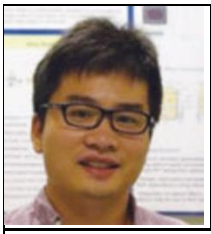

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Education

- PhD (Electrical & Electronic Engineering) The Chinese University of Hong Kong 2014
- BEng (Photoelectric System) Huazhong University of Science and Technology 2010

Biography

Dr. Xu received the B.E. degree in Photoelectric System from Huazhong University of Science and Technology, China, in 2010; and the Ph.D. degree in Electronic Engineering from The Chinese University of Hong Kong, China, in 2014. He then remained as a postdoctoral associate in the same university. Since 2015, Dr. Xu has been an Associate Professor in the School of Electronics and Information Engineering at Harbin institute of technology Shenzhen Graduate School.

Dr. Xu has worked on a wide range of research topics within the silicon photonics ranging from the design of photonic integrated circuits, optical communication and optical interconnection, and computer-aided micro/nano photonic devices.

Research Interests

- Nonlinear optics
- Silicon photonic devices
- Computer-aided design of micro/nano photonic devices
- Short distance optical communication and optical interconnection
- Mid infrared photonics technology

Selected Publications

- K. Xu, Y. Xie, H. Xie, Y. Liu, Y. Yao, J. Du, Z. He, and Q. Song, "High-speed traveling-wave modulator based on graphene and microfiber," J. Lightwave Technology, in press, 2018.
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- Yingjie Liu, Wenzhao Sun, Hucheng Xie, Nan Zhang, Ke Xu, Yong Yao, Shumin Xiao, and Qinghai Song, “Adiabatic and Ultra-Compact Waveguide Tapers based on Digital Metamaterials,” J. Selected Topics in Quantum Electronics, 25(3), 1-6, 2019.
- G Chen, J Du, L Sun, L Zheng, K Xu, HK Tsang, X Chen, GT Reed, Z He, "Machine Learning Adaptive Receiver for PAM-4 Modulated Optical Interconnection Based on Silicon Microring Modulator," J. Lightwave Technology, 36(18), 4106-4113, 2018.
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- J Du, L Zheng, K Xu, G Chen, L Ma, Y Liu, Z He, “High speed and small footprint silicon micro-ring modulator assembly for space-division-multiplexed 100-Gbps optical interconnection,” Optics Express, 26 (11), 13721-13729, 2018.
- S Liu, W Sun, Y Wang, X Yu, K Xu, Y Huang, S Xiao, Q Song, “End-fire injection of light into high-Q silicon microdisks,” Optica, 5 (5), 612-616, 2018.
- J Li, Y Liu, Y Meng, K Xu, J Du, F Wang, Z He, Q Song, “2-um Wavelength Grating Coupler, Bent Waveguide, and Tunable Microring on Silicon Photonic MPW,” IEEE Photon. Technol. Lett., 30 (5), 471-474, 2017.
- G. Chen, J. Du, L. Sun, W. Zhang, K. Xu, X. Chen, G. T. Reed, and Z. He, "Nonlinear distortion mitigation by machine learning of SVM classification for PAM-4 and PAM-8 modulated optical interconnection," J. Lightwave Technology, 36 (3), 650-657, 2017.

- X. Wu, C. Huang, K. Xu, W. Zhou, C. Shu, and H. K. Tsang, "3×104 Gb/s Single-λ Interconnect of Mode-Division Multiplexed Network with a Multicore Fiber," J. Lightw. Technol., 36 (2), 318-324, 2017.
- X. Wu, K. Xu, W. Zhou, C. W. Chow, and H. K. Tsang, "Scalable Ultra-wideband Pulse Generation based on Silicon Photonic Integrated Circuits," IEEE Photon. Technol. Lett., 29 (21), 1896-1899, 2017.
- J. Li, K. Xu, J. Du, "Ultrabroadband and Flattened Dispersion in Aluminum Nitride Slot Waveguides," IEEE Photonics Journal, 9 (4), 2017.
- X. Wu, C. Huang, K. Xu, C. Shu, and H. K. Tsang, "Mode-Division Multiplexing for Silicon Photonic Network-on-Chip," J.Lightw. Technol., 35 (15), 2017.
- K. Xu, Q. Wu, Y. Xie, M. Tang, S. Fu, and D. Liu, "High speed single-wavelength modulation and transmission at 2 μm under bandwidth-constrained condition," Opt. Express, 25(4), 4528-4534, 2017.
- K Xu, L Liu, X Wen, W Sun, N Zhang, N Yi, S Sun, S Xiao, Q Song, "Integrated photonic power divider with arbitrary power ratios," Opt. Lett., 42(4), 855-858, 2017.
- J Li, J Du, L Ma, MJ Li, K Xu, Z He, "Second-order few-mode Raman amplifier for mode-division multiplexed optical communication systems," Opt. Express, 25(2), 810-820, 2017.