb. 2023.

2022

[2] **C. W. Chow***, Y. C. Chang, S. I. Kuo, P. C. Kuo, J. W. Wang, Y. H. Jian, Z. Ahmad, P. H. Fu, J. W. Shi, D. W. Huang, T. Y. Hung, Y. Z. Lin, C. H. Yeh and Y. Liu, "Actively controllable beam steering optical wireless communication (OWC) using integrated optical phased array (OPA)," ***(OFC 2022 Top Scored Paper)*** *Journal of Lightwave Technology*, 2022, doi: 10.1109/JLT.2022.3206843.

[3] W. C. Wang, S. E. Hsieh, C. H. Yeh, Y. C. Lin, Y. H. Lin, C. H. Hsu, S. Y. Jiang, and **C. W. Chow**, "Tunable sub-kHz linewidth erbium fiber laser by utilizing eight fiber ring design in L-band range," *Optical Fiber Technology*, vol. 74, pp. 103080, Dec. 2022.

[4] C. J. Tsai, H. Z. Chen, W. C. Wang, C. H. Yeh, Y. Y. Chen, D. Y. Yang, C. H. Hsu, and **C. W. Chow**, "A single-mode wavelength-selectable erbium laser based on multiple-fiber-ring design," *Optical and Quantum Electronics*, vol. 54, pp. 814, Oct. 2022

[5] L. S. Hsu, **C. W. Chow***, Y. Liu, Y. H. Chang, T. T. Tsai, T. Y. Hung, Y. Z. Lin, Y. H. Jian, and C. H. Yeh, "Utilizing single light-emitting-diode (LED) lamp and silicon solar-cells visible light positioning (VLP) based on angle-of-arrival (AOA) and long-short-term-memory-neural-network (LSTMNN)," *Optics Communications*, vol. 524, pp. 128761, Dec. 2022.

[6] L. S. Hsu, **C. W. Chow***, Y. Liu, and C. H. Yeh, "3D visible light-based indoor positioning system using two-stage neural network (TSNN) and received intensity selective enhancement (RISE) to alleviate light non-overlap zones," *Sensors*, vol. 22, pp. 8817, Nov. 2022.

[7] W. H. Gunawan, **C. W. Chow***, Y. Liu, Y. H. Chang, and C. H. Yeh, "Optical beam steerable visible light communication (VLC) system supporting multiple users using RGB and orthogonal frequency division multiplexed (OFDM) non-orthogonal multiple access (NOMA)," *Sensors*, vol. 22, pp. 8707, Nov. 2022.

[8] C. H. Hsu, S. Y. Jiang, S. E. Hsieh, C. H. Yeh, Y. T. Lai, L. Y. Chen, S. K. Liaw, and **C. W. Chow**, "Hybrid self-protected fiber-FSO WDM-PON system with fiber breakage prevention," *Photonics*, vol. 9, pp. 822, Nov. 2022.

[9] H. M. Chan, **C. W. Chow***, L. S. Hsu, Y. Liu, C. W. Peng, Y. H. Jian, C. H. Yeh, "Utilizing lighting design software for simulation and planning of machine learning based angle-of-arrival (AOA) visible light positioning (VLP) systems," *IEEE Photonics Journal*, vol. 14, no. 6, pp. 7358407, Dec. 2022.

[10] H. S. Ko, C. H. Yeh, L. H. Liu, Y. T. Lai, S. E. Hsieh, S. K. Liaw, and **C. W. Chow**, "Wide and stabilized erbium laser with single-mode and kHz linewidth output," *Optical Fiber Technology*, vol. 73, pp. 103079, Oct. 2022.

[11] S. E. Hsieh, C. H. Hsu, C. H. Yeh, S. Y. Jiang, Y. T. Lai, **C. W. Chow**, and S. K. Liaw, "L-band wavelength-selectable Erbium laser with stable single-frequency oscillation," *Electronics*, vol. 11, pp. 2996, Sept. 2022.

[12] T. T. Tsai, **C. W. Chow***, Y. H. Chang, Y. H. Jian, Y. Liu, and C. H. Yeh, "130-m image sensor based visible light communication (VLC) using under-sample modulation and spatial modulation," *Optics Communications*, vol. 519, pp. 128405, Sept. 2022.

[13] H. M. Chan, **C. W. Chow***, Y. Liu, C. H. Yeh, Y. H. Chang, L. S. Hsu, D. C. Tsai, T. W. Yu, and Y. H. Jian, "Using lighting design tool to simplify the visible light positioning plan and reduce the deep learning loading," *Optics Express*, vol. 30, no. 17, pp. 31002-31016, Aug. 2022.

[14] Y. M. Huang, C. Y. Peng, W. C. Miao, H. Chiang, T. Y. Lee, Y. H. Chang, K. J. Singh, Z. D. Iida, R. H. Horng, **C. W. Chow**, C. C. Lin, K. Ohkawa, S. C. Chen, and H. C. Kuo, "High-efficiency InGaN red micro-LEDs for visible light communication," *Photonics Research*, vol. 10, no. 8, pp. 1978-1986, Aug. 2022.

[15] W. T. Huang, C. Y. Peng, H. Chiang, Y. M. Huang, K. J. Singh, W. B. Lee, **C. W. Chow**, S. C. Chen, and H. C. Kuo, "Toward high-bandwidth yellow-green micro-LEDs utilizing nanoporous distributed Bragg reflectors for visible light communication," *Photonics Research*, vol. 10, no. 8, pp. 1810-1818, Aug. 2022.

[16] C. H. Yeh, W. P. Lin, S. Y. Jiang, S. E. Hsieh, C. H. Hsu, and **C. W. Chow**, "Integrated fiber-FSO WDM access system with fiber fault protection," Electronics, vol. 11, pp. 2101, July 2022.

[17] L. S. Hsu, D. C. Tsai, **C. W. Chow***, Y. Liu, Y. H. Chang, Y. Z. Lin, C. H. Yeh, Y. C. Wang, Y. Y. Chen, "Using data pre-processing and convolutional neural network (CNN) to mitigate light deficient regions in visible light positioning (VLP) systems," *Journal of Lightwave Technology,* vol. 40, pp. 5894-5900, Sept. 2022.

[18] W. H. Gunawan, **C. W. Chow***, Y. Liu, Y. H. Chang, Y. H. Jian, C. W. Peng, C. H. Yeh, "Digital domain power division multiplexing optical OFDM for free space optical communication (FSOC) using 10-GHz bandwidth optical components," *IEEE Photonics Journal*, vol. 14, no. 4, pp. 7336707, Aug. 2022.

[19] C. H. Yeh, L. H. Liu, H. S. Ko, Y. T. Lai and **C. W. Chow**, "A selectable single-mode erbium fiber laser with Mach-Zehnder interferometer and Rayleigh injection scheme," *IEEE Photonics Journal*, vol. 14, no. 3, pp. 1532904, June 2022.

[20] Y. T. Lai, L. C. Chen, C. H. Yeh, **C. W. Chow**, and S. K. Liaw, "Vernier effect based fiber laser with switchable and stable single-mode output behavior," *Optical and Quantum Electronics*, vol. 54, pp. 378, May, 2022.

[21] L. C. Chen, Y. T. Lai, C. H. Yeh, W. P. Lin, **C. W. Chow**, J. H. Chen, "A stabilized single-longitudinal-mode and wide wavelength tunability erbium laser," Photonics, vol. 9, pp. 336, May, 2022.

[22] Y. H. Chang, Y. M. Huang, F. J. Liou, **C. W. Chow***, Y. Liu, H. C. Kuo, C. H. Yeh, W. H. Gunawan, T. Y. Hung, and Y. H. Jian, "2.805 Gbit/s high-bandwidth phosphor white light visible light communication utilizing an InGaN/GaN semipolar blue micro-LED," *Optics Express*, vol. 30, pp. 16938-16946, May 2022.

[23] D. C. Tsai, Y. H. Chang, **C. W. Chow***, Y. Liu, C. H. Yeh, C. W. Peng, and L. S. Hsu, "Optical camera communication (OCC) using a laser-diode coupled optical-diffusing fiber (ODF) and rolling shutter image sensor," *Optics Express*, vol. 30, no. 10, pp. 16069-16077, May 2022.

[24] C. H. Yeh, H. S. Ko, L. H. Liu, S. K. Liaw, and **C. W. Chow**, "Stable and wavelength-selectable quad-ring based erbium laser with 2-kHz linewidth output," *Optics and Laser Technology*, vol. 149, pp. 107819, May 2022.

[25] C. H. Yeh, Y. T. Lai, L. H. Liu, H. S. Ko, Y. T. Lai, Y. C. Chen, and **C. W. Chow***, "Use of simple octa-ring configuration for tunable erbium laser with single-mode output," *IEEE Access*, vol. 10, pp. 38750-38754, April 2022.

[26] C. H. Yeh, L. H. Liu, W. P. Lin, H. S. Ko, Y. T. Lai, and **C. W. Chow,** "A survivable optical network for WDM access against fiber breakpoint," *IEEE Access*, vol. 10, pp. 25828-25833, March 2022.

[27] C. H. Yeh, H. S. Ko, S. K. Liaw, L. H. Liu, J. H. Chen, and **C. W. Chow**, "A survivable and flexible WDM access network by alternate FSO- and fiber-paths for fault protection," *IEEE Photonics Journal*, vol. 14, no. 1, pp. 7209205, Feb. 2022.

[28] Y. C. Chen, C. H. Yeh, W. P. Lin, L. H. Liu, H. S. Ko, Y. T. Lai, and **C. W. Chow**, "Use of symmetric Sagnac dual-ring scheme for tunable single-mode erbium fiber laser," *Physica Scripta*, vol. 97, no. 2, pp. 025501, Jan. 2022.

2021

[29] Y. H. Chang, T. C. Hsu, F. J. Liou, **C. W. Chow***, Y. Liu, H. C. Kuo, C. H. Yeh, and P. H. Yang, "High-bandwidth InGaN/GaN semipolar micro-LED acting as a fast photodetector for visible light communications," *Optics Express*, vol. 29, no. 23, pp. 37245-37252, Nov. 2021.

[30] W. H. Gunawan, Y. Liu, **C. W. Chow***, Y. H. Chang, C. H. Yeh, "High speed visible light communication using digital power domain multiplexing of orthogonal frequency division multiplexed (OFDM) signals," *Photonics*, vol. 8, pp. 500, Nov. 2021.

[31] D. C. Lin, **C. W. Chow***, C. W. Peng, T. Y. Hung, Y. H. Chang, S. H. Song, Y. S. Lin, Y. Liu, and K. H. Lin, "Positioning unit cell model duplication with residual concatenation neural network (RCNN) and transfer learning for visible light positioning (VLP)," *Journal of Lightwave Technology*, vol. 39, pp. 6366-6372, Oct. 2021.

[32] Y. S. Lin, **C. W. Chow***, Y. Liu, Y. H. Chang, K. H. Lin, Y. C. Wang, and Y. Y. Chen, "PAM4 rolling-shutter demodulation using a pixel-per-symbol labeling neural network for optical camera communications," *Optics Express*, vol. 29, pp. 31680-31688, Sept. 2021.

[33] B. Y. Wang, W. H. Hsu, C. H. Yeh, S. K. Liaw, and **C. W. Chow**, "A single-mode erbium laser with switchable single- and dual-wavelength operation," *Physica Scripta*, vol. 96, no. 12, pp. 125512, Sept. 2021.

[34] T. C. Yu, W. T. Huang, W. B. Lee, **C. W. Chow**, S. W. Chang, H. C. Kuo, "Visible light communication system technology review: devices, architectures, and applications," *Crystals*, vol. 11, no. 9, pp. 1098, Sept. 2021.

[35] C. H. Yeh, B. Y. Wang, W. H. Hsu, W. Y. You, J. R. Chen, **C. W. Chow**, J. H. Chen, "Stable and selectable erbium multiple-ring laser with self-injection loop," *Optics & Laser Technology*, vol. 141, pp. 107106, Sept. 2021.

[36] C. H. Yeh, B. Y. Wang, W. H. Hsu, W. P. Lin and **C. W. Chow**, "Symmetry 28 Gbps/λ WDM access network together with confidential connection between two specific clients," *IEEE Access*, vol. 9, pp. 122738-122743, Aug. 2021.

[37] **C. W. Chow***, Y. Liu, C. H. Yeh, Y. H. Chang, Y. S. Lin, K. L. Hsu, X. L. Liao, and K. H. Lin, "Display light panel and rolling shutter image sensor based optical camera communication (OCC) using frame-averaging background removal and neural network," *Journal of Lightwave Technology*, vol. 39, no. 13, pp. 4360-4366, July, 2021.

[38] Y. H. Chang, Y. M. Huang, W. H. Gunawan, G. H. Chang, F. J. Liou, **C. W. Chow***, H. C. Kuo, Y. Liu, and C. H. Yeh, "4.343-Gbit/s green semipolar (20-21) μ-LED for high speed visible light communication," *IEEE Photonics Journal*, vol. 13, no. 4, pp. 7300204, Aug. 2021.

[39] C. H. Yeh, W. H. Hsu, B. Y. Wang, J. R. Chen, W. Y. You, and **C. W. Chow**, "Dual-polarized WDM access network with fiber to the extension (FTTE) connection," *IEEE Photonics Journal*, vol. 13, no. 4, pp. 7200106, Aug. 2021.

[40] Y. C. Yang, C. H. Yeh, S. K. Liaw, **C. W. Chow**, W. H. Hsu, B. Y. Wang, "Analysis and investigation of dual-polarized color LED based visible light communication system," *Photonics*. vol. 8, no. 6, pp. 210, June. 2021.

[41] S. H. Song, D. C. Lin, Y. Liu, **C. W. Chow***, Y. H. Chang, K. H. Lin, Y. C. Wang, and Y. Y. Chen, "Employing DIALux to relieve machine-learning training data collection when designing indoor positioning systems," *Optics Express*, vol. 29, pp. 16887-16892, May, 2021

[42] W. H. Gunawan, Y. Liu, **C. W. Chow***, Y. H. Chang, C. W. Peng, and C. H. Yeh, "Two-level laser diode color-shift-keying orthogonal-frequency-division-multiplexing (LD-CSK-OFDM) for optical wireless communications (OWC)," *Journal of Lightwave Technology*, vol. 39, no. 10, pp. 3088-3094, May, 2021.

[43] Y. Z. Lin, P. M. Yen, B. W. Huang, C. H. Yeh, **C. W. Chow**, W. H. Hsu, B. Y. Wang, J. H. Chen, "Applying self-injection and dual-ring based fiber laser for wide tunability and stable single-frequency output," *Optics & Laser Technology*, vol. 137, pp. 106804, May 2021.

[44] C. H. Yeh, L. H. Liu, H. S. Ko, B. Y. Wang, W. H. Hsu, **C. W. Chow**, J. H. Chen, "Quad-ring based erbium fiber laser for switchable and stable single-longitudinal-mode operation," *Optical Fiber Technology*, vol. 61, pp. 102450, Jan 2021.

[45] C. W. Peng, **C. W. Chow***, P. C. Guo, G. H. Chen, C. H. Yeh, J. Chen, Y. Lai, "DP-QPSK coherent detection using 2D grating coupled silicon based receiver," *IEEE Photonics Journal*, vol. 13, pp. 7900105, Feb. 2021.

[46] G. H. Li, Y. Z. Lin, H. W. Chang, C. H. Yeh, J. R. Chen, B. Y. Wang, W. H. Hsu, **C. W. Chow**, and S. K. Liaw, "Stabilized single-longitudinal-mode fiber laser with broadband and flat wavelength output," *Physica Scripta*, vol. 96, no. 1, pp. 015503, Jan. 2021.

2020

[47] K. L. Hsu, **C. W. Chow***, Y. Liu, Y. C. Wu, C. Y. Hong, X. L. Liao, K. H. Lin, and Y. Y. Chen, "Rolling-shutter-effect camera-based visible light communication using RGB channel separation and an artificial neural network," Opt. Express, vol. 28, no. 26, 39956-39962, Dec. 2020.

[48] C. H. Yeh, W. Y. You, J. R. Chen, W. P. Lin, **C. W. Chow** and J. H. Chen, "A single-mode erbium fiber laser with flat power output and wide wavelength tunability," IEEE Photonics Journal, vol. 12, no. 6, pp. 7202805, Dec. 2020.

[49] G. H. Chen, J. F. Tsai, C. W. Peng, P. C. Kuo, C. J. Chen, **C. W. Chow***, C. H. Yeh, Y. Lai, Y. Liu, "Compact mode division MUX/DEMUX using enhanced evanescent-wave coupling on silicon-on-insulator (SOI) platform for 11-Tbit/s broadband transmission," IEEE Access, vol. 8, pp. 219881-219890, Nov. 2020.

[50] Y. C. Wu, **C. W. Chow***, Y. Liu, Y. S. Lin, C. Y. Hong, D. C. Lin, S. H. Song, and C. H. Yeh, "Received-signal-strength (RSS) based 3D visible-light-positioning (VLP) system using kernel ridge regression machine learning algorithm with sigmoid function data preprocessing method," IEEE Access, vol. 8, pp. 214269-214281, Nov. 2020.

[51] L. Y. Wei, S. I Chen, C. H. Yeh, Y. Liu, G. H. Chen, C. W. Peng, W. H. Gunawan, Y. H. Chang, P. C. Guo, **C. W. Chow***, "2.333-Tbit/s bi-directional optical mobile networks using optical wireless communication (OWC)," Optics Communications, vol. 475, pp. 126187, Nov. 2020.

[52] K. J. Singh, Y. M. Huang, T. Ahmed, A. C. Liu, S. W. H. Chen, F. J. Liou, T. Wu, C. C. Lin, **C. W. Chow**, G. R. Lin, and H. C. Kuo, "Micro-LED as a promising candidate for high-speed visible light communication," Applied Sciences, vol. 10, pp. 7384, Oct. 2020.

[53] C. H. Yeh, W. H. Hsu, B. Y. Wang, W. Y. You, J. R. Chen, **C. W. Chow***, S. K. Liaw, "Fiber-and FSO-protected connections for long-reach TWDM access architecture with fault protection," IEEE Access, vol. 8, pp. 189982-189988, Oct. 2020.

[54] C. H. Yeh, Y. C. Yang, **C. W. Chow***, Y. W. Chen, and T. A. Hsu, "VCSEL and LED based visible light communication system by applying decode-and-forward relay transmission," Journal of Lightwave Technology, vol. 38, pp. 5729-5732, Oct. 2020.

[55] C. H. Yeh, W. Y. You, J. R. Chen, W. P. Lin, and **C. W. Chow**, "Feedback-injected erbium fiber laser with selectable tunability and constant single-longitudinal-mode characteristic," IEEE Access, vol. 8, pp. 187858-187863, Oct. 2020.

[56] A. Adnan, Y. Liu, **C. W. Chow***, C. H. Yeh, "Analysis of non-Hermitian symmetry (NHS) IFFT/FFT size efficient OFDM for multiple-client non-orthogonal multiple access (NOMA) visible light communication (VLC) system," Optics Communications, vol. 472, pp. 125991, Oct. 2020.

[57] W. H. Gunawan, Y. Liu, C. H. Yeh, and **C. W. Chow***, "Color-shift-keying embedded direct-current optical-orthogonal-frequency-division-multiplexing (CSK-DCO-OFDM) for visible light communications (VLC)," IEEE Photonics Journal, vol. 12, no. 5, pp. 7905205, Oct. 2020.

[58] C. Y. Hong, Y. C. Wu, Y. Liu, K. L. Hsu, W. H. Gunawan, A. Adnan, L. Y. Wei, C. H. Yeh, **C. W. Chow***, "Using silicon photovoltaic cells and machine learning and neural network algorithms for visible-light positioning systems," Optical Engineering, vol. 59, no. 9, pp 096107, Sept. 2020.

[59] C. H. Yeh, J. R. Chen, W. Y. You, W. P. Lin, and **C. W. Chow**, "Free space optical communication in long-reach unidirectional ring-architecture fiber network," IEEE Access, vol. 8, pp. 159574-159580, Sept. 2020.

[60] C. H. Yeh, **C. W. Chow**, W. P. Lin, J. R. Chen, and W. Y. You, "Utilizing single-wavelength for OFDM wireless downstream and remodulated OOK upstream in colorless access network to mitigate Rayleigh backscattering noise," Optical Fiber Technology, vol. 58, pp. 102268, Sept. 2020.

[61] L. Y. Wei, Y. Liu, **C. W. Chow***, G. H. Chen, C. W. Peng, P. C. Guo, J. F. Tsai, and C. H. Yeh,"6.915-Gbit/s white-light phosphor laser diode-based DCO-OFDM visible light communication (VLC) system with functional transmission distance," Electronics Letters, vol. 56, no. 18, pp. 945-947, Sept. 2020

[62] C. Y. Hong, Y. C. Wu, Y. H. Lin, Y. Liu, **C. W. Chow***, H. F. Meng, Y. M. Chang, C. H. Yeh, K. L. Hsu, and S. H. Song, "Visible light positioning (VLP) system using low-cost organic photovoltaic cell (OPVC) for low illumination environments," Optics Express, vol. 28, pp. 26137-26142, Aug. 2020.

[63] C. H. Yeh, W. Y. You, J. R. Chen, **C. W. Chow** and W. P. Lin, "An erbium fiber laser with single-frequency oscillation and wavelength-upconverted output," IEEE Photonics Journal, vol. 12, no. 5, pp. 7102807, Oct. 2020.

[64] C. H. Yeh, Y. C. Yang, T. A. Hsu, Y. W. Chen, **C. W. Chow**, and J. H. Chen, "Adaptive and secure VCSEL FSO based on simple dual-polarized architecture for short distance transmission," Physica Scripta, vol. 95, no. 9, pp. 095505, Aug. 2020.

[65] Y. Tong, G. H. Chen, Y. Wang, Z. Zhang, D. W. U Chan, **C. W. Chow**, and H. K. Tsang, "1.12-Tbit/s PAM-4 enabled by a silicon photonic transmitter bridged with a 7-channel MCF," IEEE Photonics Technology Letters, vol. 32, no. 16, pp. 987-990, Aug., 2020.

[66] S. W. H. Chen, Y. M. Huang, Y. H. Chang, Y. Lin, F. J. Liou, Y. C. Hsu, J. Song, J. Choi, **C. W. Chow**, C. C. Lin, R. H. Horng, Z. Chen, J. Han, T. Wu, and H. C. Kuo, "High-bandwidth green semipolar (20–21) InGaN/GaN micro light-emitting diodes for visible light communication," ACS Photonics, vol. 7, no. 8, pp. 2228-2235, July, 2020.

[67] C. H. Yeh, W. Y. You, J. R. Chen, **C. W. Chow**, and W. P. Lin, "Utilizing self-injection Rayleigh backscattering feedback for channel-selected erbium laser with single-longitudinal-mode output," Physica Scripta, vol. 95, no. 7, pp. 075502, June 2020.

[68] C. H. Yeh, C. M. Luo, Y. R. Xie, **C. W. Chow**, R. B. Chen, M. C. Tseng, "Demonstration of 1-Gbps real-time optical wireless communication by simple transmission scheme," Optical and Quantum Electronics, vol. 52, pp. 1-7, June 2020.

[69] C. H. Yeh, J. R. Chen, W. Y. You, W. P. Lin, and **C. W. Chow**, "Rayleigh backscattering noise alleviation in long-reach ring-based WDM access communication," IEEE Access, vol. 8, pp. 105065-105070, May 2020.

[70] C. H. Yeh, J. R. Chen, W. Y. You, and **C. W. Chow***, "Hybrid WDM FSO fiber access network with Rayleigh backscattering noise mitigation," IEEE Access, vol. 8, pp. 96449-96454, May 2020.

[71] A. Adnan, Y. Liu, **C. W. Chow***, C. H. Yeh, "Demonstration of non-Hermitian symmetry (NHS) serial-complex-valued orthogonal frequency division multiplexing (SCV-OFDM) for white-light visible light communication (VLC)," OSA Continuum, vol. 3, pp. 1163-1168, May 2020.

[72] C. Y. Hong, Y. C. Wu, Y. Liu, **C. W. Chow***, C. H. Yeh, K. L. Hsu, D. C. Lin, X. L. Liao, K. H. Lin, and Y. Y. Chen, "Angle-of-arrival (AOA) visible light positioning (VLP) system using solar cells with third-order regression and ridge regression algorithms," IEEE Photonics Journal, vol. 12, no. 3, pp. 7902605, May 2020.

[73] A. Adnan, Y. Liu, **C. W. Chow***, C. H. Yeh, "Demonstration of non-Hermitian symmetry (NHS) IFFT/FFT size efficient OFDM non-orthogonal multiple access (NOMA) for visible light communication," IEEE Photonics Journal, vol. 12, no. 3, pp. 7201405, June 2020.

[74] C. H. Yeh, C. M. Luo, Y. R. Xie, and **C. W. Chow**, "Single-mode erbium laser with CW tunability by exploiting saturable absorber and self-injected loop," Optics Communications, vol. 459, pp. 124968, March 2020.

[75] L. Y. Wei, **C. W. Chow***, Y. Liu, and C. H. Yeh, "Multi-Gbit/s phosphor-based white-light and blue-filter-free visible light communication and lighting system with practical transmission distance," Optics Express, vol. 28, pp. 7375-7381, March 2020.

[76] C. H. Yeh, Y. Xie, C. Luo and **C. W. Chow**, "Integration of FSO traffic in ring-topology bidirectional fiber access network with fault protection," IEEE Communications Letters, vol. 24, no. 3, pp. 589-592, March 2020.

[77] Y. C. Wu, K. L. Hsu, Y. Liu, C. Y. Hong, **C. W. Chow***, C. H. Yeh, X. L. Liao, K. H. Lin, Y. Y. Chen, "Using linear interpolation to reduce the training samples for regression based visible light positioning system," IEEE Photonics Journal, vol. 12, pp. 7901305, Feb. 2020.

[78] Y. R. Xie, C. M. Luo, C. H. Yeh, and **C. W. Chow**, "Utilizing C-band erbium fiber and saturable absorber for broadband and continuous wavelength tunability laser with single-mode oscillation," Laser Physics, vol. 30, no. 3, pp. 035102, Jan. 2020

[79] K. L. Hsu, Y. C. Wu, Y. C. Chuang, **C. W Chow***, Y. Liu, X. L. Liao, K. H. Lin, and Y. Y. Chen, "CMOS camera based visible light communication (VLC) using grayscale value distribution and machine learning algorithm," Opt. Express, vol. 28, pp. 2427-2432, Jan. 2020.

[80] C. H. Yeh, **C. W. Chow**, and L. Y. Wei, "Symmetric> 67 Gbps OFDM-IMDD based WDM access network for mitigating Rayleigh backscattering interference noise," Optics Communications, vol. 454, pp. 124504, Jan. 2020.

2019

[81] C. H. Yeh, B. S. Guo, C. S. Gu, **C. W. Chow**, and W. P. Lin, "Use of same WDM channels in fiber network for bidirectional free space optical communication with Rayleigh backscattering interference alleviation," IEEE Access, vol. 7, pp. 169571-169576, Nov. 2019.

[82] C. H. Yeh, C. M. Luo, Y. R. Xie, **C. W. Chow**, Y. W. Chen, and T. A. Hsu, "Survivable and reliable WDM-PON system with self-protected mechanism against fiber fault," IEEE Access, vol. 7, pp. 165088-165092, Nov. 2019.

[83] C. H. Yeh, Y. J. Chang, **C. W. Chow**, and W. P. Lin, "Utilizing polarization-multiplexing for free space optical communication transmission with security operation," Optical Fiber Technology, vol. 52, pp. 101992, Nov. 2019

[84] Y. C. Chuang, **C. W. Chow***, Y. Liu, C. H. Yeh, X. L. Liao, K. H. Lin, and Y. Y. Chen, "Using logistic regression classification for mitigating high noise-ratio advisement light-panel in rolling-shutter based visible light communications," Optics Express, vol. 27, no. 21, pp. 29924-29929, Oct. 2019.

[85] C. H. Yeh, W. P. Lin, C. M. Luo, Y. R. Xie, Y. J. Chang and **C. W. Chow**, "Utilizing single lightwave for delivering baseband/FSO/MMW traffics simultaneously in PON architecture," IEEE Access, vol. 7, pp. 138927-138931, Sept. 2019.

[86] C. H. Yeh, Y. J. Chang, W. P. Lin, Y. R. Xie, C. M. Luo, **C. W. Chow**, J. H. Chen, "62 nm CW wavelength-selectable erbium-doped fiber compound-ring laser with stable single-mode output," Physica Scripta, vol. 94, pp. 125801, Sept. 2019.

[87] G. H. Chen, **C. W. Chow***, C. H. Yeh, C. W. Peng, P. C. Guo, J. F. Tsai, M. W. Cheng, Y. Tong, H. K. Tsang, "Mode-division-multiplexing (MDM) of 9.4-Tbit/s OFDM signals on silicon-on-insulator (SOI) platform," IEEE Access, vol. 7, pp. 129104-129111, Sept. 2019.

[88] L. Y. Wei, **C. W. Chow***, G. H. Chen, Y. Liu, C. H. Yeh, and C. W. Hsu, "Tricolor visible-light laser diodes based visible light communication operated at 40.665 Gbit/s and 2 m free-space transmission," Optics Express, vol. 27, no. 18, pp. 25072-25077, Sept. 2019.

[89] Y. J. Chang, C. H. Yeh, and **C. W. Chow**, "Reliability of stable Fiber Bragg grating sensor system for monitoring temperature and strain individually," Measurement Science and Technology, vol. 30, pp. 105108, Aug. 2019.

[90] C. H. Yeh, W. P. Lin, Y. J. Chang, Y. R. Xie, C. M. Luo and **C. W. Chow**, "A selectable single-mode erbium laser with power-flattened output employing dual-Sagnac-ring," IEEE Access, vol. 7, pp. 92938-92942, July 2019.

[91] C. H. Yeh, J. H. Weng, **C. W. Chow**, C. M. Luo, Y. R. Xie, C. J. Chen, and M. C. Wu, "1.7 to 2.3 Gbps OOK LED VLC transmission based on 4 × 4 color-polarization-multiplexing at extremely low illumination," IEEE Photonics Journal, vol. 11, no. 4, pp. 7904206, June 2019.

[92] Y. L. Yang, C. H. Yeh, C. K. Tsai, Y. R. Xie, C. M. Luo, Y. J. Chang, J. H. Chen, and **C. W. Chow**, "Single-mode erbium fiber dual-ring laser with 60-nm workable wavelength tunability," Optics & Laser Technology, vol. 114, pp. 16-19, June 2019.

[93] Y. C. Chuang, Z. Q. Li, C. W. Hsu, Y. Liu, and **C. W. Chow***, "Visible light communication and positioning using positioning cells and machine learning algorithms," Optics Express, vol. 27, pp. 16377-16383, May 2019.

[94] C. H. Yeh, **C. W. Chow** and L. Y. Wei, "1250 Mbit/s OOK wireless white-light VLC transmission based on phosphor laser diode," IEEE Photonics Journal, vol. 11, no. 3, pp. 7903205, June 2019.

[95] C. L. Li, X. H. Jiang, Y. Hsu, G. H. Chen, **C. W. Chow**, and D. Dai, "Ten-channel mode-division-multiplexed silicon photonic integrated circuit with sharp bends," Frontiers of Information Technology & Electronic Engineering, vol. 20, no. 4, pp. 498-506, April 2019.

[96] C. H. Yeh, B. S. Guo, Y. J. Chang, **C. W. Chow**, and C. S. Gua, "Bidirectional free space optical communication (FSO) in WDM access network with 1000-m supportable free space link," Optics Communications, vol. 435, 394-398, Mar. 2019.

[97] C. H. Yeh, Y. J. Chang, T. J. Huang, Z. Q. Yang, **C. W. Chow**, and K. H. Chen, "A fiber Bragg grating based passive semicircular sensor architecture with fault monitoring," Optical Fiber Technology, vol. 48, pp. 258-262, March 2019.

[98] **C. W. Chow***, Z. Q. Li, Y. C. Chuang, X. L. Liao, K. H. Lin, Y. Y. Chen, "Decoding CMOS rolling-shutter pattern in translational or rotational motions for VLC," IEEE Photonics Journal, vol. 11, pp. 7902305, April 2019.

[99] Y. Tong, **C. W. Chow***, G. H. Chen, C. W. Peng, C. H. Yeh, and H. K. Tsang, "Integrated silicon photonics remote radio frontend (RRF) for single-sideband (SSB) millimeter-wave radio-over-fiber (ROF) systems," IEEE Photonics Journal, vol. 11, pp. 7202108, April 2019.

2018

[100] C. H. Yeh, **C. W. Chow**, C. S. Gu, B. S. Guo, Y. J. Chang, J. H. Weng, and M. C. Wu, "400 Mbit/s OOK green-LED visible light communication with low illumination," Optical and Quantum Electronics, 50, 430, Dec. 2018.

[101] C. H. Yeh, C. S. Gu, B. S. Guo, Y. J. Chang, **C. W. Chow**, M. C. Tseng, R. B. Chen, "Hybrid free space optical communication system and passive optical network with high splitting ratio for broadcasting data traffic," Journal of Optics, 20, 125702, Nov. 2018.

[102] **C. W. Chow***, Y. Liu, R. J. Shiu, and C. H. Yeh, "Adaptive thresholding scheme for demodulation of rolling-shutter images obtained in CMOS image sensor based visible light communications," IEEE Photonics Journal, vol. 10, no. 6, pp. 7908506, Nov. 2018.

[103] C. H. Yeh, Z. Q. Yang, T. J. Huang, **C. W. Chow**, Y. J. Chang, and M. J. Chen, "Erbium-doped fiber dual-ring laser with stable single-longitudinal-mode and 55-nm tuning range," Optics & Laser Technology, 106, 119-122, Oct. 2018.

[104] Y. Tong, Q. Zhang, X. Wu, **C. W. Chow**, C. Shu, and H. K. Tsang, "Integrated germanium-on-silicon Franz–Keldysh vector modulator used with a Kramers–Kronig receiver," Optics Letters, vol. 43, pp. 4333-4336, Sept. 2018.

[105] C. H. Yeh, **C. W. Chow**, C. S. Gu, B. S. Guo, Y. J. Cheng and J. H. Chen, "Performance analysis of free space optical communication traffic integrated with passive optical network," Electronics Letters, vol. 54, no. 21, pp. 1228-1229, Sept. 2018.

[106] Y. Hsu, C. H. Yeh, H. Y. Cheng, Y. C. Chang, **C. W. Chow**, "Employment of silicon-micro-ring resonator and compound-ring architecture for stable and tunable single-longitudinal-mode fiber laser," Optics and Laser Technology, vol. 105, pp. 114-117, Sept. 2018.

[107] **C. W. Chow***, R. J. Shiu, Y. C. Liu, W. C. Wang, X. L. Liao, K. H. Lin, Y. C. Wang, and Y. Y. Chen, "Mitigation of performance degradation due to dynamic display contents in visible light communication using TV backlight and CMOS image sensor," Optics Express 26, 17, 22342-22347, Aug. 2018

[108] C. W. Hsu, C. H. Yeh, **C. W. Chow**, "Using adaptive equalization and polarization-multiplexing technology for gigabit-per-second phosphor-LED wireless visible light communication," Optics and Laser Technology, vol. 104, pp. 206-209, Aug. 2018.

[109] C. H. Yeh, H. Y. Cheng, Y. C. Chang, **C. W. Chow** and J. H. Chen, "Silicon-micro-ring resonator-based erbium fiber laser with single-longitudinal-mode oscillation," IEEE Photonics Journal, vol. 10, no. 3, pp. 7103107, June 2018

[110] Y. Hsu, C. H. Yeh, **C. W. Chow**, Y. C. Chang, H. Y. Cheng, "Stabilized single-longitudinal-mode erbium fibre laser employing silicon-micro-ring resonator and saturable absorber," Laser Physics, vol. 28, no. 7, pp. 75103, May 2018.

[111] **C. W. Chow***, R. J. Shiu, Y. C. Liu, X. L. Liao, K. H. Lin, Y. C. Wang, and Y. Y. Chen, "Using advertisement light-panel and CMOS image sensor with frequency-shift-keying for visible light communication," Optics Express, vol. 26, 10, pp. 12530-12535, May 2018.

[112] Z. Q. Yang, T. J. Huang, Y. J. Chang, C. H. Yeh, **C. W. Chow**, J. H. Chen, K. H. Chen, "Switchable dual-wavelength single-longitudinal-mode erbium fiber laser utilizing a dual-ring scheme with a saturable absorber," Laser Physics, vol. 28, no. 6, pp. 65104, May 2018.

[113] L. Y. Wei, C. W. Hsu, **C. W. Chow***, and C. H. Yeh, "20.231 Gbit/s tricolor red/green/blue laser diode based bidirectional signal remodulation visible-light communication system," Photonics Research, vol. 6, no. 5, pp. 422-426, May 2018.

[114] L. Y. Wei, **C. W. Chow***, C. W. Hsu and C. H. Yeh, "Bidirectional visible light communication system using a single VCSEL with predistortion to enhance the upstream remodulation," IEEE Photonics Journal, vol. 10, no. 3, pp. 7903407, June 2018.

[115] Y. Hsu, C. Y. Chuang, X. Wu, G. H. Chen, C. W. Hsu, Y. C. Chang, **C. W. Chow***, J. Chen, Y. C. Lai, C. H. Yeh, H. K. Tsang, "2.6 Tbit/s on-chip optical interconnect supporting mode-division-multiplexing and PAM-4 signal," IEEE Photonics Technology Letters, vol. 30, no. 11, pp. 1052-1055, June, 2018.

[116] **C. W. Chow***, R. J. Shiu, Y. C. Liu, Y. Liu, and C. H. Yeh, "Non-flickering 100 m RGB visible light communication transmission based on a CMOS image sensor," Optics Express, vol. 26, no. 6, pp. 7079-7084, Mar. 2018.

[117] C. H. Yeh, Z. Q. Yang, T. J. Huang, and **C. W. Chow**, "Utilizing wheel-ring architecture for stable and selectable single-longitudinal-mode erbium fiber laser," *Optics Communications*, vol. 410, 923-925, Mar. 2018.

[118] **C. W. Chow***, R. J. Shiu, Y. C. Liu, C. H. Yeh, X. L. Liao, K. H. Lin, Y. C. Wang, Y. Y. Chen, "Secure mobile-phone based visible light communications with different noise-ratio light-panel," IEEE Photonics Journal, vol. 10, pp. 7902806, April 2018.

[119] **C. W. Chow***, H. Y. Wang, C. H. Chen, H. W. Zan, C. H. Yeh and H. F. Meng, "Pre-distortion scheme to enhance the transmission performance of organic photo-detector (OPD) based visible light communication (VLC)," IEEE Access, vol. 6, pp. 7625-7630, Feb. 2018.

[120] H. Y. Wang, J. T. Wu, **C. W. Chow***, Y Liu, C. H. Yeh, X. L. Liao, K. H. Lin, W. L. Wu, and Y. Y. Chen, "Using pre-distorted PAM-4 signal and parallel resistance circuit to enhance the passive solar cell based visible light communication," *Optics Communications*, vol. 407, pp. 245-249, Jan. 2018.

[121] H. Y. Chang, C. H. Yeh, C. Y. Huang, M. Y. Fu, **C. W. Chow**, and W. F. Liu, "In-fiber long-period grating and fiber Bragg grating-based sensor for simultaneously monitoring remote temperature and stress," Sensors and Materials, vol. 30, pp. 23-32, Jan. 2018.

2017

[122] C. H. Yeh, T. J. Huang, Z. Q. Yang, **C. W. Chow** and J. H. Chen, "Stable single-longitudinal-mode erbium fiber ring laser utilizing self-injection and saturable absorber," IEEE Photonics Journal, vol. 9, no. 6, pp. 7106206, Dec. 2017.

[123] W. C. Wang, **C. W. Chow***, C. W. Chen, H. C. Hsieh and Y. T. Chen, "Beacon jointed packet reconstruction scheme for mobile-phone based visible light communications using rolling shutter," IEEE Photonics Journal, vol. 9, no. 6, pp. 7907606, Dec. 2017.

[124] C. H. Yeh, T. J. Huang, Z. Q. Yang, and **C. W. Chow**, "Using multi-ring structure for suppression of mode competition in stable single-longitudinal-mode erbium fiber laser," Journal of Physics B, vol. 50, no. 24, pp. 245401, Nov. 2017.

[125] C. H. Yeh, N. Tsai, Y. H. Zhuang, T. J. Huang, **C. W. Chow**, J. H. Chen, and W. F. Liu, "Smart architecture for stable multipoint fiber Bragg grating sensor system," Laser Physics, vol. 27, no. 12, pp. 126201, Nov. 2017.

[126] C. H. Yeh, L. Y. Wei, and **C. W. Chow***, "Using a single VCSEL source employing OFDM downstream signal and remodulated OOK upstream signal for bi-directional visible light communications," Scientific Reports, vol. 7, 15846, Nov. 2017.

[127] T. C. Tzu, Y. Hsu, C. Y. Chuang, X. Wu, **C. W. Chow***, J. Chen, C. H. Yeh, and H. K. Tsang, "Equalization of PAM-4 signal generated by silicon microring modulator for 64-Gbit/s transmission," Journal of Lightwave Technology, vol. 35, no. 22, pp. 4943-4948, Nov. 2017.

[128] Y. Hsu, C. H. Yeh, **C. W. Chow**, "Mode-locking S-band erbium fiber laser by employing alcohol-based saturable-absorber," Optical and Quantum Electronics, vol. 49, no. 11 pp. 360, Nov. 2017.

[129] C. H. Yeh, Z. Q. Yang, T. J. Huang, **C. W. Chow**, J. H. Chen, and K. H. Chen, "Wavelength-selectable and steady single-mode erbium-doped fiber multiple ring laser," Laser Physics, vol. 27, no. 11, 115104, Nov. 2017.

[130] X. Wu, K. Xu, W. Zhou, **C. W. Chow**, H. K. Tsang, "Scalable ultra-wideband pulse generation based on silicon photonic integrated circuits," *IEEE Photonics Technology Letters,* vol. 29, no. 21, pp. 1896-1899, Nov 2017.

[131] T. A. Liu, Y. Hsu, **C. W. Chow***, Y. C. Chuang, W. J. Ting, B. C. Wang, J. L. Peng, G. H. Chen, Y. C. Chang, "Compact 84 GHz passive mode-locked fiber laser using dual-fiber coupled fused-quartz microresonator," Optical Engineering, vol. 56, no. 10, pp. 106113, Oct. 2017.

[132] C. W. Chen, **C. W. Chow***, Y. Liu, and C. H. Yeh, "Efficient demodulation scheme for rolling-shutter-patterning of CMOS image sensor based visible light communications," *Optics Express*, vol. 25, no. 20, pp. 24362-24367, Sept. 2017

[133] C. H. Yeh, Y. H. Zhuang, N. Tsai, and **C. W. Chow**, "Stable and wavelength-selectable C + L band fiber ring laser with single-longitudinal-mode by utilizing C-band erbium fiber amplifier," Optics Express, vol. 25, pp. 21019-21024, Sept. 2017.

[134] J. T. Wu, **C. W. Chow***, Y. Liu, C. W. Hsu, and C. H. Yeh, "Performance enhancement technique of visible light communications using passive photovoltaic cell," *Optics Communications*, vol. 392, pp. 119-122, June, 2017.

[135] C. H. Yeh, Y. H. Zhuang, N. Tsai, **C. W. Chow**, and J. H. Chen, "Use of proper cavity loss for a stable single-longitudinal-mode erbium fiber laser," *Laser Physics*, vol. 27, no. 6, pp. 065109, June 2017.

[136] W. C. Wang, **C. W. Chow***, L. Y. Wei, Y. Liu, and C. H. Yeh, "Long distance non-line-of-sight (NLOS) visible light signal detection based on rolling-shutter-patterning of mobile-phone camera," *Optics Express*, vol. 25, no. 9, pp. 10103-10108, May 2017.

[137] C. H. Yeh, Y. H. Zhuang, N. Tsai, and **C. W. Chow**, "Capacity and capability enhancements of FBG sensor system by utilizing intensity and WDM detection technique," *Smart Materials and Structures*, vol. 26, pp. 035026, Feb. 2017.

[138] C. H. Yeh, N. Tsai, Y. H. Zhuang, **C. W. Chow**, and J. H. Chen, "Stabilized and tunable single-longitudinal-mode erbium fiber laser employing ytterbium-doped fiber based interference filter," *Optics and Laser Technology*, vol. 88, pp. 180-183, Feb, 2017.

[139] C. W. Hsu, G. H. Chen, L. Y. Wei, **C. W. Chow***, I. C. Lu, Y. L. Liu, H. Y. Chen, C. H. Yeh, and Y. Liu, "Adaptive filtering for white-light LED visible light communication," *Optical Engineering*, vol. 1, pp. 016115-016115, Jan. 2017.

2016

[140] C. W. Hsu, **C. W. Chow***, I. C. Lu, Y. L. Liu, C. H. Yeh, and Y. Liu, "High speed imaging 3× 3 MIMO phosphor white-light LED based visible light communication system," *IEEE Photonics Journal,* vol. 8, no. 6, pp. 7907406, Dec 2016.

[141] C. H. Yeh, N. Tsai, Y. H. Zhuang, **C. W. Chow**, and W. F. Liu, "Fault self-detection technique in fiber Bragg grating-based passive sensor network," *IEEE Sensors Journal*, vol. 16, no. 22, pp. 8070-8074, Nov 2016.

[142] J. Y. Sung, **C. W. Chow***, C. H. Yeh, and G. K. Chang, "Two-level modulation scheme to reduce latency for optical mobile fronthaul networks," *Optics Express*, vol. 24, no. 22, pp. 25767-25773 Oct. 2016.

[143] K. Liang, **C. W. Chow***, Y. Liu, and C. H. Yeh, "Thresholding schemes for visible light communications with CMOS camera using entropy-based algorithms," *Optics Express*, vol. 24, no. 22, pp. 25641-25646, Oct 2016.

[144] C. H. Yeh, Y. H. Zhuang, N. Tsai, J. H. Chen and **C. W. Chow**, "Utilizing dual-pass composite-ring architecture for a stabilized and wavelength-selectable single-longitudinal-mode erbium-doped fiber laser," *Laser Physics*, vol. 26, no. 10, pp. 105102, Sept. 2016.

[145] C. W. Hsu, J. T. Wu, H. Y. Wang, **C. W. Chow***, C. H. Lee, M. T. Chu, C. H. Yeh, "Visible light positioning and lighting based on identity positioning and RF carrier allocation technique using a solar cell receiver," *IEEE Photonics Journal,* vol. 8, no. 4, 7905507, Aug. 2016.

[146] C. H. Yeh, J. Y. Chen, H. Z. Chen, **C. W. Chow**, "Selectable dual-wavelength erbium-doped fiber laser with stable single-longitudinal-mode utilizing eye-type compound-ring configuration," *Optics and Laser Technology*, vol. 82, pp. 72-75, Aug. 2016.

[147] K. Liang, **C. W. Chow***, and Y. Liu, "Mobile-phone based visible light communication using region-grow light source tracking for unstable light source," *Optics Express*, vol. 24, no. 15, pp. 17505-17510, July, 2016.

[148] C. W. Chen, W. C. Wang, J. T. Wu, H. Y. Chen, K. Liang, L. Y. Wei, Y. Hsu, C. W. Hsu, **C. W. Chow***, C. H. Yeh, Y. Liu, H. C. Hsieh, Y. T. Chen, "Visible light communications for the implementation of internet-of-things," *Optical Engineering*, vol. 55, pp. 060501, June 2016.

[149] **C. W. Chow***, C. H. Yeh, Y. Liu, J. Y. Sung, and C. W. Hsu, "Network architecture of bidirectional visible light communication and passive optical network," *IEEE Photonics Journal,* vol. 8, no. 3, 7904506, June 2016.

[150] I. C. Lu, C. H. Yeh, D. Z. Hsu, and **C. W. Chow**, "Utilization of 1-GHz VCSEL for 11.1-Gbps OFDM VLC wireless communication," *IEEE Photonics Journal,* vol. 8, no. 3, 7904106, June, 2016.

[151] C. H. Yeh and **C. W. Chow**, "Using single side-band modulation for colorless OFDM-WDM access network to alleviate Rayleigh backscattering effects," *Optics Express*, vol. 24, no. 10, pp. 10898-10903, May, 2016.

[152] C. H. Yeh, Y. Hsu, and **C. W. Chow**, "Utilizing silicon-photonic micro-ring-resonator and multi-ring scheme for wavelength-switchable erbium fiber laser in single-longitudinal-mode," *Laser Physics Letters*, vol. 13, no. 6, pp. 065103, May 2016.

[153] K. Liang, **C. W. Chow***, Y. Liu, "RGB visible light communication using mobile-phone camera and multi-input multi-output," *Optics Express*, vol. 24, no. 9, pp. 9383-9388, April. 2016.

[154] C. H. Yeh, **C. W. Chow**, H. Y. Chen, Y. L. Liu, and D. Z. Hsu, "Investigation of phosphor-LED lamp for real-time half-duplex wireless VLC system," *Journal of Optics*, vol. 18, no. 6, pp. 065701, April 2016.

[155] C. H. Yeh, **C. W. Chow**, J. Y. Sung, and Y. F. Wu, "Use of RSOA-transmitter for OFDM colorless WDM-PON communication," *Optical and Quantum Electronics*, vol. 48, pp. 256, April 2016.

[156] C. H. Yeh, J. Y. Chen, H. Z. Chen, J. H. Chen, **C. W. Chow***, "Stable and tunable single-longitudinal-mode erbium-doped fiber triple-ring laser with power-equalized output," *IEEE Photonics Journal,* vol. 8, no. 2, pp. 1500906, April 2016.

[157] Y. Liu, K. Liang, H. Y. Chen, L. Y. Wei, C. W. Hsu, **C. W. Chow***, and C. H. Yeh, "Light encryption scheme using light-emitting diode and camera image sensor," *IEEE Photonics Journal,* vol. 8, no. 1, pp. 7801107, Feb. 2016.

[158] Y. Liu, H. Y. Chen, K. Liang, C. W. Hsu, **C. W. Chow***, and C. H. Yeh, "Visible light communication using receivers of camera image sensor and solar cell," *IEEE Photonics Journal,* vol. 8, no. 1, pp. 7800107, Feb. 2016.

[159] K. Xu, X. Wu, J. Y. Sung, Z. Cheng, **C. W. Chow**, Q. H. Song, and H. K. Tsang, "Amplitude and phase modulation of UWB monocycle pulses on a silicon photonic chip," *IEEE Photonics Technology Letters*, vol. 28, no. 3 pp. 248-251, Feb. 2016.

[160] Y. Liu, **C. W. Chow***, K. Liang, H. Y. Chen, C. W. Hsu, C. Y. Chen, and S. H. Chen, "Comparison of thresholding schemes for visible light communication using mobile-phone image sensor," *Optics Express*, vol. 24, no. 3, pp. 1973-1978, Jan. 2016.

[161] Y. Liu, Y. Hsu, **C. W. Chow***, L. G. Yang, C. H. Yeh, Y. C. Lai, and H. K. Tsang, "110 GHz hybrid mode-locked fiber laser with enhanced extinction ratio based on nonlinear silicon-on-insulator micro-ring-resonator (SOI MRR)," *Laser Physics Letters*, vol. 13, no. 3, pp. 035101, Jan. 2016.

[162] C. H. Yeh, H. Z. Chen, J. Y. Chen, and **C. W. Chow**, "Stabilized dual-wavelength erbium-doped fiber laser with a single-longitudinal mode by utilizing fiber Bragg grating and a compound-ring filter," *Laser Physics Letters*, vol. 13, no. 2, pp. 025106, Jan. 2016.

[163] Y. Liu, H. Y. Chen, K. Liang, L. Y. Wei, **C. W. Chow**, and C. H. Yeh, "Visible light communications using predistortion signal to enhance the response of passive optical receiver," *Optical Engineering*, vol. 55, no. 1, pp. 010501, Jan. 2016.

[164] C. H. Yeh, J. Y. Chen, H. Z. Chen, **C. W. Chow**, "Stable single-longitudinal-mode erbium-doped fiber laser with dual-ring structure," *Optical Fiber Technology*, vol. 27, pp. 46-48, 2016, Jan. 2016.

2015

[165] Y. Liu, Y. Hsu, C. W. Hsu, L. G. Yang, **C. W. Chow**, C. H. Yeh, Y. C. Lai and H. K. Tsang, "Narrow line-width single-longitudinal-mode fiber laser using silicon-on-insulator based micro-ring-resonator," *Laser Physics Letters*, vol. 13, no. 2, pp. 025102, Dec. 2015.

[166] Y. Liu, C. W. Hsu, H. Y. Chen, K. Liang, **C. W. Chow**, and C. H. Yeh, "Visible-light communication multiple-input multiple-output technology for indoor lighting, communication, and positioning," *Optical Engineering*, vol. 54, no. 12, pp. 120502, Dec. 2015.

[167] C. H. Yeh, **C. W. Chow**, M. H. Yang, and D. Z. Hsu, "A flexible and reliable 40-Gb/s OFDM downstream TWDM-PON architecture," *IEEE Photonics Journal,* vol. 7, no. 6, 7905709, Dec, 2015.

[168] J. Y. Sung, **C. W. Chow**, C. H. Yeh, Y. Liu, and G. K. Chang, "Cost-effective mobile backhaul network using existing ODN of PONs for the 5G wireless systems," *IEEE Photonics Journal,* vol. 7, no. 6, 7201906, Dec, 2015.

[169] J. Y. Sung, C. H. Yeh, **C. W. Chow**, W. F. Lin, Y. Liu, "Orthogonal frequency-division multiplexing access (OFDMA) based wireless visible light communication (VLC) system," *Optics Communications*, vol. 355, pp. 261-268, Nov. 2015.

[170] C. H. Yeh, H. Z. Chen, J. Y. Chen and **C. W. Chow**, "Use of fiber Bragg grating (FBG) for stable and tunable erbium-doped fiber ring laser with single-longitudinal-mode (SLM) output," *Laser Physics*, vol. 25, 11, 115101(4pp), Nov. 2015.

[171] **C. W. Chow***, C. Y. Chen, and S. H. Chen, "Visible light communication using mobile-phone camera with data rate higher than frame rate," *Optics Express*, vol. 23, no. 20, pp. 26080- 26085 Oct. 2015.

[172] **C. W. Chow***, C. Y. Chen, and S. H. Chen, "Enhancement of signal performance in LED visible light communications using mobile phone camera," *IEEE Photonics Journal,* vol. 7, no. 5, 7903607, Oct, 2015.

[173] C. H. Yeh, **C. W. Chow**, J. Y. Chen, H. Z. Chen, J. H. Chen, W. F. Liu, "Utilizing simple FBG-based erbium-doped fiber architecture for remote temperature sensing," *Laser Physics*, vol. 25, 10, 105102(4pp), Oct. 2015.

[174] **C. W. Chow**, S. P. Huang, C. H. Yeh, J. Y. Sung, P. F. Liu, Gary Chou, C. –L. Pan, "Square-core single-mode-fiber (SC-SMF) with high bending tolerance for data center networks," *Optics Communications*, vol. 349, pp. 11-14, Aug. 2015.

[175] C. W. Hsu, **C. W. Chow***, and C. H. Yeh, "Cost-effective direct-detection all-optical OOK-OFDM system with analysis of modulator bandwidth and driving power," *IEEE Photonics Journal,* vol. 7, no. 4, 7902607, Aug, 2015

[176] Y. F. Wu, C. H. Yeh, **C. W. Chow**, J. Y. Sung and J. H. Chen, "Stable and wavelength-tunable self-injected reflective semiconductor optical amplifier-based fiber laser," *IEEE Photonics Journal,* vol. 7, no. 4, 1503007, Aug. 2015.

[177] J. Y. Sung, C. W. Hsu, H. Q. Su, **C. W. Chow**, and C. H. Yeh, "Optical filter analyses for demultiplexing all-optical OFDM transmission systems," *Optical and Quantum Electronics*, vol. 47, no. 8, pp. 2781–2792, Aug. 2015.

[178] C. H. Yeh, **C. W. Chow**, Y. L. Liu, H. Y. Chen, Y. Liu, and J. C. Hsu, "Investigation of no analogue-equalization and blue filter for 185Mbps phosphor-LED wireless communication," *Optical and Quantum Electronics*, vol. 47, no. 7, pp. 1991-1997, July, 2015.

[179] **C. W. Chow***, J. Y. Sung, and C. H. Yeh, "A convergent wireline and wireless time-and-wavelength-division-multiplexed passive optical network," *IEEE Photonics Journal,* vol. 7, no. 3, 7902107, June, 2015.

[180] **C. W. Chow**, Y. Liu, C. H. Yeh, C. Y. Chen, C. N. Lin, and D. Z. Hsu, "Secure communication zone for white-light LED visible light communication," *Optics Communications*, vol. 344, pp. 81-85, June 2015.

[181] **C. W. Chow***, Y. Liu, C. H. Yeh, J. Y. Sung, and Y. L. Liu, "A practical in-home illumination consideration to reduce data rate fluctuation in visible light communication," *IEEE Wireless Communications*, vol. 22, no. 2, pp. 17-23, April, 2015.

[182] W. F. Lin, **C. W. Chow**, and C. H. Yeh, "Using specific and adaptive arrangement of grid-type pilot in channel estimation for white-light-LED-based OFDM visible light communication system," *Optics Communications*, vol. 338, pp. 7-10, March 2015.

[183] **C. W. Chow**, L. G. Yang, J. Y. Sung, H. Q. Su, C. H. Yeh, C. L. Pan, and G. Chou, "56 Gb/s OOK transmission in robust and bend-insensitive GGP 80-μm ultra-large-core (ULC) MMF for lightpeak," *Optical and Quantum Electronics*, vol. 47, no. 3, pp. 529-533, March 2015.

[184] S. H. Chan and **C. W. Chow**, "Single-input multiple-output (SIMO) visible light optical wireless communications supporting quality of service (QoS)," *Electronics Letters*, vol. 51, no. 5, pp. 406-408, March 2015.

[185] S. H. Chen and **C. W. Chow**, "Differential signaling spread-spectrum modulation of the LED visible light wireless communications using a mobile-phone camera," *Optics Communications*, vol. 336, pp. 240-242, Feb. 2015.

[186] C. H. Yeh, H. Y. Chen, **C. W. Chow**, and Y. L. Liu, "Utilization of multi-band OFDM modulation to increase traffic rate of phosphor-LED wireless VLC," *Optics Express*, vol. 23, no. 2, pp. 1133-1138, Jan. 2015.

[187] S. H. Chen and **C. W. Chow**, "Hierarchical scheme for detecting the rotating MIMO transmission of the in-door RGB-LED visible light wireless communications using mobile-phone camera," *Optics Communications*, vol. 335, pp. 189-193, Jan. 2015.

[188] C. H. Yeh, H. Y. Chen, Y. L. Liu, and **C. W. Chow**, "Polarization-multiplexed 2×2 phosphor-LED wireless light communication without using analog equalization and optical blue filter," *Optics Communications*, vol. 334, pp. 8-11, Jan. 2015.

2014

[189] S. H. Chen and **C. W. Chow***, "Color-filter-free spatial visible light communication using RGB-LED and mobile-phone camera," *Optics Express*, vol. 22, no. 25, pp. 30713-30718, Dec. 2014.

[190] **C. W. Chow***, C. H. Yeh, J. Y. Sung, and C. W. Hsu, "Wired and wireless convergent extended-reach optical access network using direct-detection of all-optical OFDM super-channel signal," *Optics Express*, vol. 22, no. 25, pp. 30719-30724, Dec. 2014.

[191] S. H. Chen and **C. W. Chow***, "Color-shift keying and code-division multiple-access transmission for RGB-LED visible light communications using mobile phone camera," *IEEE Photonics Journal,* vol. 6, no. 6, 7904106, Dec, 2014.

[192] L. G. Yang, J. Y. Sung, **C. W. Chow***, C. H. Yeh, K. T. Cheng, J. W. Shi, and C. L. Pan, "Coding for stable transmission of W-band radio-over-fiber system using direct-beating of two independent lasers," *Optics Express*, vol. 22, no. 21, pp. 26092-26097, Oct. 2014.

[193] K. Xu, J. Y. Sung, C. Y. Wong, Z. Cheng, **C. W. Chow***, and H. K. Tsang, "Optical Nyquist filters based on silicon coupled resonator optical waveguides," *Optics Communications*, vol. 329, pp. 23-27, Oct. 2014.

[194] **C. W. Chow***, C. H. Yeh, and J. Y. Sung, "OFDM RF power-fading circumvention for long-reach WDM-PON," *Optics Express*, vol. 22, no. 20, pp. 24392-24397, Sept. 2014.

[195] J. Y. Sung, **C. W. Chow***, and C. H. Yeh, "Is blue optical filter necessary in high speed phosphor-based white light LED visible light communications?" *Optics Express*, vol. 22, no. 17, pp. 20646-20651, Aug, 2014.

[196] J. Y. Sung, **C. W. Chow**, C. –H. Yeh, K. Xu, C. –W. Hsu, H. –Q. Su, and H. –K. Tsang, "A secure WDM ring access network employing silicon micro-ring based remote node," *Optical Fiber Technology*, vol. 20, no. 4, pp. 336-340, Aug. 2014.

[197] C. H. Yeh, J. Y. Sung, L. G. Yang, **C. W. Chow**, and J. H. Chen, "Stable and wavelength-tunable RSOA- and SOA-based fiber ring laser," *Optical Fiber Technology*, vol. 20, no. 3, pp. 250-253, June 2014.

[198] C. H. Yeh, **C. W. Chow**, Y. F. Wu, and S. S. Lu, "Demonstration of self-injected Fabry-Perot laser for dual-wavelength tuning together with different mode-spacing," *Laser Physics*, vol. 24, no. 6, pp. 065101, June 2014.

[199] L. G. Yang, S. S. Jyu, **C. W. Chow***, C. H. Yeh, C. Y. Wong, H. K. Tsang, and Y. Lai, "A 110 GHz passive mode-locked fiber laser based on a nonlinear silicon-micro-ring-resonator," *Laser Physics Letters*, vol. 11, no. 6, pp. 065101, June, 2014.

[200] J. Y. Sung, K. T. Cheng, **C. W. Chow***, C. H. Yeh, and C. L. Pan, "A scalable and continuous-upgradable optical wireless and wired convergent access network," *Optics Express*, vol. 22, no. 11, pp. 12779-12784, May, 2014.

[201] C. H. Yeh, **C. W. Chow**, and S. S. Lu, "Use of a reflective semiconductor optical amplifier and dual-ring architecture design to produce a stable multi-wavelength fiber laser," *Laser Physics*, vol. 24, no. 5, pp. 055101, May, 2014.

[202] C. H. Yeh, **C. W. Chow**, H. Y. Chen, J. Chen, and Y. L. Liu, "Adaptive 84.44 - 190 Mbit/s phosphor-LED wireless communication utilizing no blue filter at practical transmission distance," *Optics Express*, vol. 22, no. 8, pp. 9783-9788, April, 2014.

[203] J. Y. Sung, **C. W. Chow***, and C. H. Yeh, "Dimming-discrete-multi-tone (DMT) for simultaneous color control and high speed visible light communication," *Optics Express*, vol. 22, no. 7, pp. 7538-7543, March 2014.

[204] C. H. Yeh, **C. W. Chow**, H. Y. Chen, and Y. L. Liu, "115 Gbit/s downstream and 10 Gbit/s upstream TWDM-PON together with 11.25 Gbit/s wireless signal utilizing OFDM-QAM modulation," *Optical Fiber Technology*, vol. 20, no. 2, pp. 84-89, March 2014.

[205] C. H. Yeh, H. Y. Chen, **C. W. Chow**, J. Y. Sung, "Demonstration of using multi-band 16-QAM OFDM modulation with direct-detection in 10 GHz bandwidth for 37.3-Gb/s PON," *Photonic Network Communications*, vol. 27, no. 1, pp. 28-33, Feb 2014.

[206] L. G. Yang, S. S. Jyu, **C. W. Chow***, C. H. Yeh, and Y. Lai, "S-band pulse generation by polarization additive pulse mode-locking in an erbium-doped all-fiber ring laser," *Laser Physics Letters*, vol. 11, no. 1, pp. 015105, Jan 2014.

2013

[207] C. H. Yeh, Y. L. Liu, and **C. W. Chow**, "Real-time white-light phosphor-LED visible light communication (VLC) with compact size," *Optics Express*, vol. 21, no. 22, pp. 26192-26197, Oct. 2013.

[208] J. Y. Sung, **C. W. Chow***, C. H. Yeh, and Y. C. Wang, "Service integrated access network using highly spectral-efficient MASK-MQAM-OFDM coding," *Optics Express*, vol. 21, no. 5, pp. 6555-6560, March 2013.

[209] L. G. Yang, C. H. Yeh, C. Y. Wong, **C. W. Chow***, F. G. Tseng, and H. K. Tsang, "Stable and wavelength-tunable silicon-micro-ring-resonator based erbium-doped fiber laser," *Optics Express*, vol. 21, no. 3, pp. 2869-2874, Feb. 2013.

[210] **C. W. Chow***, C. H. Yeh, K. Xu, J. Y. Sung, and H. K. Tsang, "TWDM-PON with signal remodulation and Rayleigh noise circumvention for NG-PON2," *IEEE Photonics Journal,* vol. 5, no. 6, pp. 7902306, Dec 2013.

[211] S. S. Jyu, L. G. Yang, C. Y. Wong, C. H. Yeh, **C. W. Chow***, H. K. Tsang, and Y. Lai, "250 GHz passive harmonic mode-locked Er-doped fiber laser by dissipative four-wave mixing with silicon-based micro-ring," *IEEE Photonics Journal,* vol. 5, no. 5, pp. 1502107, Oct. 2013.

[212] Y. F. Liu, C. H. Yeh and **C. W. Chow** "Alternating-signal-biased system design and demonstration for visible light communication," *IEEE Photonics Journal,* vol. 5, no. 4, pp. 7901806, Aug. 2013.

[213] H. Y. Chen, C. H. Yeh, **C. W. Chow**, J. Y. Sung, Y. L. Liu, J. Chen, "Investigation of using injection-locked Fabry–Perot laser diode with 10% front-facet reflectivity for short-reach to long-reach upstream PON access," *IEEE Photonics Journal,* vol. 5, no. 3, pp. 7901208, June 2013.

[214] **C. W. Chow***, C. H. Yeh, Y. F. Liu, and P. Y. Huang, "Background optical noises circumvention in LED optical wireless systems using OFDM," *IEEE Photonics Journal,* vol. 5, no. 2, pp. 7900709, April 2013.

[215] **C. W. Chow***, C. H. Yeh, "Using downstream DPSK and upstream wavelength-shifted ASK for Rayleigh backscattering mitigation in TDM-PON to WDM-PON migration scheme," *IEEE Photonics Journal*, vol. 5, no.2, pp. 7900407, April 2013.

[216] **C. W. Chow***, C. H. Yeh, Y. F. Liu, and P. Y. Huang, "Mitigation of optical background noise in light-emitting diode (LED) optical wireless communication systems," *IEEE Photonics Journal*, vol. 5, no.1, pp. 7900307, Feb. 2013.

[217] C. H. Yeh, **C. W. Chow***, Y. F. Wu, S. P. Huang, Y. L. Liu, and C. L. Pan, "Performance of long-reach passive access networks using injection-locked Fabry-Perot laser diodes with finite front-facet reflectivities," *Journal of Lightwave Technology*, vol. 31, no. 12, pp. 1929-1934, June 2013

[218] K. Xu, L. G. Yang, J. Y. Sung, Y. M. Chen, Z. Z. Cheng, **C. W. Chow***, C. H. Yeh, and H. K. Tsang, "Compatibility of silicon Mach-Zehnder modulators for advanced modulation formats," *Journal of Lightwave Technology*, vol. 31, no. 15, pp. 2550-2554, Aug. 2013

[219] C. H. Yeh, **C. W. Chow***, and S. S. Lu, "Using a C-band reflective semiconductor optical amplifier and linear cavity laser scheme for L-band multi-wavelength lasing," *Laser Physics Letters*, vol. 10, no. 4, pp. 045108, April 2013.

[220] **C. W. Chow***, C. H. Yeh, L. G. Yang, J. Y. Sung, S. P. Huang, Gary Chou, and C. L. Pan, "Bend and twist insensitive large core multimode fiber (LCMMF) for baseband and ROF in-home data transmission," *Optics Communications*, vol. 294, pp. 78-82, May 2013.

[221] **C. W. Chow***, C. H. Yeh, Y. F. Liu, P. Y. Huang, and Y. Liu, "Adaptive scheme for maintaining the performance of the in-home white-LED visible light wireless communications using OFDM," *Optics Communications*, vol. 292, pp. 49-52, April 2013.

[222] Y. F. Wu, C. H. Yeh, **C. W. Chow**, Y. L. Liu, and J. Y. Sung, "2.5 to 10 Gbit/s laser source based on two optical-injection Fabry-Perot laser diodes," *Optical Fiber Technology*, vol. 19, pp. 579-582, Dec 2013.

[223] C. H. Yeh, **C. W. Chow**, J. H. Chen, K. H. Chen, and S. S. Lu, "Broadband C- plus L-band CW wavelength-tunable fiber laser based on hybrid EDFA and SOA," *Optical Fiber Technology*, vol. 19, no. 4, pp. 359-361, Aug. 2013.

[224] Y. F. Liu, C. H. Yeh, **C. W. Chow**, and Y. L. Liu, "AC-based phosphor LED visible light communication by utilizing novel signal modulation," *Optical and Quantum Electronics*, vol. 45, no. 10, pp. 1057-1061, Oct. 2013.

[225] C. H. Yeh, **C. W. Chow**, Y. F. Liu, and P. Y. Huang, "Simple digital FIR equalizer design for improving the phosphor LED modulation bandwidth in visible light communication," *Optical and Quantum Electronics*, vol. 45, no. 8, pp. 901-905, Aug. 2013.

[226] C. H. Yeh, **C. W. Chow**, Y. F. Wu, and F. Y. Shih, "Utilizing 1.2 GHz bandwidth reflective semiconductor optical amplifier for 1.25–10 Gbit/s for colourless and cooler-less wavelength conversion," *Optical and Quantum Electronics*, vol. 45, no. 11, pp. 1223-1227, Nov. 2013.

2012

[227] **C. W. Chow*,** S. P. Huang, L. G. Yang, and C. H. Yeh, "Extended-reach access network with downstream radio-over-fiber (ROF) signal and upstream NRZ signal using orthogonal-WDM," *Optics Express*, vol. 20, no. 15, pp. 16757-16762, July 2012.

[228] **C. W. Chow***, Y. H. Lin, "Convergent optical wired and wireless long-reach access network using high spectral-efficient modulation," *Optics Express*, vol. 20, no. 8, pp. 9243-9248, April 2012.

[229] Y. F. Liu, C. H. Yeh, **C. W. Chow***, Y. Liu, Y. L. Liu, and H. K. Tsang, "Demonstration of bi-directional LED visible light communication using TDD traffic with mitigation of reflection interference," *Optics Express*, vol. 20, no. 21, pp. 23019-23024, Oct 2012.

[230] C. H. Yeh, Y. F. Liu, **C. W. Chow***, Y. Liu, P. Y. Huang, and H. K. Tsang, "Investigation of 4-ASK modulation with digital filtering to increase 20 times of direct modulation speed of white-light LED visible light communication system," *Optics Express*, vol. 20, no. 15, pp. 16218-16223, July 2012.

[231] C. H. Yeh, **C. W. Chow***, S. P. Huang, J. Y. Sung, Y. L. Liu, and C. L. Pan, "Ring-based WDM access network providing both Rayleigh backscattering noise mitigation and fiber-fault protection," *Journal of Lightwave Technology*, vol. 30, pp. 3211-3218, Oct, 2012

[232] C. H. Yeh, **C. W. Chow*** and H. Y. Chen, "Simple colorless WDM-PON with Rayleigh backscattering noise circumvention Employing m-QAM OFDM downstream and remodulated OOK upstream signals," *Journal of Lightwave Technology*, vol. 30, pp. 2151-2155, July, 2012

[233] C. H. Yeh, **C. W. Chow**, J. H. Chen, and S. S. Lu, "Ultra-broadband amplified spontaneous emission source by using heterogeneous optical amplifier," *Laser Physics*, vol. 22, no. 11, pp. 1700-1703, Nov 2012.

[234] C. H. Yeh, **C. W. Chow**, "Semiconductor optical amplifier-based laser with 25 km long cavity length utilizing Sagnac fiber ring structure," *Laser Physics*, vol. 22, no. 11, pp. 1717-1720, Nov 2012.

[235] C. H. Yeh, **C. W. Chow**, J. Y. Sung, S. S. Lu and Y. F. Wu, "Dual-reflected-structure erbium-doped fiber laser in single-longitudinal-mode for wavelength-tuning," *Laser Physics*, vol. 22, no. 5, pp. 957-960, May 2012.

[236] C. H. Yeh, **C. W. Chow**, S. S. Lu and Y. F. Wu, "Using Saganc loop of optical-injected semiconductor laser scheme for stable and continuous CW wavelength-tuning," *Laser Physics*, vol. 22, no. 1, pp. 278-281, Jan. 2012.

[237] C. H. Yeh, **C. W. Chow**, Y. F. Wu, S. S. Lu, and Y. H. Lin, "Stable wavelength-tuning laser in single-frequency by optical-injected Fabry–Perot laser diode and RSOA for long fiber distance propagation," *Laser Physics*, vol. 22, no. 1 pp. 256-260, Jan, 2012.

[238] **C. W. Chow***, L. G. Yang, C. H. Yeh, C. B. Huang, J. W. Shi, and C. L. Pan, "10 Gb/s optical carrier distributed network with W-band (0.1 THz) short-reach wireless communication system," *Optics Communications*, vol. 285, no. 21-22, pp. 4307-4311, Oct 2012.

[239] C. H. Yeh, **C. W. Chow**, Y. F. Wu, and S. S. Lu, "An energy-efficient tie-type architecture for stable and wavelength-tunable SOA-based fiber laser," *Optics Communications*, vol. 285, no. 21-22, pp. 4470-4473, Oct 2012.

[240] C. H. Yeh, **C.W. Chow**, Y. L. Liu, "Adaptive upstream optical power adjustment depending on required power budget in PON access," *Optics Communications*, vol. 285, no. 24, pp. 4927-4930, Nov 2012.

[241] C. H. Yeh, **C. W. Chow**, F. Y. Shih, and C. L. Pan, "Adaptive upstream rate adjustment by RSOA-ONU depending on different injection power of seeding light in standard-reach and long-reach PON systems," *Optics Communications*, vol. 285, no. 17, pp. 3587-3591, August 2012.

[242] C. H. Yeh, **C. W. Chow**, F. Y. Shih, Y. F. Wu and J. Y. Sung, "Fiber-fault protection WDM-PON using new apparatus in optical networking unit," *Optics Communications*, vol. 285, no. 7, pp. 1803-1806, April 2012.

[243] C. H. Yeh, **C. W. Chow**, Y. F. Wu, and H. Y. Chen, "Demonstrations of 10 and 40 Gbps upstream transmissions using 1.2 GHz RSOA-based ONU in long-reach access networks," *Optical Fiber Technology*, vol. 18, no. 2, pp. 63-67, March, 2012.

[244] C. H. Yeh, **C. W. Chow**, J. Y. Sung, P. C. Wu, W. T. Whang and F. G. Tseng, "Measurement of organic chemical refractive index using optical time-domain reflectometer," *Sensors*, vol. 12, no. 1, pp. 481-488, Jan 2012

[245] **C. W. Chow***, C. H. Yeh, L. G. Yang, J. Y. Sung, S. P. Huang, C. -L. Pan, and G. Chou, "Design and characterization of large-core optical fiber for light-peak applications," *Optical Engineering*, vol. 51, no. 1, 015006-1, Jan 2012.

[246] C. H. Yeh, H. Y. Chen, **C. W. Chow**, and Y. F. Wu, "Using a 1.2 GHz bandwidth reflective semiconductor optical amplifier with seeding light by 64-quadrature amplitude modulation orthogonal frequency division multiplexing modulation to achieve a 10-gbits/s upstream rate in long-reach passive optical network access," *Optical Engineering*, vol. 51, no. 1, pp. 015004-1, Jan 2012.

[247] C. H. Yeh, **C. W. Chow**, H. Y. Chen, J. Y. Sung and Y. L. Liu, "Demonstration of using injection-locked Fabry-Perot laser diode for 10 Gbit/s 16-QAM OFDM WDM-PON," *Electronics Letters*, vol. 48, no. 15, pp. 940-942, July, 2012.

[248] C. H. Yeh, **C. W. Chow**, H. Y. Chen and J. Y. Sung, "Hybrid OFDM-based multi-band wireless and baseband signal transmission in PON access," *Electronics Letters*, vol. 48, no. 7, pp. 390 - 392, March 2012.

[249] C. H. Yeh, **C. W. Chow**, Y. F. Wu, F. Y. Shih, and S. Chi, "Self-protected time-division-multiplexed passive access networks in tree and ring topology architectures," *Photonic Network Communications*, vol. 23, no. 2, pp. 130-136, April, 2012.

2011

[250] **C. W. Chow***, C. H. Yeh, Stanley M. G. Lo, C. Li and H. K. Tsang, "Long-reach radio-over-fiber signal distribution using single-sideband signal generated by a silicon-modulator," *Optics Express*, vol. 19, no. 12, pp. 11312-11317, June, 2011.

[251] **C. W. Chow***, C. H. Wang, C. H. Yeh, and S. Chi, "Analysis of the carrier-suppressed single-sideband modulators used to mitigate Rayleigh backscattering in carrier-distributed PON," *Optics Express*, vol. 19, no. 11, pp. 10973-10978, May, 2011.

[252] **C. W. Chow*** and C H. Yeh, "Mitigation of Rayleigh backscattering in 10-Gb/s downstream and 2.5-Gb/s upstream DWDM 100-km long-reach PONs, *Optics Express*, vol. 19, no. 6, pp. 4970-4976, Mar 2011.

[253] C. H. Yeh, **C. W. Chow,** "Heterogeneous radio-over-fiber passive access network architecture to mitigate Rayleigh backscattering interferometric beat noise, *Optics Express*, vol. 19, no. 7, pp. 5735-5740, Mar 2011.

[254] C. H. Yeh, **C. W. Chow**, H. Y. Chen, and B. W. Chen, "Using adaptive four-band OFDM modulation with 40 Gb/s downstream and 10 Gb/s upstream signals for next generation long-reach PON," *Optics Express*, vol. 19, no. 27, pp. 26150-26160, Dec 2011.

[255] **C. W. Chow***, C. H. Yeh, Y. F. Wu, Y. H. Lin, F. Y. Shih, S. Chi, "Rayleigh backscattering circumvention in ring-based access network using RSOA-ONU," *IEEE Photonics Technology Letters*, vol. 23, no. 16, pp. 1121-1123, Aug. 2011.

[256] C. H. Yeh, **C. W. Chow**, Y. F. Wu, F. Y. Shih, J. H. Chen, and C. L. Pan, "Stable multiwavelength semiconductor laser using FWM and SBS-assisted filter," *IEEE Photonics Technology Letters*, vol. 23, no. 21, pp. 1627-1629, Nov, 2011.

[257] C. H. Yeh, **C. W. Chow**, Y. F. Wu, Y. H. Lin, B. C. Cheng, and J. H. Chen, "Using optimal cavity loss and saturable-absorber passive filter for stable and tunable dual-wavelength erbium fiber laser in single-longitudinal-mode operation," *Laser Physics Letters*, vol. 8, no. 9, pp. 672-677, Sept., 2011.

[258] C. H. Yeh, **C. W. Chow** and C. L. Pan, "Utilizing erbium fiber ring scheme and Fabry-Perot laser diode for stable and wavelength-tunable laser in single-longitudinal-mode output," *Laser Physics Letters*, vol. 8, no. 2, pp. 130-133, Feb. 2011.

[259] C. H. Yeh, **C. W. Chow,** B. C. Cheng, J. H. Chen and K. H. Chen, "Simple Erbium-doped dual-ring fiber laser configuration for stable and tunable dual-wavelength output," *Laser Physics*, vol. 21, no. 9, pp. 1645-1649, Sept. 2011.

[260] C. H. Yeh, **C. W. Chow**, Y. F. Liu and C. L. Pan, "Using dual-mode self-locked semiconductor laser for optical millimeter-wave application," *Laser Physics*, vol. 21, no. 3, pp. 496-499, March 2011.

[261] Y. F. Wu, C. H. Yeh, **C. W. Chow**, Y. F. Shih, and S. Chi, "Employing external injection-locked Fabry-Perot laser scheme for mm-wave generation," *Laser Physics*, vol. 21, no. 4, pp. 718-721, April 2011

[262] C. H. Yeh, **C. W. Chow**, K. H. Chen, and J. H. Chen, "Employing dual-saturable-absorber-based filter for stable and tunable erbium-doped fiber ring laser in single-frequency," *Laser Physics*, vol. 21, no. 5, pp. 924-927, May 2011.

[263] C. H. Yeh, **C. W. Chow**, Y. F. Wu, F. Y. Shih, and S. Chi, "Using Fabry-Perot laser diode and reflective semiconductor optical amplifier for long reach WDM-PON system," *Optics Communications*, vol. 284, no. 21, pp. 5148-5152, Oct 2011.

[264] L. Xu, **C. W. Chow**, and H. K. Tsang "Bidirectional colorless wired and wireless WDM-PON with improved dispersion tolerance for radio over fibre," *Optics Communications*, vol. 284, no. 14, pp. 3518-3521, July 2011

[265] C. H. Wang, C. H. Yeh, **C. W. Chow***, Y. F. Wu, F. Y. Shih, S. Chi, "Characterization of Rayleigh backscattering performance of CS-SSB signal in carrier distributed passive optical network," *Optics Communications*, vol. 284, no. 13, pp. 3264-3268, June, 2011.

[266] C. H. Yeh, **C. W. Chow**, Y. L. Liu "Self-protected ring-star-architecture TDM passive optical network with triple-play management," *Optics Communications*, vol. 284, no. 13, pp. 3248-3250, June 2011.

[267] C. H. Yeh, **C. W. Chow**, M. F. Chiang, F. Y. Shih, and C. L. Pan, "Compensation of power drops in reflective semiconductor optical amplifier–based passive optical network with upstream data rate adjustment," *Optical Engineering,* vol. 50, no. 9, pp. 095004-1, Sept. 2011.

[268] C. H. Yeh, **C. W. Chow**, Y. L. Liu and C. L. Pan, "40 Gb/s on–off keying downstream and 10 Gb/s on–off keying remodulated upstream signals in long-reach access network with multivideo services," *Opt. Engineering*, vol. 50, no. 12, pp. 125008-1, Dec 2011

[269] C. H. Yeh, **C. W. Chow**, P. C. Wu, and F. G. Tseng, "A simple fiber Bragg grating-based sensor network architecture with self-protecting and monitoring functions," *Sensors*, vol. 11, no. 2, pp. 1375-1382, Jan, 2011

[270] C. H. Yeh and **C. W. Chow**, "Signal remodulation ring WDM passive optical network with Rayleigh backscattering interferometric noise mitigation," *IEEE Communications Letters*, vol. 15, no. 10, pp. 1114-1116, Oct. 2011

[271] **C. W. Chow***, C. H. Yeh, Y. F. Liu, and Y. Liu, "Improved modulation speed of LED visible light communication system integrated to main electricity network," *Electronics Letters*, vol. 47, no. 15, pp. 867-868, July 2011.

[272] **C. W. Chow***, C. H. Yeh, Y. F. Wu, H. Y. Chen, Y. H. Lin, J. Y. Sung, Y. Liu, C. -L. Pan, "13-Gb/s WDM-OFDM PON using RSOA-based colorless ONU with seeding light source in local exchange," *Electronics Letters*, vol. 47, no. 22, pp. 1235 – 1236, Oct. 2011.

2010

[273] **C. W. Chow*** and C. H. Yeh, "40-Gb/s downstream DPSK and 40-Gb/s upstream OOK signal remodulation PON using reduced modulation index," *Optics Express*, vol. 18, no. 25, pp. 26046-26051, Dec. 2010.

[274] **C. W. Chow***, C. H. Yeh, L. Xu, H. K. Tsang, "Rayleigh backscattering mitigation using wavelength splitting for heterogeneous optical wired and wireless access networks," *IEEE Photonics Technology Letters*, vol. 22, no. 17, pp. 1294-1296, Sept., 2010.

[275] C. H. Yeh, **C. W. Chow**, Y. L. Liu, S. K. Wen, S. Y. Chen, C. R. Sheu, M. C. Tseng, J. L. Lin, D. Z. Hsu and S. Chi, "Theory and Technology for Standard WiMAX over Fiber in High Speed Train Systems," *Journal of Lightwave Technology*, **(Invited)**, vol. 28, no. 16, pp. 2327-2336 August, 2010

[276] **C. W. Chow***, C. H. Yeh, C. H. Wang, C. L. Wu, S. Chi, and Chinlon Lin, "Studies of OFDM Signal for Broadband Optical Access Networks," *IEEE Journal on Selected Areas in Communications*, vol. 28, no. 6, pp. 800-807, Aug. 2010

[277] L. Xu, **C. W. Chow**, H. K. Tsang, "Long reach, multicast, high split ratio wired and wireless WDM-PON using SOA for remote upconversion," Special Issue on Microwave Photonics, *IEEE Transactions on Microwave Theory and Techniques*, vol. 58, no. 11, pp. 3136-3143, Nov. 2010

[278] C. H. Yeh, **C. W. Chow**, "Wavelength-selectable single-longitudinal-mode Fabry-Perot laser source using inter-injection mode-locked technique," *Optical Fiber Technology*, vol. 16, no. 5, pp. 271-273, Oct. 2010.

[279] C. H. Wang, **C. W. Chow***, C. H. Yeh, C. L. Wu, S. Chi, and Chinlon Lin, "Rayleigh Noise Mitigation Using Single-Sideband Modulation Generated by a Dual-parallel MZM for Carrier Distributed PON," *IEEE Photonics Technology Letters*, vol. 22, pp. 820-822, June, 2010.

[280] C. H. Yeh, **C. W. Chow**, Y. F. Wu, F. Y. Shih and S. Chi, "Experimental demonstration of CW light injection effect in upstream traffic TDM-PON," *Optical Fiber Technology*, vol. 16, pp. 178-181, June, 2010

[281] C. H. Yeh, **C. W. Chow**, C. H. Wang, Y. F. Wu, F. Y. Shih and S. Chi, "Using OOK Modulation for Symmetric 40-Gb/s Long Reach Time-Sharing Passive Optical Networks," *IEEE Photonics Technology Letters*, vol. 22, pp. 619-621, May, 2010.

[282] C. H. Yeh, **C. W. Chow**, Y. C. Chang, "Wavelength-selection erbium fiber laser with single-mode operation using simple ring design," *Laser Physics*, vol. 20, pp. 830-833, April, 2010.

[283] **C. W. Chow***, L. Xu, C. H. Yeh, H. K. Tsang, W. Hofmann, and M. C. Amann, "40-Gb/s Upstream Transmitters using Directly-Modulated 1.55 μm VCSEL array for High-Split-Ratio PONs," *IEEE Photonics Technology Letters*, vol. 22, pp. 347-349, March, 2010.

[284] C. H. Yeh and **C. W. Chow**, "Single-Longitudinal-Mode Erbium-Doped Fiber Laser with Novel Scheme Utilizing Fiber Bragg Grating inside Ring Cavity," *Laser Physics*, vol. 20, pp. 512-515, Feb, 2010.

[285] **C. W. Chow**, F. M. Kuo, J. W. Shi, C. H. Yeh, Y. F. Wu, C. H. Wang, Y. T. Li, C. L. Pan, "100 GHz ultra-wideband (UWB) fiber-to-the-antenna (FTTA) system for in-building and in-home networks," *Optics Express*, vol. 18, pp. 473-478, Jan 2010

[286] C. H. Yeh, **C. W. Chow**, C. -H. Hsu, "40-Gb/s Time Division Multiplexed Passive Optical Networks Using Downstream OOK and Upstream OFDM Modulations," *IEEE Photonics Technology Letters*, vol. 22, pp. 118-120, Jan, 2010.

[287] C.-H. Yeh, **C. W. Chow**, "Broadband Wavelength-Tunable Single-Longitudinal-Mode Erbium-Doped Fiber Ring Laser Using Saturable-Absorber Filter," *Laser Physics Letters,* vol. 7, pp. 158-163, Jan, 2010.

[288] F. Y. Shih, C. H. Yeh, **C. W. Chow,** C. H. Wang and S. Chi, "Utilization of Self-Injection Fabry-Perot Laser Diode for Long-Reach WDM-PON," *Optical Fiber Technology*, vol. 16, pp. 46-49, Jan. 2010.

2009

[289] **C. W. Chow***, A. D. Ellis, F. Parmigiani, "Time-division-multiplexing using pulse position locking for 100 Gb/s applications," *Optics Express*, vol. 17, pp. 6562-6567, 2009.

[290] **C. W. Chow***, L. Xu, C. H. Yeh, C. H. Wang, F. Y. Shih, H. K. Tsang, C. L. Pan and S. Chi, "Mitigation of Signal Distortions using Reference Signal Distribution with Colorless Remote Antenna Units for Radio-over-Fiber Applications," *Journal of Lightwave Technology*, vol. 27, pp. 4773-4780, 2009

[291] **C. W. Chow***, C. H. Yeh, C. H. Wang, F. Y. Shih and S. Chi, "Signal Remodulated Wired/Wireless Access using Reflective Semiconductor Optical Amplifier with Wireless Signal Broadcast," *IEEE Photonics Technology Letters*, vol. 21, pp. 1460-1462, 2009.

[292] **C. W. Chow***, C. H. Yeh, C. H. Wang, F. Y. Shih and S. Chi, "Signal remodulation of OFDM-QAM for long reach carrier distributed passive optical networks," *IEEE Photonics Technology Letters*, vol. 21, pp. 715-717, 2009.

[293] C. H. Yeh, **C. W. Chow**, F. Y. Shih, Y. F. Wu, C. H. Wang and S. Chi, "Wavelength Tunable Laser for Signal Remodulation in WDM Access Networks Using DPSK Downlink and OOK Uplink," *IEEE Photonics Technology Letters*, vol. 21, pp. 1710-1712, 2009.

[294] C. H. Yeh, **C. W. Chow**, F. Y. Shih, C. H. Wang, Y. F. Wu and S. Chi, "Tunable dual-wavelength fiber laser using optical-injection Fabry-Perot laser," *IEEE Photonics Technology Letters*, vol. 21, pp. 125-127, February 2009.

[295] L. Xu, C. Li, **C. W. Chow** and H. K. Tsang, "Optical mm-wave signal generation by frequency quadrupling using an optical modulator and a silicon microresonator filter," *IEEE Photonics Technology Letters*, vol. 21, pp. 209-211, 2009.

[296] **C. W. Chow*** and C. H. Yeh, "Advanced Modulation Formats for Delivery of Heterogeneous Wired and Wireless Access Networks", *Optics Communications*, vol. 208, pp. 4688-4692, 2009.

[297] **C. W. Chow***, C. H. Yeh, "Characterization of Phase Modulated Non-return-to-zero (PM-NRZ) Format for DWDM Long Reach PONs," *Optics Communications*, vol. 282, pp. 2787-2791, 2009.

[298] C. H. Yeh, **C. W. Chow**, "Utilization of Four WDM Channels with Signal Remodulation of OFDM-QAM for 10-Gb/s Uplink Passive Optical Networks," *Optics Communications*, vol. 282, pp. 3701-3705, 2009.

[299] **C. W. Chow***, C. H. Yeh, "Signal remodulation without power sacrifice for carrier distributed hybrid WDM-TDM PONs using PolSK," *Optics Communications*, vol. 282, pp. 1294-1297, 2009.

[300] C. H. Wang, F. Y. Shih, C. H. Yeh, **C. W. Chow** and S. Chi, "10 Gb/s TDM passive optical networks using four wavelengths multiplexed channels," *Optics Communications*, vol. 282, pp. 2476-2479, 2009.

[301] C. H. Yeh, F. Y. Shih, S. Wen, **C. W. Chow** and S. Chi, "Using C-band erbium-doped fiber amplifier with two-ring scheme for broadly wavelength-tuning fiber ring laser," *Optics Communications*, vol. 282, pp. 546-549, 2009.

[302] C. H. Yeh, **C. W. Chow**, Y. F. Wu, F. Y. Shih, C. H. Wang and S. Chi, "Multiwavelength erbium-doped fiber ring laser employing Fabry-Perot etalon inside cavity operating in room-temperature," *Optical Fiber Technology*, vol. 15, no. 4, pp. 344-347, August 2009.

[303] C. H. Yeh, **C. W. Chow** and S. Chi, "Using 10 Gb/s remodulation DPSK signal in self-restored colorless WDM-PON system," *Optical Fiber Technology*, vol. 15, pp. 274-278, 2009.

[304] **C. W. Chow***, C. H. Yeh, C. H. Wang, F. Y. Shih and S. Chi, "Signal Remodulation High Split-ratio Hybrid WDM-TDM PONs using RSOA-based ONUs," *Electronics Letters*, vol. 45. pp. 903-905, 2009.

[305] L. Xu, C. Li, H. K. Tsang, and **C. W. Chow**, "Optical frequency doubling for multichannel radio-over-fiber system based on integrated phase modulator and silicon coupled-microring notch filter," *Electronics Letters*, vol. 45, no. 13, pp. 697-698, June 2009.

[306] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu and S. Chi, "Using multi-mode Fabry-Perot laser without external-injection for wavelength conversion," *Electronics Letters*, vol. 45, pp. 327-329, 2009.

[307] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu and S. Chi, "A simple self-restored fiber Bragg grating (FBG)-based passive sensing network," *Measurement Science and Technology*, vol. 20, pp. 043001, April 2009

[308] C. H. Yeh, T. T. Huang, M. C. Lin, **C. W. Chow**, S. Chi, "Simultaneously gain-flattened and gain-clamped erbium fiber amplifier," *Laser Physics*, vol. 19, pp. 1246-1251, 2009.

[309] C.-H. Yeh, **C.-W. Chow**, C.-H. Wang, F.-Y. Shih, Y.-F. Wu, Y.-L. Liu, and S. Chi, "Understanding Standard OFDM WiMAX Signal Access in Radio over Fiber System," *Progress In Electromagnetics Research (PIER) C*, vol. 10, pp. 201-214, 2009

[310] S. Chi, C. H. Yeh, and **C. W. Chow,** "Broadband access technology for passive optical network," *Proc. of SPIE*, vol. 7234, 723408-1 (Invited Paper)

[311] C. H. Yeh, **C. W. Chow,** Y. F. Wu, F. Y. Shih, C. H. Wang and S. Chi, "Multiwavelength Erbium-Doped Fiber Ring Laser Employing Fabry-Perot Etalon," *Proc. of SPIE*, vol. 7630, 763021-1

[312] C. H. Yeh, **C. W. Chow,** F. Y. Shih, Y. F. Wu, C. H. Wang and S. Chi, "Bidirectional Single-Ring-Architecture Self-Protected TDM Passive Optical Network," *Proc. of SPIE*, vol. 7632, 76322R-1

[313] C. H. Wang, **C. W. Chow,** C. H. Yeh, Y. F. Wu, F. Y. Shih, and S. Chi, "Demonstration of Hybrid 10Gb/s PON and 10Gb/s OFDM ROF Architecture Towards Next Generation Access Networks," *Proc. of SPIE*, vol. 7632, 76322P-1

2008

[314] A. D. Ellis, D. Cotter, S. Ibrahim, R. Weerasuriya, **C. W. Chow**, J. Leuthold, W. Freude, S. Sygletos, P. Vorreau, R. Bonk, D. Hillerkuss, I. Tomkos, A. Tzanakaki, C. Kouloumentas, D. J. Richardson, P. Petropoulos, F. Parmigiani, G. Zarris, and D. Simeonidou, "Optical interconnection of core and metro networks [Invited]," *Journal of Optical Networking*, vol. 7, pp. 928-934, 2008

[315] **C. W. Chow***, C. H. Yeh, C. H. Wang, F. Y. Shih, and S. Chi "Rayleigh Backscattering Performance of OFDM-QAM in Carrier Distributed Passive Optical Networks," *IEEE Photonics Technology Letters*, vol. 20, pp. 1848-1850, 2008.

[316] **C. W. Chow***, C. H. Yeh, C. H. Wang, F. Y. Shih, C. L. Pan, and S. Chi, "WDM extended reach passive optical networks using OFDM-QAM," *Optics Express*, vol. 16, pp. 12096-12101, 2008.

[317] **C. W. Chow***, "Wavelength Remodulation Using DPSK Down-and-Upstream With High Extinction Ratio for 10-Gb/s DWDM-Passive Optical Networks," *IEEE Photonics Technology Letters*, vol. 20, pp.12-14, 2008.

[318] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu, and S. Chi, "Using four wavelength-multiplexed self-seeding Fabry-Perot lasers for 10 Gbps upstream traffic in TDM-PON," *Optics Express*, vol. 16, pp. 18857-18862, 2008.

[319] G. Talli, **C. W. Chow**, P. D. Townsend, "Modeling of modulation formats for interferometric noise mitigation," *Journal of Lightwave Technology*, vol. 26, pp. 3190-3198, 2008

[320] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, C. H. Chien, and S. Chi, "A self-protected colorless WDM-PON with 2.5 Gb/s upstream signal based on RSOA," *Optics Express*, vol. 16, pp. 12296-12301, 2008.

[321] **C. W. Chow**, G. Talli, A. D. Ellis, and P. D. Townsend, "Rayleigh noise mitigation in DWDM LR-PONs using carrier suppressed subcarrier-amplitude modulated phase shift keying," *Optics Express*, vol. 16, pp. 1860-1866, 2008.

[322] C. H. Yeh, F. Y. Shih, C. H. Wang, **C. W. Chow**, and S. Chi, "Cost-effective wavelength-tunable fiber laser using self-seeding Fabry-Perot laser diode," *Optics Express*, vol. 16, pp. 435-439, 2008.

[323] C. H. Yeh, F. Y. Shih, C. H. Wang, **C. W. Chow,** and S. Chi, "Tunable and stable single-longitudinal-mode dual-wavelength erbium fiber laser with 1.3 nm mode spacing output," *Laser Physics Letters*, vol. 5, pp. 821-824, July, 2008.

[324] C. H. Yeh, F. Y. Shih, **C. W. Chow,** and S. Chi, "Dual-wavelength S-band erbium-doped fiber double-ring laser," *Laser Physics*, vol. 18, No. 12, pp. 1553–1556, Dec, 2008.

2007

[325] **C. W. Chow***, A. D. Ellis, and D. Cotter, "Asynchronous Digital Optical Regenerator for 4 X 40 Gbit/s WDM to 160 Gbit/s OTDM Conversion," *Optics Express*, vol.15, no. 14, pp. 8507-8512, July, 2007.

[326] G. Talli, **C. W. Chow**, E. K. MacHale, and P. D. Townsend, "Rayleigh noise mitigation in long-reach hybrid DWDM-TDM PONs," *OSA Journal of Optical Networking*, vol. 6, no. 6, pp. 765-776, June, 2007

[327] **C. W. Chow***, G. Talli, and P. D. Townsend, "Rayleigh Noise Reduction in 10-Gb/s DWDM-PONs by Wavelength Detuning and Phase Modulation Induced Spectral Broadening," *IEEE Photonics Technology Letters*, vol. 19, no. 6, pp. 423-425, March, 2007.

[328] Y. Liu, **C. W. Chow**, C. H. Kwok, H. K. Tsang and Chinlon Lin, "Dynamic-Channel-Equalizer using In-Line Channel Power Monitor and Electronic Variable Optical Attenuator," *Optics Communications*, vol. 272, pp. 87-91, April., 2007.

2006

[329] **C. W. Chow***, C. H. Kwok, H. K. Tsang, and Chinlon Lin, "Optical Label Switching of DRZ/DPSK Orthogonal Signal Generated by Photonic Crystal Fiber," *Optics Letters*, vol. 31, no. 17, pp. 2535-2537, Sept., 2006

[330] Y. Liu, **C. W. Chow**, W. Y. Cheung, and H. K. Tsang, "In-line Channel Power Monitor based on Helium Ion Implantation in Silicon-on-Insulator Waveguides," *IEEE Photonics Technology Letters*, vol. 18, no. 17, pp. 1882-1884, Sept., 2006.

[331] **C. W. Chow*** and A. D. Ellis, "Serial Dark Soliton for 100 Gb/s Applications", *IEEE Photonics Technology Letters,* vol. 18, no. 14, pp. 1521-1523, July, 2006.

[332] C. H. Kwok, **C. W. Chow**, H. K. Tsang, Chinlon Lin and A. Bjarklev, "Nonlinear Polarization Rotation in a Dispersion-Flattened Photonic-Crystal Fiber for Ultra-Wide Band (> 100 nm) All-Optical Wavelength Conversion of 10 Gb/s NRZ Signals" *Optics Letters,* vol. 31, no. 12, pp. 1782-1784, June, 2006

[333] A. D. Ellis and **C. W. Chow**, "Serial OTDM for 100 GB Ethernet applications," *Electronics Letters*, vol. 42, no. 8, pp. 485-486, April., 2006.

[334] **C. W. Chow***, C. H. Kwok, H. K. Tsang and Chinlon Lin, "3-bit/symbol optical data format based on simultaneous DRZ, DPSK and PolSK orthogonal modulations," *Optics Express*, vol. 14, no. 5, pp. 1720-1725, March, 2006.

2005

[335] **C. W. Chow*** and H. K. Tsang, "Orthogonal Label Switching using Polarization-Shift-Keying Payload and Amplitude-Shift-Keying Label", *IEEE Photonics Technology Letters,* vol. 17, no. 11, pp. 2475-2477, Nov., 2005.

[336] **C. W. Chow*** and H. K. Tsang, "Optical label encoding and swapping using half-bit delayed dark RZ payload and DPSK label," *Optics Express*, vol. 13, no. 14, pp. 5325-5330, July, 2005.

[337] **C. W. Chow*** and H. K. Tsang, "Polarization independent DPSK demodulation using a birefringent fiber loop," *IEEE Photonics Technology Letters*, vol. 17, no. 6, pp. 1313-1315, June, 2005.

[338] **C. W. Chow***, C. S. Wong, and H. K. Tsang, "Reduction of amplitude transients and BER of direct modulation laser using birefringent fiber loop," *IEEE Photonics Technology Letters*, vol. 17, no. 3, pp. 693-695, March, 2005.

2004

[339] **C. W. Chow*,** C. S. Wong, and H. K. Tsang, "All-optical modulation format conversion and multicasting using injection-locked laser diodes," *IEEE/OSA Journal of Lightwave Technology*, vol. 22, no. 11, pp. 2386-2392, Nov., 2004

[340] **C. W. Chow*,** C. S. Wong, and H. K. Tsang, "Optical packet labeling based on simultaneous polarization shift keying and amplitude shift keying," *Optics Letters,* vol. 29, no. 16, pp. 1861-1863, August, 2004

[341] **C. W. Chow*,** C. S. Wong, and H. K. Tsang, "High repetition rate pulses generated by differential phase assisted injection-locking of Fabry-Perot laser diode," *Optics Communications*, vol. 241, pp. 437-442, July, 2004.

[342] **C. W. Chow*,** C. S. Wong, and H. K. Tsang, "All-optical ASK/DPSK label-swapping and buffering using Fabry-Perot laser diodes," *IEEE Journal of Selected Topics in Quantum Electronics*, vol. 10, no. 2, pp. 363-370, March, 2004

2003

[343] **C. W. Chow*,** C. S. Wong, and H. K. Tsang, "All-optical data-format and wavelength-conversion in two-wavelength injection-locked slave Fabry-Perot laser diodes," *Electronics Letters*, vol. 39, no. 13, pp. 997-999, June, 2003.

[344] **C. W. Chow*,** C. S. Wong, and H. K. Tsang, "All-optical RZ to NRZ data format and wavelength conversion using an injection locked laser," *Optics Communications*, vol. 223, pp. 309-313, June, 2003.

2002

[345] **C. W. Chow,** C. S. Wong, and H. K. Tsang, "All-optical NRZ to RZ format and wavelength converter by dual-wavelength injection locking," *Optics Communications*, vol. 209, pp. 329-334, June, 2002.

Conference Presentations

2023

[1] Y. H. Chang, **C. W. Chow***, C. C. Wang, Y. H. Jian, W. H. Gunawan, Y. Liu, and C. H. Yeh, "Free-space visible light communication with downstream and upstream transmissions supporting multiple moveable receivers using light-diffusing fiber" *Optical Fiber Communication Conference (OFC)*, USA, 2023. Paper M4F.5.

[2] Y. H. Jian, C. C. Wang, T. C. Wei, Y. K. Hong, H. M. Chen, **C. W. Chow***, Y. Liu, C. H. Yeh, "Optical beam steerable and flexible data rate orthogonal frequency division multiplexing non-orthogonal multiple access (OFDM-NOMA) visible light communication," *Optical Fiber Communication Conference (OFC)*, USA, 2023. Paper M4F.3.

[3] Y. H. Chang, D. C. Tsai, **C. W. Chow***, C. C. Wang, S. Y. Tsai, Y. Liu, and C. H. Yeh, "Lightweight light-diffusing fiber transmitter equipped unmanned-aerial-vehicle (UAV) for large field-of-view (FOV) optical wireless communication," *Optical Fiber Communication Conference (OFC)*, USA, 2023. Paper Th3H.6.

2022

[4] L. S. Hsu, **C. W. Chow***, Y. Liu, Y. H. Chang, D. C. Tsai, T. Y. Hung, Y. Z. Lin, Y. H. Jian and C. H. Yeh, "3-dimensional visible light positioning (VLP) using two-stage neural network (TSNN) and signal-strength-enhancement (SSE) to mitigate light non-overlapping regions," *European Conference on Optical Communication (ECOC)*, 2022, Paper Tu5.52.

[5] D. C. Tsai, Y. H. Chang, S. Y. Tsai, L. S. Hsu, **C. W. Chow***, C. W. Peng, Y. Z. Lin, Y. H. Jian, Y. Liu and C. H. Yeh,"166-m rolling shutter based free space optical communication (FSO) utilizing long short term memory neural network (LSTM-NN) for decoding PAM4 signal," *European Conference on Optical Communication (ECOC)*, 2022, Paper We3F.3.

[6] D. C. Tsai, Y. H. Chang, Y. Liu, **C. W. Chow***, Y. S. Lin, C. H. Yeh, "Wide field-of-view (FOV) light-diffusing fiber optical transmitter for rolling shutter based optical camera communication (OCC)" *Optical Fiber Communication Conference (OFC)*, USA, 2022. Paper Tu3C.3.

[7] C. W. Peng, D. C. Tsai, Y. S. Lin, **C. W. Chow***, Y. Liu, C. H. Yeh, "Long short-term memory neural network to enhance the data rate and performance for rolling shutter camera based visible light communication (VLC)," *Optical Fiber Communication Conference (OFC)*, USA, 2022. Paper W3I.5.

[8] P. C. Kuo, S. I. Kuo, J. W. Wang, Y. H. Jian, Z. Ahmad, P. H. Fu, Y. C. Chang, J. W. Shi, D. W. Huang, Y. Liu, C. H. Yeh, **C. W. Chow***, "Actively steerable integrated optical phased array (OPA) for optical wireless communication (OWC)," *Optical Fiber Communication Conference (OFC)*, USA, 2022. Paper M1C.7. **(Top Scored Paper)**

[9] L. S. Hsu, D. C. Tsai, H. M. Chen, Y. H. Chang, Y. Liu, **C. W. Chow***, S. H. Song, C. H. Yeh, "Using received-signal-strength (RSS) pre-processing and convolutional neural network (CNN) to enhance position accuracy in visible light positioning (VLP)," *Optical Fiber Communication Conference (OFC)*, USA, 2022. Paper W3I.6.

[10] Y. H. Chang, F. J. Liou, Y. M. Huang, W. H. Gunawan, **C. W. Chow***, H. C. Kuo, Y. Liu, C. H. Yeh, "High-speed white light visible light communication (VLC) based on semipolar (20-21) blue micro-light emitting diode (μ-LED)," *Optical Fiber Communication Conference (OFC)*, USA, 2022. Paper Tu3C.1.

[11] W. H. Gunawan, Y. H. Chang, **C. W. Chow***, Y. Liu, C. H. Yeh, "High speed RGB visible light communication (VLC) using digital power-domain multiplexing (DPDM) of orthogonal frequency division multiplexed (OFDM) signals," *Optical Fiber Communication Conference (OFC)*, USA, 2022. Paper Th2A.24.

[12] H. C. Lin, L. S. Hsu, **C. W. Chow***, and C. H. Yeh, "Optimization of long short term memory neural network (LSTMNN) based visible light positioning (VLP) system to enhance the positioning accuracy," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 2022-FRI-S0201-O006, Dec 2022.

[13] S. Y. Tsai, D. C. Tsai, **C. W. Chow***, C. H. Yeh, "Wide field-of-view (FOV) visible light communication (VLC) system using LED light panel and machine learning," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 2022-SAT-P0201-P011, Dec 2022.

[14] S. C. Lin, Y. H. Chang, H. C. Chung and **C. W. Chow***, "Mitigation of thermal rollover in VCSEL based time-of-flight sensing application," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 2022-SAT-P0201-P014, Dec 2022.

[15] C. J. Tsai, Y. Y. Chen, Y. C. Lin, Y. H. Lin, C. H. Yeh, S. E. Hsieh, **C. W. Chow**, "L-band single-frequency erbium fiber laser based on eight-fiber-ring configuration," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 2022-SUN-P0202-P001, Dec 2022.

[16] S. E. Hsieh, S. Y. Jiang, C. H. Hsu, Y. T. Lai, L. Y. Chen, H. S. Ko, C. H. Yeh, S. K. Liaw, **C. W. Chow**, "Selectable and stabilized single-mode erbium fiber laser in C+L band operation," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 2022-SUN-P0202-P004, Dec 2022.

[17] C. H. Hsu, S. Y. Jiang, S. E. Hsieh, Y. T. Lai, L. Y. Chen, C. H. Yeh, W. P. Lin, C. W. Chow, "Hybrid FSO-WDM passive network together with fiber fault prevention," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 2022-SUN-P0202-P005, Dec 2022.

2021

[18] Y. H. Chang, G. H. Chang, F. J. Liou, C. W. Peng, W. H. Gunawan, **C. W. Chow***, H. C. Kuo, Y. Liu, C. H. Yeh, "3.129-Gbit/s OFDM visible light communication using semipolar green μ-light emitting diode (μ-LED) array" *Optical Fiber Communication Conference (OFC)*, USA, 2021. Paper F1A.1.

[19] S. H. Song, D. C. Lin, Y. H. Chang, Y. S. Lin, **C. W. Chow***, Y. Liu, C. H. Yeh, K. H. Lin, Y. C. Wang, Y. Y. Chen, "Using DIALux and regression-based machine learning algorithm for designing indoor visible light positioning (VLP) and reducing training data collection," *Optical Fiber Communication Conference (OFC)*, USA, 2021. Paper Tu5E.3.

[20] P. C. Kuo, Y. Tong, **C. W. Chow***, J. F. Tsai, Y. Liu, Y. C. Chang, C. H. Yeh, H. K. Tsang, "4.36 Tbit/s silicon chip-to-chip transmission via few-mode fiber (FMF) using 2D sub-wavelength grating couplers," *Optical Fiber Communication Conference (OFC)*, USA, 2021. Paper M3D.6.

[21] C. W. Peng, D. Chan, Y. Tong, **C. W. Chow***, Y. Liu, C. H. Yeh, H. K. Tsang, "Long short-term memory neural network for mitigating transmission impairments of 160 Gbit/s PAM4 microring modulation," *Optical Fiber Communication Conference (OFC)*, USA, 2021. Paper Tu5D.3.

[22] W. H. Gunawan, **C. W. Chow***, Y. Liu, C. H. Yeh, "Embedded orthogonal-frequency-division-multiplexing (OFDM) to color-shift-keying (CSK) modulation for laser-diode based visible light communication (VLC)," *Optical Fiber Communication Conference (OFC)*, USA, 2021. Paper F1A.3.

[23] Y. S. Lin, Y. Liu, **C. W. Chow***, Y. H. Chang, D. C. Lin, S. H. Song, K. L. Hsu, C. H. Yeh, "Z-score averaging neural network and background content removal for high performance rolling shutter based optical camera communication (OCC)," *Optical Fiber Communication Conference (OFC)*, USA, 2021. Paper F1A.4

[24] Y. H. Chang, F. J. Liou, W. H. Gunawan, **C. W. Chow***, Y. Liu, H. C. Kuo, and C. H. Yeh, "High bandwidth semipolar (20-21) μ-LED serving as photo-receiver for visible light communication," *European Conference on Optical Communication (ECOC)*, France, Sept. 2021, Paper We3B.2

[25] L. S. Hsu, D. C. Lin, **C. W. Chow***, T. Y. Hung, Y. H. Chang, C. W. Peng, Y. Liu, C. H. Yeh, and K. H. Lin, "Using machine learning and light spatial sequence arrangement for copying positioning unit cell to reduce training burden in visible light positioning (VLP)," *Wireless and Optical Communications Conference (WOCC 2021)*, Paper O-2, Paper 2 Oct.

[26] D. C. Tsai, Y. S. Lin, Y. H. Chang, L. S. Hsu, **C. W. Chow***, Y. Liu, C. H. Yeh, and K. H. Lin, "Using pixel-per-bit neural network for two rolling shutter patterns decoding in optical camera communication (OCC)," *Wireless and Optical Communications Conference (WOCC 2021)*, Paper O-2, Paper 1**(Paper Award)**

[27] T. K. Wu, Y. H. Chang, C. H. Yeh, and **C. W. Chow***, "Design of multiple half-spherical lenses with compound parabolic concentrator (CPC) for high field-of-view (FOV) visible light communication (VLC) receiver," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0423, Dec 2021.

[28] T. Y. Hung, P. C. Kuo, C. W. Peng, G. H. Chen, C. H. Yeh, and **C. W. Chow***, "Compact silicon photonics polarization splitter and rotator (PSR) based on asymmetrical directional coupler and adiabatic step waveguide taper," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0407, Dec 2021.

[29] T. T. Tsai, Y. H. Chang, C. H. Yeh, and **C. W. Chow***, "130-m non-flickering white-light under-sampled phase shift on-off-keying (UPSOOK) visible light communication (VLC) using camera receiver," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0357, Dec 2021.

[30] T. W. Yu, T. Y. Hung, P. C. Kuo, C. W. Peng, G. H. Chen, C. H. Yeh, and **C. W. Chow***, "Design of silicon photonics zigzag structured metasurface mode converter using genetic algorithm (GA) for optimization," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0670, Dec 2021.

[31] W. H. Hsu, B. Y. Wang, Y. C. Chen, C. H. Yeh, **C. W. Chow**, and S. K. Liaw, "A self-protected TWDM-PON based on fiber- and FSO-links for long-reach application," *Optics & Photonics Taiwan International Conference*

(OPTIC), Taiwan, Paper 0132, Dec 2021.

[32] B. Y. Wang, W. H. Hsu, C. H. Yeh, and **C. W. Chow**, "Utilization of dual-polarized signal in WDM-PON with long-reach fiber transmission," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0134, Dec 2021.

[33] L. H. Liu, H. S. Ko, C. H. Yeh, **C. W. Chow**, J. H. Chen, "Steady single-mode fiber laser exploiting quad-ring architecture," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0136, Dec 2021.

[34] L. C. Chen, Y. T. Lai, C. H. Yeh, J. H. Chen, and **C. W. Chow**, "Stabilized single-frequency and switchable-wavelength erbium laser applying multi-ring design," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0137, Dec 2021

2020

[35] D. C. Lin, Y. C. Wu, C. Y. Hong, S. H. Song, Y. S. Lin, Y. Liu, C. H. Yeh, and **C. W. Chow***, "3-D indoor visible light positioning (VLP) system based on linear regression or kernel ridge regression algorithms," IEEE Global Communications Conference, IEEE Globecom Workshops, WS-01 OWC, Session III-4, Dec. 2020.

[36] **C. W. Chow***, C. H. Yeh, and Y. Liu, "Optical wireless communications (OWC) - technologies and applications (Invited Paper)," 25th Optoelectronics and Communications Conference (OECC), Taiwan, Paper T1-1.1. Oct. 2020

[37] Y. H. Chang, P. H. Yang, C. H. Yeh, and **C. W. Chow**, "Passive 100W high power bias-tee for visible light communication systems," 25th Optoelectronics and Communications Conference (OECC), Taiwan, Paper T1-1.2. Oct. 2020

[38] J. R. Chen, W. Y. You, C. H. Yen, J. H. Chen, and **C. W. Chow**, "Simple erbium fiber laser architecture for stable tunability and single-mode oscillation," 25th Optoelectronics and Communications Conference (OECC), Taiwan, Paper P03, Oct. 2020

[39] A. Adnan, W. H. Gunawan, C. H. Yeh, Y. Liu, and **C. W. Chow***, "Using non-Hermitian symmetry IFFT/FFT size efficient OFDM for non-orthogonal multiple access visible ligth communication (NOMA VLC) networks," 25th Optoelectronics and Communications Conference (OECC), Taiwan, Paper P09, Oct. 2020

[40] **C. W. Chow***, Y. H. Chang, L. Y. Wei, C. H. Yeh, and Y. Liu, "26.228-Gbit/s RGBV visible light communication (VLC) with 2-m free space transmission," 25th Optoelectronics and Communications Conference (OECC), Taiwan, Paper P38, Oct. 2020

[41] D. W. U. Chan, Y. Tong, G. H. Chen, **C. W. Chow**, and H. K. Tsang, "280 Gb/s dual-polarization transmitter using Ge-on-Si EAMs for short-reach interconnects," IEEE Photonics Conference (IPC), Sept 2020

[42] **C. W. Chow***, C. H. Yeh, Y. Liu, Y. Lai, L. Y. Wei, C. W. Hsu, G. H. Chen, X. L. Liao and K. H. Lin, "Enabling techniques for optical wireless communication systems (Invited paper)" *Optical Fiber Communication Conference (OFC)*, USA, 2020. Paper M2F.1.

[43] Y. Tong, X. Zhou, Y. Wang, **C. W. Chow**, and H. K. Tsang, "Bridging the graded-index few-mode fibre with photonic integrated circuits via efficient diffraction waveguide gratings," European Conference on Integrated Optics (ECIO), Italy, June 2020.

[44] P. C. Guo, J. F. Tsai, C. J. Chen, C. W. Peng, G. H. Chen, C. H. Yeh, Y. Tong, H. K. Tsang, and **C. W. Chow**, "Multimode silicon-on-insulator (SOI) waveguide grating coupler based mode multiplexer and demultiplexer for few mode fiber (FMF) transmission," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0437, Dec 2020

[45] S. H. Song, D. C. Lin, Y. S. Lin, C. Y. Hong, Y. C. Wu, H. F. Meng, C. H. Yeh, and **C. W. Chow**, "Using organic photovoltaic cell receiver and linear regression machine learning algorithm in visible light positioning (VLP)," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0510, Dec 2020

[46] S. Barat and **C. W. Chow**, "Using Gaussian filtering and polynomial curve fitting to improve signal decoding in optical camera communication (OCC)," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0705, Dec 2020

[47] J. R. Chen, W. Y. You, C. H. Yeh and **C. W. Chow**, "Use of FSO signal in WDM access architecture to avoid Rayleigh backscattering noise," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0081, Dec 2020

[48] W. Y. You, J. R. Chen, C. H. Yeh, W. P. Lin, and **C. W. Chow**, "Long-reach ring-type WDM-PON with Rayleigh backscattering beat noise alleviation," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0082, Dec 2020

[49] Y. Z. Lin, G. H. Li, H. W. Chang, C. H. Yeh, J. H. Chen, and **C. W. Chow**, "Utilizing multiple-fiber-ring design for 60 nm tunability fiber laser with single-longitudinal-mode output," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0083, Dec 2020

[50] Y. Z. Lin, B. W. Huang, P. M. Yen, C. H. Yeh, and **C. W. Chow**, "Applying self-injected loop for continuous and

adjustable single-longitudinal-mode erbium laser," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0084, Dec 2020

[51] C. J. Chen, P. C. Guo, P. Y. Tai, J. F. Tsai, C. W. Peng, G. H. Chen, C. H. Yeh, and **C. W. Chow**, "Compact silicon photonics mode converter utilizing the subwavelength grating based asymmetrical directional coupler," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0477, Dec 2020

[52] Y. S. Lin, D. C. Lin, S. H. Song, K. L. Hsu, C. H. Yeh, and **C. W. Chow**, "Employing logistic regression and data preprocessing to demodulate rolling shutter pattern in optical camera communication (OCC)," *Optics & Photonics Taiwan International Conference (OPTIC)*, Taiwan, Paper 0519, Dec 2020

2019

[53] G. H. Chen, C. W. Peng, M. W. Cheng, P. C. Guo, J. F. Tsai, Y. Tong, **C. W. Chow***, C. H. Yeh, and H. K. Tsang, "Silicon-photonics based remote-radio-head using mode and wavelength division multiplexing with capacity of 4.781 Tbit/s for radio-over-fiber massive MIMO," *European Conference on Optical Communication (ECOC)*, Dublin, Ireland, Sept. 2019. Paper 4456235.

[54] L. Y. Wei, C. W. Hsu, **C. W. Chow**, C. H. Yeh, "40-Gbit/s visible light communication using polarization-multiplexed R/G/B laser diodes with 2-m free-space transmission," *Optical Fiber Communication Conference (OFC)*, M3I.3, March 2019.

[55] **C. W. Chow***, G. H. Chen, C. W. Peng, L. Y. Wei, C . H . Yeh, Y . Liu, "Digital signal processing for visible light communication applications (Invited)," Asia Communications and Photonics Conference (ACP) Paper T4E.2, Chengdu, China, Nov. 2019.

[56] C. W. Peng, M. W. Cheng, G. H. Chen, P. C. Guo, J. F. Tsai, **C. W. Chow***, "Design of silicon photonics based enhanced evanescent coupling mode-division multiplexer and de-multiplexer for footprint reduction," Asia Communications and Photonics Conference (ACP) Paper M4A.270, Chengdu, China, Nov. 2019.

[57] Assaidah and **C. W. Chow**, "Performances of M-ACO-OFDM, DCO-OFDM and M-GLIM OFDM in Visible Light Communication Systems," 2019 25th Asia-Pacific Conference on Communications (APCC), 2019, pp. 297-300. Nov. 2019. Ho Chi Minh city, Vietnam

[58] Y. Hsu, C. Y. Chuang, Y. Tong, **C. W. Chow**, J. Chen, Y. C. Lai, C. H. Yeh, Y. K. Chen, H. K. Tsang, "Implementing deep neural network for signal transmission distortion mitigation of PAM-4 generated by silicon Mach-Zehnder modulator," 24th OptoElectronics and Communications Conference (OECC) and 2019 International Conference on Photonics in Switching and Computing (PSC), Japan July 2019

[59] Y. R. Xie, C. M. Luo, J. H. Chen, C. H. Yeh, **C. W. Chow**, Y. C. Chang, K. H. Chen, "Uses of silicon microring resonator and saturable absorber for tunable single-mode erbium fiber laser," 24th OptoElectronics and Communications Conference (OECC) and 2019 International Conference on Photonics in Switching and Computing (PSC), Japan, July 2019

[60] P. C. Guo, J. F. Tsai, G. H. Chen, C. W. Peng, **C. W. Chow**, C. H. Yeh, "Silicon-on-insulator based mode-division-multiplexed waveguide supporting bends," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0134

[61] Y. R. Xie, C. M. Luo, J. H. Weng, Y. C. Yang, Y. W. Chen, T. A. Hsu, B. C. Wu, **C. W. Chow**, and C. H. Yeh, "Utilizing polarization-color-multiplexing technology for broadband LED visible Li-Fi communication indoors," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0171.

[62] J. F. Tsai, P. C. Guo, G. H. Chen, C. W. Peng, **C. W. Chow**, and C. H. Yeh, "Silicon-on-insulator based broadband multimode 3-dB power splitter," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0148.

[63] C. Y. Hong, L. Y. Wei, Y. C. Wu, K. L. Hsu, **C. W. Chow**, and C. H. Yeh, "Angle of arrival based visible light positioning system using a quadrant solar-cell," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0367.

[64] Y. C. Wu, K. L. Hsu, C. Y. Hong, C. W. Peng, **C. W. Chow**, and C. H. Yeh, "Using linear interpolation to reduce the training samples for machine learning based visible light positioning system," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0368

[65] L. Y. Wei, C. M. Luo, Y. R. Xie, **C. W. Chow**, and C. H. Yeh, "Bidirectional >67 Gbit/s OFDM-WDM-PON architecture without Rayleigh backscattering noise effect," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0373.

[66] Y. C. Yang, Y. W. Chen, T. A. Hsu, C. H. Yeh, and **C. W. Chow**, "Polarization-multiplexing based VCSEL laser VLC transmission and analysis," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0601.

[67] S. I. Chen, L. Y. Wei, C. H. Yeh, and **C. W. Chow**, "Using 10 GHz optimized electro-absorption modulation laser (EML) for the 40 Gbit/s radio access network (RAN) supporting free-space mobile mid-haul and fiber mobile front-haul transmissions," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0108.

[68] W. H. Gunawan, L. Y. Wei, G. H. Chen, C. H. Yeh, and **C. W. Chow**, "Error vector magnitude analysis of 4, 8, and 16 color shift keying (CSK) format for visible light communication," *Optics & Photonics Taiwan International Conference (OPTIC)* 2019 Paper 0049.

2018

[69] Y. Y. Tong, Q. L. Zhang, X. R. Wu, **C. W. Chow**, C. Shu, and H. K. Tsang, "Compact and high-speed Ge Franz-Keldysh I/Q modulator used with Kramers-Kronig receiver," IEEE Photonics Conference (IPC), Sept. 2018.

[70] Y. Hsu, Y. C. Chang, C. H. Yeh, **C. W. Chow**, J. H. Chen, "Based on silicon-micro-ring-resonator and triple-ring cavity for stable and tunable erbium fiber laser," 2018 Progress in Electromagnetics Research Symposium (PIERS-Toyama), 1399-1404, August, 2018

[71] Y. Hsu, C. Y. Chuang, L. Y. Wei, **C. W. Chow**, X. Wu, H. K. Tsang, J. Chen, C. H. Yeh, "512-Gbit/s PAM-4 signals direct-detection using silicon photonics receiver with Volterra equalization," CLEO 2018, JTu2A. 39, May 2018

[72] Y. Hsu, X. Wu, C. Y. Chuang, **C. W. Chow**, H. K. Tsang, J. Chen, C. H. Yeh, "192-Gbit/s PAM-4 optical interconnect using mode-division multiplexing," CLEO 2018, JTu2A. 58, May 2018

[73] C. W. Hsu, S. Liu, F. Lu, **C. W. Chow**, C. H. Yeh, and G. K. Chang "Accurate indoor visible light positioning system utilizing machine learning technique with height tolerance," *Optical Fiber Communication Conference & Exposition (OFC),* March, 2018, LA, USA, Paper M2K.2. March 2018

[74] L. Y. Wei, C. W. Hsu, Y. Hsu, **C. W. Chow**, and C. H. Yeh, "20 Gbit/s tricolor R/G/B laser diode based bi-directional signal remodulation visible light communication system," *Optical Fiber Communication Conference & Exposition (OFC),* March, 2018, LA, USA, Paper M3K.2, March 2018

[75] C. W. Peng, Y. C. Chang, M. W. Cheng, Y. Hsu, L. Y. Wei, **C. W. Chow**, C. H. Yeh, " Silicon-on-insulator (SOI) based polarization-exchanger using asymmetric directional coupler," *Optics & Photonics Taiwan International Conference (OPTIC)* 2018, P1-34.

[76] M. W. Cheng, C. W. Peng, G. H. Chen, **C. W. Chow**, and C. H. Yeh, " 4 x 4 silicon photonics based mode-division multiplexer and de-multiplexer," *Optics & Photonics Taiwan International Conference (OPTIC)* 2018, paper 0078. Dec 2018

[77] Z. Q. Li, Y. C. Chuang, **C. W. Chow**, and C. H. Yeh, "Visible light communication using light-panel and moving CMOS image sensor," Optics & Photonics Taiwan, International Conference (OPTIC) 2018, paper 0104, Dec 2018

[78] Y. C. Chuang, Z. Q. Li, **C. W. Chow**, and C. H. Yeh, "Indoor visible light positioning and illumination," Optics & Photonics Taiwan, International Conference (OPTIC) 2018, paper 0175, Dec 2018

[79] Y. J. Chang, C. M. Luo, Y. R. Xie, **C. W. Chow**, and C. H. Yeh, "Stable and selectable dual-wavelength erbium-based compound-ring laser with single-longitudinal-mode," Optics & Photonics Taiwan, International Conference (OPTIC) 2018, paper 0174, Dec 2018

2017

[80] **C. W. Chow***, "Physically secure communications using visible light communications," *Asia Communications and Photonics Conference (ACP)*, Invited JORCEP Workshop, Nov., 2017, Guangzhou, China.

[81] Y. Hsu, C. Y. Chuang, G. H. Chen, Y. C. Chang, X. Wu, L. Y. Wei, **C. W. Chow***, J. Chen, C. H. Yeh, and H. K. Tsang, "Transmission performance improvement of PAM-4 signal direct-detected by Ge-Si photodiode using Volterra equalization," *Asia Communications and Photonics Conference (ACP)*, Nov., 2017, Guangzhou, China, S4B.5.

[82] C. W. Hsu, Y. Hsu, G. H. Chen, L. Y. Wei, **C. W. Chow***, I. C. Lu, Y. L. Liu, and C. H. Yeh, "Mitigation of LED nonlinearity using adaptive equalization for visible light communications," *Asia Communications and Photonics Conference (ACP)*, Nov., 2017, Guangzhou, China, Su2A.52.

[83] L. Y. Wei, C. W. Hsu, Y. Hsu, C. H. Yeh, and **C. W. Chow***, "Bi-directional Visible Light Communication Using a Single 682-nm Visible Vertical-Cavity Surface-Emitting Laser (VCSEL) and Signal Remodulation," *European Conference on Optical Communication (ECOC)*, Gothenburg, Sweden, 2017, Sept. Paper 3768556.

[84] Y. Hsu, T. C. Tzu, T. C. Lin, C. Y. Chuang, X. Wu, J. Chen, C. H. Yeh, H. K. Tsang, **C. W. Chow**, "64-Gbit/s PAM-4 20-km transmission using silicon micro-ring modulator for optical access networks," *Optical Fiber Communication Conference & Exposition (OFC),* March, 2017, LA, USA, Paper M3H.2.

[85] L. Y. Wei, C. W. Hsu, G. H. Chen, C. H. Yeh, C. K. Chan, and **C. W. Chow,** "White light phosphor-based blue laser diode illumination and communication using bit-loading OFDM," OECC/Photonics@SG, July 2017, Singapore P2-123.

[86] H. Y. Cheng, Y. Hsu, T. J. Huang, Z. Q. Yang, C. H. Yeh, and **C. W. Chow**, "Stable and tunable single-mode erbium fiber laser by utilizing silicon-based micro ring resonator and multi-ring scheme," OSA Laser Congress,

Advanced Solid State Lasers, Oct 2017, JTh2A.19, Japan.

[87] Y. F. Liu, G. H. Chen, **C. W. Chow***, and C. H. Yeh, "Using root raised cosine filtering and time domain equalizer to enhance the data rate and performance of low-speed optical transceiver," International Research Conference on Engineering and Technology (IRCET), June 2017, Paper IRCET-0002, Kitakyushu, Japan

[88] J. Y. Sung, **C. W. Chow**, and C. H. Yeh, "Deploying mobile fronthaul network using OFDM over passive optical network (PON) optical distribution network (ODN)," 24th Congress of the International Commission for Optics (ICO-24), August, 2017, Tokyo, Japan, P18-04.

[89] C. H. Yeh, **C. W. Chow**, J. Y. Chen, H. Z. Chen, and J. H. Chen, "Adaptive dual-wavelength-switchable erbium fiber multiple-ring laser with single frequency output," 24th Congress of the International Commission for Optics (ICO-24), August, 2017, Tokyo, Japan, P17-03.

[90] I. C. Lo, C. H. Yeh, **C. W. Chow**, P. H. Chiang, H. Y. Huang, "0.75-3.05 Gbps OOK VCSEL-based visible light wireless communication system," 24th Congress of the International Commission for Optics (ICO-24), August, 2017, Tokyo, Japan, P18-08.

[91] K. Liang, **C. W. Chow**, C. H. Yeh, X. L. Liao, K. H. Lin, W. L. Wu, and Y. Y. Chen, "Visible light communication (VLC) using smart-phone with different light-source offsets," 24th Congress of the International Commission for Optics (ICO-24), August, 2017, Tokyo, Japan, P18-03.

[92] R. J. Shiu, Y. C. Liu, H. Y. Wang, **C. W. Chow**, C. H. Yeh, "120 m long distance camera based visible light communication," Optics & Photonics Taiwan, International Conference (OPTIC) 2017, paper 0171.

[93] Y. C. Chang, Y. Hsu, C. H. Yeh, **C. W. Chow**, H. Y. Cheng, "Utilizing silicon-photonic micro-ring-resonator and multiple-ring cavity for stable and switchable erbium fiber laser with single-longitudinal-mode," Optics & Photonics Taiwan, International Conference (OPTIC) 2017, paper 0175.

[94] G. H. Chen, Y. Hsu, C. Y. Chuang, Y. C. Chang, **C. W. Chow**, J. Cheng, C. H. Yeh, X. Wu, H. K. Tsang, "Silicon photonics receiver for 400 Gbit/s ethernet," Optics & Photonics Taiwan, International Conference (OPTIC) 2017, paper 0173.

[95] Y. C. Liu, R. J. Shiu, W. C. Wang, C. W. Chen, **C. W. Chow**, and C. H. Yeh, "Extinction ratio enhancement and adaptive thresholding scheme to demodulate CMOS image sensor based visible light communication," Optics & Photonics Taiwan, International Conference (OPTIC) 2017, paper 0227.

[96] M. J. Jiang, J. T. Wu, **C. W. Chow**, and C. H. Yeh, "Simple post-equalizer for solar cell based visible light communication," Optics & Photonics Taiwan, International Conference (OPTIC) 2017, paper 0229.

2016

[97] C. H. Yeh, J. H. Chen, and **C. W. Chow**, "Centralized WDM-OFDM PON system with Rayleigh backscattering noise circumvention," IEEE IPC, USA, Oct. 2016, Paper WD3.3

[98] C. H. Yeh, H. Y. Chen, Y. L. Liu, and **C. W. Chow**, "Dynamic bandwidth allocation for multi-band OFDM wireless VLC system," IEEE IPC, USA, Oct. 2016, Paper WP23

[99] C. W. Hsu, **C. W. Chow**, Y. I. Lu, Y. L. Liu, and C. H. Yeh, "Demonstration of high speed imaging 3×3 MIMO-OFDM visible light communication System," IEEE IPC, USA, Oct. 2016, Paper WP27.

[100] Y. Hsu, J. J. Liu, X. Wu, H. Y. Wu, C. H. Yeh, H. K. Tsang, J. Chen, and **C. W. Chow**, "Direct detection OFDM PON using Ge-on-Si photodetector employing Volterra filtering for nonlinear compensation," in Proc. ECOC Germany, Sept. 2016, Th.2.P2.

[101] K. Xu, C. Y. Wong, L. Zhang, L. Liu, N. Liu, **C. W. Chow**, and H. K. Tsang, "56 Gbit/s DMT signal generated by an integrated silicon ring modulator," in CLEO 2016, USA, paper STu1G.7.

[102] Y. Hsu, X. R. Wu, L. Y. Wei, K. Xu, C. W. Hsu, J. Y. Sung, C. H. Yeh, H. K. Tsang, and **C. W. Chow**, "Integrated SOI-based receiver module for TWDM-PON," in OECC 2016, paper WA1-4.

[103] C. W. Hsu, K. Liang, H. Y. Chen, L. Y. Wei, C. H. Yeh, Y. Liu, **C. W. Chow**, "Visible light encryption system using camera image sensor," in OECC 2016, paper WA2-21

[104] Y. H. Zhung, N. Tsia, J. Y. Chen, H. Z. Chen, **C. W. Chow**, J. H. Chen, and C. H. Yeh, "Tunable and stable dual-wavelength erbium fiber laser with single-longitudinal-mode utilizing novel multi-ring architecture," 34th Symposium on Spectroscopic Technologies and Surface Sciences, Paper OP-05 , 2016-07. Nantou, July Taiwan.

[105] N. Tsai, Y. H. Chuang, C. H. Yeh, **C. W. Chow**, and J. H. Chen, "Using simple FBG-based sensor system together with fault-detection for strain and temperature sensing," IEEE International Conference on Applied System Innovation (ICASI) , Paper E-0102 , 2016 May Okinawa, Japan.

[106] Y. H. Chuang, N. Tsai, C. H. Yeh, **C. W. Chow**, and J. H. Chen, "Utilizing FBG-based sensor with power and WDM detection for increasing sensor capacity," IEEE International Conference on Applied System Innovation (ICASI) , Paper E-0103, 2016 May Okinawa, Japan.

[107] J. T. Wu, H. Y. Wang, C. W. Hsu, C. W. Chow, C. H. Yeh, "Positioning and lighting system using visible light communications," OPTIC 2016 Dec.

[108] W. C. Wang, K. Liang, C. Y. Chen, C. W. Chow, and C. H. Yeh, "Thresholding schemes for visible light communication using mobile-phone image sensor," OPTIC 2016 Dec

[109] H. Y. Wang, J. T. Wu, C. W. Hsu, C. W. Chow, C. H. Yeh, "Pre-distortion PAM-4 to enhance performance in solar-cell receiver based visible light communication," OPTIC 2016 Dec

[110] C. C. Su, C. W. Chow, and C. H. Yeh, "IR synchronization for optical camera communications," OPTIC 2016 Dec

2015

[111] **C. W. Chow***, "LED-based Visible Light Communications (VLC) (Invited)," *Bilateral Photonics Workshop of the National Science Foundation (NSF) and Ministry of Science and Technology (MOST),* May, 2015

[112] **C. W. Chow***, "Visible Light Communications using White-Light LED (Invited)," *LED Solid State Lighting Conference,* May, 2015.

[113] **C. W. Chow***, C. H. Yeh, and Y. Liu, "Optical wireless communications using visible LED (Invited)," IEEE TENCON, Nov. 2015, Paper 185.

[114] H. Y. Chen, K. Liang, C. Y. Chen, S. H. Chen, **C. W. Chow**, "Passive optical receiver for visible light communication (VLC)," IEEE TENCON, Nov. 2015, Paper 396.

[115] C. H. Yeh, H. Z. Chen, J. Y. Chen, **C. W. Chow**, "Utilizing new erbium-doped fiber laser scheme for long-distance fiber Bragg grating (FBG) sensor system," IEEE Sensors, Nov. 2015, South Korea, Paper 4-103.

[116] P. F. Liu, J. Y. Sung, **C. W. Chow**, C. H. Yeh, Gary Chou, and C. L. Pan, "Low bending loss square-core optical fiber for optical communication," *SPIE Optics + Optoelectronics,* Prague, Czech Republic, April 2015, 9507-6

[117] L. G. Yang, C. W. Chow, C. H. Yeh, and H. K. Tsang, "Wavelength-tunable Erbium-doped fiber laser using silicon-on-insulator (SOI) based micro-ring with narrow laser linewidth," *SPIE Optics + Optoelectronics,* Prague, Czech Republic, April 2015, 9513-32

[118] C. H. Yeh, H. Z. Chen, J. Y. Chen, **C. W. Chow**, and J. H. Chen, "Using FBG for stable and tunable erbium-doped fiber ring laser in single-mode," 33th Symposium on Spectroscopic Technologies and Surface Sciences," SP-10 , 2015-07. Hualien, Taiwan

[119] Y. F. Wu, C. H. Yeh, **C. W. Chow**, J. Y. Sung, J. H. Chen, and Y. L. Liu, "Utilizing inter-injection Fabry-Perot laser scheme for stable wavelength-tuning," PSROC 2015 Annual Meeting , Paper P1-OE-076 , 2015-01. Hsinchu, Taiwan.

[120] H. Z. Chen, J. Y. Chen, C. H. Yeh, and **C. W. Chow**, "Using FBG for stabilized and wavelength-tunable EDF laser in single-longitudinal-mode," OPTIC 2015 Dec. Paper 2015-FRI-P0201-P016

[121] J. Y. Chen, H. Z. Chen, C. H. Yeh, **C. W. Chow**, J. H. Chen, and W. F. Liu, "Employing erbium-doped fiber laser architecture for FBG-based remote temperature sensing," OPTIC 2015 Dec. Paper 2015-SAT-P0202-P001

[122] Y. C. Chen, C. W. Hsu, **C. W. Chow** and C. H. Yeh, "DWDM transceivers for 120-km long-reach TWDM-PON," OPTIC 2015 Dec. Paper 2015-SAT-P0202-P014

[123] K. Liang, H. Y. Chen, C. Y. Chen, C. W. Hsu, S. H. Chen, C. H. Yeh, and **C. W. Chow**, "Smartphone-based visible light communication," OPTIC 2015 Dec. Paper 2015-SAT-P0202-P019.

2014

[124] **C. W. Chow**, et al, "Direct-detection all-optical OFDM superchannel for long-reach PON (Invited)," *13th International Conference on Optical Communications and Networks (ICOCN)*, 2014, M33.2 (Nov, 2014)

[125] S. H. Chen and **C. W. Chow**, "Color-filter-free WDM MIMO RGB-LED visible light communication system using mobile-phone camera," *13th International Conference on Optical Communications and Networks (ICOCN)*, 2014, M32.5

[126] S. H. Chen and **C. W. Chow**, "Hierarchical scheme for detection of rotating MIMO visible light communication systems using mobile-phone camera," *13th International Conference on Optical Communications and Networks (ICOCN)*, 2014, M32.6

[127] J. Y. Sung, **C. W. Chow**, C. H. Yeh, K. Xu, and H. K. Tsang "Scalable OFDM TWDM-PON using silicon-based photonic devices and wavelength tunable upstream transmitter," *OptoElectronics and Communications Conference (OECC)*, Australia, WE8A, July 2014

[128] J. Y. Sung, **C. W. Chow**, and C. H. Yeh, "Simultaneous Color Control and Visible Light Communication Using Dimming-discrete-multi-tone (DMT)," *OptoElectronics and Communications Conference (OECC)*, 2014, 207 – 209, Australia

[129] **C. W. Chow***, C. H. Yeh, C. W. Hsu, P. Y. Huang, and Y. F. Liu, "LED-based visible light communication integratable to main power line network with optical background noises mitigation," *International Conference on Electrical and Electronic Engineering (EEE2014)*, Hong Kong, Paper 032, April 2014

[130] C. H. Yeh, **C. W. Chow**, H. Y. Chen, J. Chen, Y. L. Liu, and Y. F. Wu, "High-speed phosphor-LED wireless

communication system utilizing no blue filter," *SPIE Optics + Photonics*, Aug. 2014, Paper: 9193-44, San Diego, USA

[131] J. Y. Sung, W. F. Lin, Y. F. Wu, **C. W. Chow**, and C. H. Yeh, "Design of visible light communication system for maintaining uniform data rate," *SPIE Optics + Photonics*, Paper: 9193-38, San Diego, USA

[132] Y. F. Wu, J. Y. Sung, C. H. Yeh, and **C. W. Chow**, "Utilizing self-seeding RSOA with Faraday rotator mirror for colorless access network," *SPIE Optics + Photonics*, Paper: 9202-26, San Diego, USA

[133] **C. W. Chow**, et al, "White-light LED-based visible light communication (Invited)," *Optics & Photonics Taiwan, the International Conference (OPTIC)*, 2014 (Dec, 2014), 2014-FRI-S0204-I001

[134] C. W Hsu, J. Y. Sung, **C. W. Chow**, and C. H. Yeh, "125-Gbit/s high spectral efficient all-optical OFDM system," *Optics & Photonics Taiwan, the International Conference (OPTIC)*, 2014 (Dec, 2014), 2014-FRI-S0211-O001

[135] S. H Chen, C. Y. Chen, and **C. W. Chow**, "Single-input multiple-output (SIMO) in-door LED visible light wireless communications supporting quality of service using mobile-phone camera and photodetector," *Optics & Photonics Taiwan, the International Conference (OPTIC)*, 2014 (Dec, 2014), 2014-FRI-S0205-O003

[136] Y. Hsu, Y. C. Chu, F. Lin, K. H. Chen, **C. W. Chow**, J. H. Chen, "Design of holographic optical shuttle," *Optics & Photonics Taiwan, the International Conference (OPTIC)*, 2014 (Dec, 2014), 2014-Thu-S0401-O001

[137] S. H. Chen and **C. W. Chow**, "Color shift keying (CSK) code division multiple access (CDMA) transmission for RGB LED visible light communications using mobile-phone camera," *Optics & Photonics Taiwan, the International Conference (OPTIC)*, 2014 (Dec, 2014), 2014-FRI-S0204-O003

[138] S. H. Chen and **C. W. Chow**, "Differential signaling spread-spectrum modulation of the in-door LED visible light wireless communications using mobile-phone camera," *Optics & Photonics Taiwan, the International Conference (OPTIC)*, 2014 (Dec, 2014), 2014-FRI-S0203-O001

2013

[139] **C. W. Chow***, J. Y. Sung, C. W. Hsu, and C. H. Yeh, "Enabling technologies and signal processing for NG-PON2 and future WDM-PON (Invited)," *International Conference on Information, Communications and Signal Processing (ICICS)*, Dec., 2013, Paper: P0410

[140] Y. F. Liu, C. H. Yeh, and **C. W. Chow**, "AC-LED based visible light communication systems using multiple transmitter design for reducing latency," *Asia Communications and Photonics Conference (ACP)*, Nov., 2013, Beijing, China, Paper AF2F.63

[141] J. Y. Sung, C. W. Hsu, C. H. Yeh, and **C. W. Chow,** "Optical wired and wireless integrated access network using MASK-MQAM-OFDM coding," *Asia Communications and Photonics Conference (ACP)*, Nov., 2013, Beijing, China, Paper AF2F.75

[142] K. Xu, J. Y. Sung, L. G. Yang, Y. Chen, Z. Cheng, **C. W. Chow**, C. H. Yeh, and H. K. Tsang, "Experimental demonstration of multi-level modulation on OFDM signals using integrated silicon modulators," *Optical Fiber Communication Conference & Exposition (OFC),* March, 2013, LA, USA, Paper OW1G.5

[143] L. G. Yang, S. S. Jyu, C. H. Yeh, **C. W. Chow**, and Y. C. Lai, "Self-starting S-band mode-locked fiber ring laser by polarization additive pulse mode-locking," *Conference on Lasers and Electro-Optics (CLEO)*, June, 2013, San Jose, CA, USA, Paper JTu4A.05

[144] S. S. Jyu, L. G. Yang, C. H. Yeh, **C. W. Chow**, H. K. Tsang, and Y. C. Lai, "Multi-bound pulse state in a 250 GHz mode-locked fiber laser based on a silicon micro-ring resonator," *Conference on Lasers and Electro-Optics (CLEO)*, June, 2013, San Jose, CA, USA, Paper CM1I.3

[145] **C. W. Chow**, C. H. Yeh, "Technology advances for the 2nd Stage Next-Generation Passive-Optical-Network (NG-PON2)," *6th IEEE/International Conference on Advanced Infocomm Technology (IEEE/ICAIT)*, July, 2013, Invited, Taiwan

[146] J. Y. Sung, K. Xu, **C. W. Chow**, C. H. Yeh, and H. K. Tsang, "Cost-effective all-silicon remote antenna unit (RAU) for radio-over-fiber," *Asia-Pacific Radio Science Conference (APRASC'13)*, Sept., 2013, Paper ID: 290555, Taiwan

[147] L. G. Yang, C. Y. Lin, S. S. Jyu, J. Y. Sung, J. W. Lin, C. H. Yeh, Y. Lai, J. W. Shi, C. L. Pan and **C. W. Chow**, "Coding to enhance transmission stability of W-band radio-over-fiber system," *Asia-Pacific Radio Science Conference (APRASC'13)*, Sept., 2013, Paper ID: 290422, Taiwan

[148] Y. F. Liu, C. N. Lin, C. H. Yeh, **C. W. Chow**, and Y. L. Liu, "Using interference technique for communication security in VLC system," *Asia-Pacific Radio Science Conference (APRASC'13)*, Sept., 2013, Paper ID: 290478, Taiwan

[149] C. H. Yeh, **C. W. Chow**, Y. F. Wu, J. Y. Sung, L. G. Yang, and S. S. Lu, "91.5 nm Bandwidth CW Wavelength-Tunable Fiber Ring Laser," *Asia-Pacific Radio Science Conference (APRASC'13)*, Sept., 2013, Paper ID: 290476, Taiwan

[150] **C. W. Chow**, C. H. Yeh, and J. Y. Sung, "Upgrading from TDM-PON to signal-remodulated WDM-PON with

Rayleigh backscattering mitigation," *Conference on Lasers and Electro-Optics Pacific Rim and OptoElectronics and Communications Conference (CLEO-PR 2013 & OECC 2013)*, June, 2013, Kyoto, Japan, Paper No:TuPP-9

[151] Y. F. Liu, **C. W. Chow**, C. H. Yeh, and Y. C. Wang, "Employing NRZI code for reducing background noise in LED visible light communication," *Conference on Lasers and Electro-Optics Pacific Rim and OptoElectronics and Communications Conference (CLEO-PR 2013 & OECC 2013)*, June, 2013, Kyoto, Japan, Paper No:TuPR-10

[152] C. H. Yeh, **C. W. Chow**, S. S. Lu, and J. H. Chen, "L-band multi-wavelength fiber laser utilizing reflective semiconductor optical amplifier with a linear cavity," *Conference on Lasers and Electro-Optics Pacific Rim and OptoElectronics and Communications Conference (CLEO-PR 2013 & OECC 2013)*, June, 2013, Kyoto, Japan, Paper No:WPA-24

[153] C. H. Yeh, H. Y. Chen, **C. W. Chow**, Y. L. Liu, and J. Chen, "Using injection-locked Fabry-Perot laser diode with 10% frond-facet reflectivity for 10 Gbps upstream PON access," *Conference on Lasers and Electro-Optics Pacific Rim and OptoElectronics and Communications Conference (CLEO-PR 2013 & OECC 2013)*, June, 2013, Kyoto, Japan, Paper No:WPA-37

[154] Y. F. Liu, C. H. Yeh, **C. W. Chow**, P. Y. Huang, "Demonstration of using digital FIR filter and matched filter to increase data rate in visible light communication," *SPIE Photonics West*, Feb., 2013, Paper 8645-22

[155] Y. F. Liu, C. H. Yeh, **C. W. Chow**, "QPSK modulation for AC-power-signal-biased visible light communication system," *SPIE Photonics West*, Feb., 2013, Paper 8645-20

[156] W. F. Lin, C. H. Yeh, **C. W. Chow**, "LED-based OFDM visible light communication system using pilot-tone for channel estimation to improve transmission capacity," Optics & Photonics Taiwan, the International Conference (OPTIC), 2013, 2013-SAT-S0205-O001

[157] J. Y. Sung, H. Q. Su, C. W. Hsu, K. Xu, **C. W. Chow**, C. H. Yeh, H. K. Tsang, "Fiber fault monitoring technique using silicon micro-ring for ring-based access," Optics & Photonics Taiwan, the International Conference (OPTIC), 2013, 2013-SAT-S0205-O003

[158] C. N. Lin, Y. F. Liu, C. H. Yeh, **C. W. Chow**, "Designing SNR distribution to enhance security in visible light communication systems," Optics & Photonics Taiwan, the International Conference (OPTIC), 2013, 2013-SAT-S0205-O006

[159] J. Y. Sung, H. Q. Su, **C. W. Chow**, C. H. Yeh, "Comparison among different de-multiplexers for all-optical OFDM systems," Optics & Photonics Taiwan, the International Conference (OPTIC), 2013, 2013-SAT-P0202-P013

2012

[160] Y. F. Liu, C. H. Yeh, **C. W. Chow**, Y. Liu, "Adaptive control of OFDM data rate for LED visible light communications in different free space transmission distances and offsets," *Asia Communications and Photonics Conference (ACP)*, Nov., 2012, Guangzhou, China, Paper AF4A.30

[161] **C. W. Chow**, C. H. Yeh, Y. Lin, Y. Liu, "Signal generation and transmission of 13-Gb/s OFDM signal using RSOA in carrier distribution WDM-PON," *Asia Communications and Photonics Conference (ACP)*, Guangzhou, China, Nov., 2012, Paper AF4A.46

[162] **C. W. Chow** and C. H. Yeh, "Advances in Access Networks – from Long-reach (LR) to Short-reach (SR), and from TDM/WDM to OFDM," Invited talk, Proc. of *Wireless and Optical Communication Conference (WOCC)*, pp. 22-24, Kaohsiung, Taiwan (April, 2012)

[163] Y. F. Liu, C. W. Lai, **C. W. Chow**, C. H. Yeh, "AC-power-signal-biased LED modulation method for ubiquitous visible light communication," Proc. of *Wireless and Optical Communication Conference (WOCC)*, pp. 27-29, Kaohsiung, Taiwan (April, 2012)

[164] Y. F. Liu, **C. W. Chow**, C. H. Yeh, "Time division duplex for preventing reflection interference in visible light communication," Proc. of *Wireless and Optical Communication Conference (WOCC)*, pp. 175-177, Kaohsiung, Taiwan (April, 2012)

[165] **C. W Chow**, C. H. Yeh, C. B. Huang, J. W Shi, and C. L. Pan, "Optical Carrier Distributed Network with 0.1 THz Short-reach Wireless Communication System," *Optical Fiber Communication Conference & Exposition (OFC),* LA, USA, Paper OTu2H.2, March, 2012

[166] C. H. Yeh, **C. W. Chow** and H. Y. Chen, "Employing M-QAM OFDM downlink and remodulated OOK uplink for colorless WDM-PON system with mitigation Rayleigh backscattering effect," *Optical Fiber Communication Conference & Exposition (OFC),* LA, USA, Paper JTh2A.68, 2012

[167] C. H. Yeh, **C. W. Chow**, H. Y. Chen, Y. F. Wu, "10-Gbps OFDM upstream rate by using RSOA-ONU with seeding-light for 75 km long-reach PON access," *Optical Fiber Communication Conference & Exposition (OFC),* LA, USA, Paper JTh2A.65, 2012

[168] C. H. Yeh, **C. W. Chow**, and H. Y. Chen, "Adaptive 6.25-40 Gb/s downstream rate using four- band OFDM channels within 10 GHz bandwidth for long-reach PON," *Optical Fiber Communication Conference & Exposition*

(OFC), LA, USA, Paper JTh2A.51, 2012

[169] **C. W. Chow**, C. H. Yeh, S. Lo, H. Tsang, "Distortion mitigation using mm-wave generated by silicon microring modulator in LR-ROF," *10th International Conference on Optical Internet (COIN)*, Japan, May 2012, Paper: TuP.11

[170] **C. W. Chow**, C. H. Yeh, Y. H. Lin, "Method to improve the spectral efficiency of heterogeneous optical wired and wireless long-reach access network," *10th International Conference on Optical Internet (COIN)*, Japan, May 2012, Paper: TuK.1

[171] Y. C. Wang, Y. F. Liu, C. H. Yeh, and **C. W. Chow**, "Reducing noise interference in visible light communication by using NRZI code," Optics & Photonics Taiwan, International Conference (OPTIC), Taiwan, Dec 2012, Paper OB-SA-BL1-(3)-3

2011

[172] **C. W. Chow** and C. H. Yeh, "Recent advances in hybrid access networks: From long-reach (LR) to short-reach (SR) systems," Invited talk, *International Conference on Optical Communications and Networks (ICOCN)* 2011, pp. 1-2, Guangzhou, China (Dec. 2011)

[173] C. –L. Pan, **C. W. Chow**, C. H. Yeh, C. B. Huang, J. W. Shi, "Recent advances in millimeter-wave photonic wireless links for very high data rate communication," Invited talk, *Asia Communications and Optics Conference 2011 (ACP 2011)*, China (Nov, 2011)

[174] Y. F. Liu, C. H. Yeh, **C. W. Chow**, Y. Liu, "Optimized OFDM modulation format for white-light LED optical wireless communication with pre-equalization," *International Conference on Information Photonics & Optical Communications (IPOC)*, Singapore, Oct. 2011, pp. 1-3

[175] C. H. Yeh, **C. W. Chow**, Y. F. Wu, F. Y. Shih, Y. F. Liu, Y. H. Lin and J. Y. Sung, C. L. Pan, "Employing SBS-assisted filter and FWM effect to achieve quadruple-wavelength output," *International Conference on Information Photonics & Optical Communications (IPOC)*, Singapore, Oct. 2011, pp. 1-3

[176] **C. W. Chow**, and C. H. Yeh, "Long reach access and integrated home networks," *OptoElectronics and Communications Conference (OECC)*, Invited talk, Paper 6A2-1, Taiwan July, 2011

[177] L. G. Yang, **C. W. Chow**, C. H. Yeh, C. L. Pan, G. Chou, and R. Chiang, "Lare-core optical fiber for Light-Peak applications," *OptoElectronics and Communications Conference (OECC)*, Paper 7P3-47, Taiwan

[178] C. H. Yeh, **C. W. Chow**, S. S. Lu, and J. Y. Sung, "Rayleigh backscattering mitigation for radio over fiber-passive optical network system," *OptoElectronics and Communications Conference (OECC)*, Paper 7P3-88, Taiwan

[179] C. H. Yeh, **C. W. Chow**, Y. H. Lin, and P. Y. Huang, "Self-protection architecture in C+L bands WDM-PON system," *OptoElectronics and Communications Conference (OECC)*, Paper 7P3-87, Taiwan

[180] C. H. Wang, L. G. Yang, **C. W. Chow**, C. H. Yeh, Sien Chi, "Comparison of Two CS-SSB Modulators Used in Bidirectional Carrier Distributed Long-Reach Passive Optical Network," *Optical Fiber Communication Conference & Exposition (OFC),* JWA077, LA, USA, 2011

[181] Y. F. Liu, Y. C. Chang, **C. W. Chow**, C. H. Yeh, "Equalization and Pre-distorted Schemes for Increasing Data Rate in In-door Visible Light Communication System," *Optical Fiber Communication Conference & Exposition (OFC),* JWA083, LA, USA, 2011

[182] C. H. Yeh, **C. W. Chow**, L. G. Yang and C. L. Pan, "Adjustment of uplink data rate in RSOA-based ONU in PON access," OSA Advanced Photonics Congress / Access Networks and In-House Communications (ANIC), Toronto, Canada, June 2011, Paper 1060784.

[183] C. H. Yeh, **C. W. Chow**, L. G. Yang, Y. L. Liu and C. L. Pan, "40 Gbps long-reach access network with multi-video services broadcasting," OSA Advanced Photonics Congress / Access Networks and In-House Communications (ANIC), Toronto, Canada, June 2011, Paper 1060809.

[184] **C. W. Chow**, C. H. Yeh, Y. F. Wu, F. Y. Shih and S. Chi, "Ring-based WDM-PON with suppression of Rayleigh backscattering interferometric noise," OSA Advanced Photonics Congress / Access Networks and In-House Communications (ANIC), Toronto, Canada, June 2011, Paper 1060809

[185] S. S. Lu, Y. F. Wu, C. H. Yeh, and **C. W. Chow**, "Stable and wavelength-tunable SOA-based fiber laser with Sagnac ring configuration," *International Photonics Conference (IPC) 2011*, C-FR-III3-3, Taiwan, Dec. 2011

[186] P. Y. Huang, Y. F. Liu, **C. W. Chow**, C. H. Yeh, "Digital FIR filter design for improving the LED modulation in visible light communication," *International Photonics Conference (IPC) 2011*,G-TH-II2-5, Taiwan

[187] Y. H. Lin, **C. W. Chow**, C. H. Yeh, C. Lin, "Power consumption of next generation 40Gb/s capacity passive optical networks," *International Photonics Conference (IPC) 2011*, B-FR-II4-3, Taiwan

[188] Y. H. Lin, J. Y. Song, **C. W. Chow** and C. H. Yeh, "The long reach and high split-ratio PONs – a green network," *International Photonics Conference (IPC) 2011*, B-FR-II5-4, Taiwan

2010

[189] **C. W. Chow**, et al "Long-reach WDM PONs," Invited Talk WA1, *IEEE Photonics Society Annual Meeting (former LEOS Annual Meeting)*, Denver, CO, USA (Nov 10, 2010)

[190] **C. W. Chow**, Y. F. Liu, Y. C. Chang, and C. H. Yeh, "In-home Visiable Light Communication Systems for Broadband Internet Applications using LED Lighting System," *2nd International Conference on Information and Multimedia Technology (ICIMT 2010),* Hong Kong, (Dec, 2010)

[191] C. L. Pan, J. W. Shi, R. Huang, **C. W. Chow**, "Recent Advances in Photonic Impulse-Radio Wireless communication Link at 100 GHz," Invited Talk, International Photonics and Optoelectronics Meetings (POEM2010), Wuhan, China, (Nov. 3-5, 2010)

[192] **C. W. Chow**, "Long-reach PONs for Next Generation Access Networks," *International High Speed Intelligent Communication 2010 (HSIC 2010)*, Singapore (May 13-14, 2010)

[193] **C. W. Chow**, L. Xu, F. Y. Shih, Y. F. Wu, C. H. Yeh, H. K. Tsang, S. Chi, "Using Wavelength Splitting at the Remote Node to Mitigate Rayleigh Backscattering for Optical Wired and Wireless Access Networks," OWQ4, *Optical Fiber Communication Conference & Exposition (OFC),* San Diego, USA, March 2010

[194] **C. W. Chow**, F. M. Kuo, J. W. Shi, C. H. Yeh, Y. F. Wu, C. L. Pan, "100 GHz Ultra-wideband Wireless System for the Fiber to the Antenna Networks," *Optical Fiber Communication Conference & Exposition (OFC),* OThF1, San Diego, USA, March 2010

[195] **C. W. Chow**, C. H. Yeh, Y. F. Liu, C. H. Wang, C. L. Wu and S. Chi "Carrier Distributed PON Using SSB-CS Signal for Rayleigh Backscattering Suppression," *OptoElectronics and Communications Conference (OECC)*, Paper 7P-08, Sapporo, Japan

[196] L. Xu, C. Li, **C. W. Chow**, X. Chen, C. Y. Wong, Stanley M. G. Lo, H. K. Tsang, "Frequency Quadrupling of Phase Modulated Signals," *OptoElectronics and Communications Conference (OECC)*, Paper 6D2-5, Sapporo, Japan

[197] C. H. Yeh and **C. W. Chow**, Single-frequency wavelength-tunable erbium-doped fiber laser with simple ring scheme," *OSA Advanced Solid-State Photonics (ASSP) Topical Meeting*, San Diego, California, USA, January 2010, AWB12.

[198] F. Y. Shih, Y. F. Wu, C. H. Yeh, and **C. W. Chow**, S. Chi, "An Optical Switch-Based Self-Restored WDM-PON Architecture Against Fiber Faults," pp. 136-137, *Asia Communications and Photonics Conference and Exhibition (ACP 2010)*, Shanghai, China, Dec. 2010

[199] Y. F. Wu, F. Y. Shih, C. H. Yeh, and **C. W. Chow**, S. Chi, "Two-Mode Semiconductor Laser for mm-Wave in 100 km Radio over Fiber Transmission," Paper P10, *Asia Communications and Photonics Conference and Exhibition (ACP 2010)*, Shanghai, China

[200] C. H. Wang, L. K. Yang, **C. W. Chow**, C. H. Yeh, S. Chi, "Using single sideband-carrier suppressed modulation generated by a dual-paralleled MZM to mitigate Rayleigh backscattering for carrier distributed PON," OPT2-O-041, *Optics and Photonics Taiwan (OPT'10)*, Taiwan

[201] Y. F. Liu, Y. C. Chang, **C. W. Chow** and C. H. Yeh, "Equalization with pre-distorted scheme for increasing data rate in visible light communication," OPT2-O-046, *Optics and Photonics Taiwan (OPT'10)*, Taiwan

[202] Y. F. Wu, F. Y. Shih, C. H. Yeh, **C. W. Chow** and S. Chi, "Self-healing ring-based time division multiplexed passive access networks using optical switches," OPT2-P-84 *Optics and Photonics Taiwan (OPT'10)*, Taiwan

[203] F. Y. Shih, Y. F. Wu, C. H. Yeh, **C. W. Chow** and S. Chi, "Using optical switches for tree-based self-healing time division multiplexed passive optical networks," OPT2-P-083, *Optics and Photonics Taiwan (OPT'10)*, Taiwan

2009

[204] **C. W. Chow**, C. H. Wang, F. Y. Shih, C. H. Yeh, and S. Chi, "Demonstration of Signal Remodulation Long Reach Carrier Distributed Passive Optical Network using OFDM-QAM Signal," We 8.5.2. *35rd European Conference on Optical Communication (ECOC)*, Vienna, Austria, Sept. 2009

[205] C. H. Wang, **C. W. Chow**, C. H. Yeh, Y. F. Wu, F. Y. Shih, and S. Chi, "Demonstration of Hybrid 10Gb/s PON and 10Gb/s OFDM ROF Architecture Towards Next Generation Access Networks," WL53, *Asia Communications and Photonics Conference and Exhibition (ACP 2009)*, Shanghai, China

[206] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu and S. Chi, "Bidirectional Single-Ring-Architecture Self-Protected TDM Passive Optical Network," WL56, *Asia Communications and Photonics Conference and Exhibition (ACP 2009)*, Shanghai, China

[207] C. H. Yeh, **C. W. Chow**, Y. F. Wu, F. Y. Shih, C. H. Wang, and S. Chi, "Multiwavelength Erbium-Doped Fiber Ring Laser Employing Fabry-Perot Etalon," WL13, *Asia Communications and Photonics Conference and Exhibition (ACP 2009)*, Shanghai, China

[208] C. H. Wang, **C. W. Chow**, C. H. Yeh, F. Y. Shih, and S. Chi, "Analysis of Rayleigh noise performance of CS-SSB signal in carrier distributed passive optical network," BO113, *Optics and Photonics Taiwan (OPT'09)*, National Taiwan Normal University, Taiwan

[209] Y. F. Wu, **C. W. Chow**, C. H. Yeh, C. H. Wang, F. Y. Shih, and S. Chi, "Hybrid Heterogenous Access Network using Signal Remodulated with Wireless Signal Broadcast," BO126, *Optics and Photonics Taiwan (OPT'09)*, National Taiwan Normal University, Taiwan

[210] F. Y. Shih, C. H. Yeh, **C. W. Chow**, C. H. Wang, Y. F. Wu, and S. Chi, "An Optical Switch-Based Self-Protected WDM-PON Architecture against Fiber Faults," BO226, *Optics and Photonics Taiwan (OPT'09)*, National Taiwan Normal University, Taiwan

[211] C. L. Wu, C. H. Wang, **C. W. Chow**, C. H. Yeh, and S. Chi, "Studies of DSB and SSB subcarrier Multiplexing for 100Gb/s OFDM Signal," BO 225, *Optics and Photonics Taiwan (OPT'09)*, National Taiwan Normal University, Taiwan

[212] Y. C. Chang, C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu, and S. Chi, "Self-injection Locked Fabry-Perot lasers for 10 Gbps TDM-PON," BO227, *Optics and Photonics Taiwan (OPT'09)*, National Taiwan Normal University, Taiwan

[213] C. H. Yeh, **C. W. Chow**, and Y. L. Liu, "Self-Restored Ring-Star-Architecture TDM-PON," TUP11_11 *CLEO Pacific Rim 2009*, Shanghai, China, Aug. 2009

[214] C. H. Wang, **C. W. Chow**, C. H. Yeh, F. Y. Shih, Y. F. Wu and S. Chi, "Using SSB-NRZ Signal to Improve Effect of Rayleigh Backscattering in Carrier Distributed Long-Reach Passive Optical Network," Paper: 10015, *Intelligent Buildings and Smart Homes Conference (IBASH 2009)*, Taiwan

[215] L. Xu, C. Y. Wong, C. Li, **C. W. Chow**, and H. K. Tsang, "Multi-channel mm-wave generation by frequency quadrupling using an optical modulator and a cascaded silicon microring filter," *CLEO/Europe-EQEC*, CI. P. 3 (123), Munich, Germany, June, 2009

[216] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu and S. Chi, "Fabry-Perot Laser Based Wavelength Converter without External Injection," *OptoElectronics and Communications Conference (OECC)*, Paper 286, Hong Kong, 2009

[217] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu and S. Chi, "Using External-Injected RSOA for Wavelength-Tunable Laser in Long Reach WDM-PON," *OptoElectronics and Communications Conference (OECC)*, Paper 287, Hong Kong, 2009

[218] C. H. Yeh and **C. W. Chow**, "10-Gb/s Upstream TDM-PON Based on Four WDM Signals with OFDM-QAM Remodulation," *OptoElectronics and Communications Conference (OECC)*, Paper 288, Hong Kong, 2009

[219] C. H. Yeh, **C. W. Chow**, F. Y. Shih, C. H. Wang, Y. F. Wu, Y. L. Liu, D. Z. Hsu, Allan Lin, Denial Mai, and S. Chi, "Performance and Limitation of Radio-over-Fiber Network Using Standard WiMAX Signal," *The sixth IEEE and IFIP International Conference on Wireless and Optical Communications Networks (WOCN)*, Cairo, Egypt, April, 2009

[220] **C. W. Chow**, C. H. Yeh, C. H. Wang, F. Y. Shih, and S. Chi, "Rayleigh Backscattering Performance of Carrier Distributed Passive Optical Networks using of OFDM-QAM Signal," *Optical Fiber Communication Conference & Exposition (OFC)*, OMV4, San Diego, USA, 2009

[221] **C. W. Chow**, L. Xu, C. H. Yeh, C. H. Wang, F. Y. Shih, H. K. Tsang, C. L. Pan, and S. Chi, "Bidirectional ROF Transmission and Signal Remodulation Using Separate Optical Clock Distribution to Mitigate Signal Distortions," *Optical Fiber Communication Conference & Exposition (OFC)*, OWP3, San Diego, USA, 2009

[222] C. H. Wang, F. Y. Shih, C. H. Yeh, **C. W. Chow**, and S. Chi, "10 Gb/s Uplink Traffic Transmitter Using External Optical Injection for TDM Passive Optical Networks," *Optical Fiber Communication Conference & Exposition (OFC)*, OWH5, San Diego, USA, 2009

[223] C. H. Wang, F. Y. Shih, **C. W. Chow**, C. H. Yeh, and S. Chi, "Using Downstream DPSK Signal for Upstream OOK Signal Remodulation with RSOA in Hybrid WDM-TDM Passive Optical Networks," *Optical Fiber Communication Conference & Exposition (OFC)*, JWA73, San Diego, USA, 2009

2008

[224] **C. W. Chow**, C. H. Yeh, C. H. Wang, F. Y. Shih, Y. M. Lin, and S. Chi, "Demonstration of High Spectral Efficient OFDM-QAM Long Reach Passive Optical Network," *34rd European Conference on Optical Communication (ECOC)*, We.1.F.5, Brussels, Belgium, 2008

[225] **C. W. Chow**, Y. Liu, C. H. Yeh and S. Chi, "Signal Remodulation PON without Power Sacrifice using PolSK," *34rd European Conference on Optical Communication (ECOC)*, Th.2.F.5, Brussels, Belgium, 2008

[226] **C. W. Chow**, C. H. Yeh, Y. T. Li, C. H. Wang, F. Y. Shih, Y. M. Lin, C. L. Pan and S. Chi, "Demonstration of High Spectral Efficient Long Reach Passive Optical Networks using OFDM-QAM," *Conference on Lasers and Electro-Optics (CLEO)*, **Postdeadline Paper**, CPDB7, San Jose, USA, 2008

[227] C. H. Wang, C. H. Yeh, F. Y. Shih, **C. W. Chow** and S. Chi, "Using Fabry-Perot Lasers with Interinjection Technique for Color-Free WDM-PON Applications," *OptoElectronics and Communications Conference (OECC/ACOFT)*, Sydney, Australia, 2008, ThM-5

[228] **C. W. Chow**, C. H. Wang, C. H. Yeh, and S. Chi, "Performance Analysis of Spectrally Broadened Rayleigh Noise Mitigation Scheme for DWDM-PONs," *OptoElectronics and Communications Conference (OECC/ACOFT)*, Sydney, Australia, 2008, Paper 89

[229] C. H. Wang, **C. W. Chow**, C. H. Yeh and S. Chi, "Characterization of Dark-Return-to-Zero Modulation Format at Different Transmitter and Receiver Bandwidths," *OptoElectronics and Communications Conference (OECC/ACOFT)*, Sydney, Australia, 2008, Paper 88

[230] C. H. Yeh, **C. W. Chow**, C. H. Wang, F. Y. Shih, Y. F. Wu and S. Chi, "Using simply self-injection technology for low cost upstream signal in 10 Gbps TDM-PON," *IEEE PhotonicsGlobal@Singapore 2008, Dec. 2008*

[231] C. H. Wang, F. Y. Shih, **C. W. Chow**, C. H. Yeh, C. L. Pan and S. Chi, "High efficient WDM using OFDM-QAM in long reach passive optical networks," *International Conference on Optics and Photonics in Taiwan (OPT'08)*

[232] F. Y. Shih, C. H. Wang, C. H. Yeh, **C. W. Chow**, and S. Chi, "Using RSOA-based ONUs for self-protected colorless WDM-PON," *International Conference on Optics and Photonics in Taiwan (OPT'08)*

[233] M. H. Yang, Y. T. Li, **C. W. Chow**, and C. L. Pan, "Acousto-optic modulated THz communication link detected with free space electro-optic sampling," *Annual Meeting of The Physical Society of Republic of China*, 2008, PE-16

[234] C. H. Wang, **C. W. Chow**, C. H. Yeh, F. Y. Shih, S. Chi, "Widely Wavelength Tunable Fiber Laser Based on Self-Injected Fabry-Perot Laser Diode for WDM Applications," *6th International Conference on Optics-photonics Design & Fabrication (ODF) June,* 2008 10PS-086

[235] C. H. Wang, C. H. Yeh, F. Y. Shih, **C. W. Chow**, K. C. Hsu, Y. Lai and S. Chi, "Self-Protection Multi-Ring-Architecture Fiber Sensing System," *International Conference on Multifunctional Materials and Structures (MFMS)*, Hong Kong, 2008, MF307

[236] **C. W. Chow**, Y. Liu, and C. H. Kwok, "Signal Remodulation with High Extinction Ratio 10-Gb/s DPSK Signal for DWDM-PONs," *33rd Optical Fiber Communication Conference & Exposition (OFC),* OThT2, San Diego, USA, 2008

2007

[237] **C. W. Chow**, Y. C. Cai, and C. H. Wang, "Performance analysis of phase modulation induced spectral reshaped signal in DWDM-PONs," *5th Workshop on Fibres and Optical Passive Components (WFOPC)*, F1B-4, Mar. 2007

[238] Y. C. Cai, and **C. W. Chow**, "Rayleigh noise mitigation using return-to-zero modulation format in 10-Gb/s DWDM-PONS," *Optics and Photonics Taiwan (OPT)*, BO-026, 2007

[239] C. H. Wang, **C. W. Chow**, C. H. Yeh, and S. Chi, "Characterization of dark-return-to-zero modulation format at different transmitter and receiver bandwidths and driving voltages," *Optics and Photonics Taiwan (OPT)*, BP-069, 2007

[240] E. K. MacHale, G. Talli, **C. W. Chow**, and P. D. Townsend, "Reduction of Signal-Induced Rayleigh Noise in a 10Gb/s WDM-PON using a Gain-Saturated SOA," *33rd European Conference on Optical Communication (ECOC)*, We7.6.3, Berlin, Germany, 2007

[241] **C. W. Chow**, G. Talli, A. D. Ellis and P. D. Townsend "CSS-AMPSK for Rayleigh Noise Mitigation in PONs," *Conference on Lasers and Electro-Optics (CLEO)*, **Postdeadline Paper**, CPDB10, Baltimore, USA, 2007

[242] Y. Liu, **C. W. Chow**, H. K. Tsang and S. P. Wong, "Enhancement of Self Phase Modulation Induced Spectral Broadening in Silicon Waveguides by Ion Implantation," *Conference on Lasers and Electro-Optics (CLEO)*, CThQ2, Baltimore, USA, 2007

[243] E. K. MacHale, G. Talli, **C. W. Chow**, and P. D. Townsend, "Rayleigh noise suppression in PONs using gain-saturated SOAs," *Photonics Ireland 2007,* Galway, Ireland June 2007

[244] P. D. Townsend, G. Talli, **C. W. Chow**, E. M. MacHale, C. Antony, R. Davey, T. De Ridder, X. Z. Qiu, P. Ossieur, H. G. Krimmel, D. W. Smith, I. Lealman, A. Poustie, S. Randel, H. Rohde, "Long Reach Passive Optical Networks," *20th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting,* **Invited Paper**, Florida, USA, Oct. 2007

[245] G. Talli, **C. W. Chow**, P. D. Townsend, R. Davey, T. de Ridder, X.-Z. Qiu, P. Ossieur, H.-G. Krimmel, D. Smith, I. Lealman, A. Poustie, S. Randel, H. Rohdel, H. Rohde, "Integrated Metro and Access Network: PIEMAN," **Invited Paper** *12th European Conference on Networks & Optical Communications (NOC)*, Stockholm, Sweden, June 2007

[246] E. K. MacHale, G. Talli, **C. W. Chow**, and P. D. Townsend, "Analysis of Rayleigh Noise Mitigation Schemes in the PIEMAN Long Reach PON," *12th European Conference on Networks & Optical Communications (NOC)*, Stockholm, Sweden, 2007

[247] **C. W. Chow**, A. D. Ellis, "Asynchronous Digital Optical Regenerator by an EAM-Loop for 4 x 40Gb/s WDM to 160Gb/s OTDM Conversion," *32nd Optical Fiber Communication Conference & Exposition (OFC),* JThA54, Anaheim, USA, 2007

[248] G. Talli, **C. W. Chow**, P. D. Townsend, "Filter Impact in Spectrally-Broadened Rayleigh Noise Reduction

Schemes for DWDM-PONs,**"** *32nd Optical Fiber Communication Conference & Exposition (OFC),* OWD4, Anaheim, USA, 2007

[249] Y. Liu, **C. W. Chow**, C. H. Kwok, H. K. Tsang, and Chinlon Lin, "Optical Burst and Transient Equalizer for 10Gb/s Amplified WDM-PON,**"** *32nd Optical Fiber Communication Conference & Exposition (OFC),* OThU7, Anaheim, USA, 2007

[250] **C. W. Chow**, A. D. Ellis, "Regenerative properties of Asynchronous Digital Optical Regenerator using a single EAM," *Conference on Lasers and Electro-Optics-Europe (CLEO/Europe),* CI2-4, Munich, Germany, June 2007

2006

[251] R. Davey, T. De Ridder, X.-Z. Qiu, P. Ossieur, H.-G. Krimmel, D. Smith, I. Lealman, A. Poustie, G. Talli, **C. W. Chow**, P. Townsend, S. Randel, H. Rohde, "Progress in IST project PIEMAN towards a 10 Gbit/s, multiwavelength long reach PON," *Broadband Europe*, **Post-deadline, Th3A.3**, Switzerland, Dec. 2006

[252] **C. W. Chow** and A. D. Ellis, "Serial OTDM for 100 Gb/s Ethernet Applications," *Conference on Lasers and Electro-Optics (CLEO)*, **Postdeadline Paper**, CPDB6, Long Beach, USA, 2006

[253] **C. W. Chow**, C. H. Kwok, Y. Liu, H. K. Tsang, and Chinlon Lin, "3-Bit/Symbol Optical Modulation-Demodulation Simultaneously Using DRZ, DPSK and PolSK," *Conference on Lasers and Electro-Optics (CLEO)*, CFH2, Long Beach, USA, 2006

[254] **C. W. Chow**, C. H. Kwok, Y. Liu, H. K. Tsang, and Chinlon Lin, "High Extinction-Ratio Orthogonal Label Switching of DRZ/DPSK Generated by Photonic Crystal Fiber," *Conference on Lasers and Electro-Optics (CLEO)*, CMNN6, Long Beach, USA, 2006

[255] **C. W. Chow**, G. Talli, and P. D. Townsend, "Reduction of Rayleigh Noise in 10Gb/s DWDM-PONs by Wavelength Detuning and Phase Modulation Induced Spectral Broadening," *32nd European Conference on Optical Communication (ECOC)*, We4.5.5, Cannes, France, 2006

[256] G. Talli, **C. W. Chow**, E. K. MacHale and P. D. Townsend, "High Split Ratio 116km Reach Hybrid DWDM-TDM 10Gb/s PON Employing R-ONUs," *32nd European Conference on Optical Communication (ECOC)*, Mo4.5.2, Cannes, France, 2006

[257] C. H. Kwok, **C. W. Chow**, H. K. Tsang, Chinlon Lin, and A. Bjarklev, "Simultaneous Four Channels Modulation Format Conversion in a Nonlinear Optical Loop Mirror with Suppressed Four-Wave-Mixing Crosstalk," *32nd European Conference on Optical Communication (ECOC)*, We3.P.11, Cannes, France, 2006

[258] P. D. Townsend, G. Talli, **C. W. Chow**, and E. MacHale, "10 Gbps hybrid WDM-TDM long reach PONs," *11th European Conference on Networks & Optical Communications (NOC)*, **Invited Paper,** Berlin, Germany, July 2006

[259] Y. Liu, C. H. Kwok, **C. W. Chow**, P. S. Chan, H. K. Tsang, and Chinlon Lin, "Multiple-wavelength Dynamic Gain Transient Compensation Based on Silicon Platform," *19th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting*, WU 3, Montreal, QC, Canada, Oct. 2006

[260] Y. Liu, **C. W. Chow**, and H. K. Tsang, "Silicon Waveguides Based Ultra-Wide-band Filter for Raman Amplification," *19th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting*, WU 2, Montreal, QC, Canada, 2006

[261] Y. Liu, **C. W. Chow**, and H. K. Tsang, "Silicon-on-Insulator Waveguide Wavelength Combiner," *IEEE International Symposium on Biophotonics, Nanophotonics and Metamaterials,* nano-36, Hang Zhou, China, Oct. 2006

[262] Y. Liu, C. H. Kwok, **C. W. Chow**, P. S. Chan, H. K. Tsang, and Chinlon Lin, "High Speed Gain Transient Compensation," *11th OptoElectronics and Communications Conference (OECC)*, 6B1-4, Kaohsiung, Taiwan, 2006

[263] C. H. Kwok, **C. W. Chow**, H. K. Tsang, Chinlon Lin, and A. Bjarklev, "S/C/L-Band Wavelength Conversion by Cross-Polarization Modulation in a Dispersion-Flattened Nonlinear Photonic-Crystal Fiber," *31st Optical Fiber Communication Conference & Exposition (OFC),* OThA4, Anaheim, USA, 2006

[264] Y. Liu, **C. W. Chow**, W. Y. Cheung and H. K. Tsang, "Helium Implanted Silicon Waveguide Photodetectors for Optical Power Monitors," *31th Optical Fiber Communication Conference & Exposition (OFC),* OWI78, Anaheim, USA, 2006

[265] C. H. Kwok, **C. W. Chow**, H. K. Tsang, and Chinlon Lin, "All-Optical ASK Header and DPSK Payload Separator," *31st Optical Fiber Communication Conference & Exposition (OFC),* OWI83, Anaheim, USA, 2006

[266] Y. Liu, C. H. Kwok, **C. W. Chow**, H. K. Tsang, Chinlon Lin, "Dynamic gain slope and transient compensation with electronic variable optical attenuator," *7th IEEE(HK) LEOS Postgraduate Conference*, Hong Kong, 2006

2005

[267] **C. W. Chow** and H. K. Tsang, "Two-node demonstration of optical labeling using half-bit delayed dark RZ payload and DPSK label," *18th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting*, TuO 2, Sydney,

Australia, Oct. 2005

[268] Y. Liu, **C. W. Chow**, W. Y. Cheung and H. K. Tsang, "Enhanced infrared responsivity of Helium implanted SOI waveguides," *18th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting*, WR 5, Sydney, Australia, 2005

[269] **C. W. Chow** and H. K. Tsang, "Optical packet labeling using polarization shift keying (PolSK) label and amplitude shift keying (ASK) payload," *30th Optical Fiber Communication Conference & Exposition (OFC),* OME73, Anaheim, USA, 2005

[270] Y. Liu, **C. W. Chow**, W. Y. Cheung and H. K. Tsang, "Enhanced Infrared Responsivity of Helium Implanted SOI Waveguides," *Workshop on Frontiers in Nanophotonics*, paper 8, Hong Kong, Oct. 2005

[271] C. H. Kwok, **C. W. Chow**, H. K. Tsang and Chinlon Lin, "Study of Free Carrier Absorption in Silicon-on-Insulator Nano-Wire Waveguide," *Workshop on Frontiers in Nanophotonics*, paper 11, Hong Kong, 2005

[272] C. H. Kwok, **C. W. Chow**, H. K. Tsang and Chinlon Lin, "Wavelength Conversion in Micro-Structured Fiber," *Workshop on Frontiers in Nanophotonics*, paper 12, Hong Kong, 2005

[273] **C. W. Chow** and H. K. Tsang, "Birefringent fiber loop to improve directly modulated laser diode pulses," *6th Conference on Lasers and Electro-Optics Pacific Rim (CLEO-PR)*, CWAB3-P24, Tokyo, Japan, 2005

[274] Y. Liu, T. K. Liang, **C. W. Chow**, and H. K. Tsang, "Silicon-on-insulator waveguide Mach-Zehnder wavelength combiner," *6th Conference on Lasers and Electro-Optics Pacific Rim (CLEO-PR)*, CWK1-2, Tokyo, Japan, 2005

[275] S. M. Wan, **C. W. Chow**, H. K. Tsang, Yi-Shin Su, and Ching-Fuh Lin, "Broadband wavelength conversion in semiconductor optical amplifier with non-identical multiple quantum wells," *6th Conference on Lasers and Electro-Optics Pacific Rim (CLEO-PR)*, CThC3-P18, Tokyo, Japan, 2005

[276] **C. W. Chow** and H. K. Tsang, "Detection of optical DPSK by birefringent fiber loop," *10th OptoElectronics and Communications Conference (OECC)*, 7B3-6, Seoul, Korea, 2005

[277] **C. W. Chow** and H. K. Tsang, "Optical packet labeling using three-level orthogonal labeling," *10th OptoElectronics and Communications Conference (OECC)*, 6A3-7, Seoul, Korea, 2005

[278] S. M. Wan, **C. W. Chow,** and H. K. Tsang, "Optical Generation of Radio-Waves for Wireless Networks Using a Birefringent Loop Mirror Filter," *10th OptoElectronics and Communications Conference (OECC)*, 7P-034, Seoul, Korea, 2005

[279] Y. Liu, **C. W. Chow**, W. Y. Cheung, and H. K. Tsang, "In-line optical power monitors based on Helium ion implanted Silicon waveguide photodetectors," *6th IEEE(HK) LEOS Postgraduate Conference*, Hong Kong, 2005

2004

[280] **C. W. Chow,** C. S. Wong, and H. K. Tsang, "Optical ASK/DPSK label encoding based on injection locking of Fabry-Perot laser diode," *29th Optical Fiber Communication Conference & Exposition (OFC)*, MF83, Los Angeles, USA, 2004

[281] M. Li, H. K. Tsang, C. Shu, **C. W. Chow**, et al. "Photolithography of 3D topology in Si optical bench for self-aligned placement of laser dies," *54th Electronic Components &Technology Conference (ECTC)*, pp. 1925-1928, Las Vegas, Nevada, USA, June 2004

[282] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "Modulation format conversion using an injection-locked laser diode and birefringent fiber," *9th OptoElectronics and Communications Conference (OECC)*, 13P-58, Yokohama, Japan, 2004

[283] **C. W. Chow,** C. S. Wong, and H. K. Tsang, "All-optical polarization shift keying packet demodulator and demultiplexer utilizing Fabry-Perot laser diode," *9th OptoElectronics and Communications Conference (OECC)*, 13P-97, Yokohama, Japan, 2004

[284] S. M. Wan, **C. W. Chow**, and H. K. Tsang, "Optical generation of microwave signal for wireless networks using a birefringent loop mirror filter," *5th IEEE(HK) LEOS Postgraduate Conference*, Hong Kong, 2004

2003

[285] **C. W. Chow,** C. S. Wong, and H. K. Tsang, "RZ to NRZ data format and wavelength conversion using an injection locked laser diode," *16th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting*, WA4, pp. 475-476, Tucson, USA, 2003

[286] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "8x10 Gb/s multi-wavelength injection locking of a FP laser diode for WDM multicast," *16th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting*, WY3, pp. 682-683, Tucson, USA, 2003

[287] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "Pulse generation by mode-beating in a dual-wavelength injection-locked laser," *8th OptoElectronics and Communications Conference (OECC)*, P3-25, pp. 509-510, Shanghai, China, 2003

[288] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "All-optical wavelength conversion with amplitude equalization and pulse shaping," *8th OptoElectronics and Communications Conference (OECC),* P3-16, pp. 491-492, Shanghai,

China, 2003

[289] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "All optical modulation format and wavelength conversion using an injection-locked laser," *4th IEEE(HK) AP/MTT/LEOS Postgraduate Conference*, pp. 62-64, Hong Kong, 2003

2002

[290] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "All-optical format and wavelength conversion using polarization switching in a FP laser diode," *15th IEEE Lasers & Electro-Optics Society (LEOS) Annual Meeting*, ThA4, pp. 629-630, Glasgow, Scotland, 2002

[291] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "All-optical wavelength conversion with NRZ-RZ format conversion," *28th European Conference on Optical Communication (ECOC)*, P2.6, Copenhagen, Denmark, 2002

[292] **C. W. Chow**, C. S. Wong, and H. K. Tsang, "Time-window gating with jitter reduction using FP laser diode," *3rd IEEE(HK) AP/MTT/LEOS Postgraduate Conference*, 55-56, Hong Kong, 2002

[293] **C. W. Chow**, C. S. Wong, P. S. Chan, and H. K. Tsang, "Conditions for negative power penalty from dual wavelength injection locking," *7th OptoElectronics and Communications Conference (OECC)*, 10P-76, pp. 338, Yokohama, Japan, 2002