

Distinguished Guest Professor YANG, JUN

School of Computer Science and Engineering, Faculty of Innovation Engineering
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Academic Qualification

Ph.D. in Mechanical Engineering, University of Alberta, 2004

Master in Solid Mechanics, Beijing Institute of Technology, 2000

Bachelor in Engineering Mechanics, Beijing Institute of Technology, 1998

Teaching Area

Industrial Internet

Intelligent Manufacturing

Internet of Things

Additive Manufacturing

Acoustic Engineering

Micro-Electro-Mechanical System(MEMS)/Nano-Electro-Mechanical System(NEMS)

Printing Electronics

Biotechnologies

Research Area

Industrial Internet

Intelligent Manufacturing

Acoustic Engineering

Micro-Electro-Mechanical System(MEMS)/Nano-Electro-Mechanical System(NEMS)

Printed Electronics

Metamaterials

Biomedical Devices

Working Experience

Adjunct Professor, Macau University of Science and Technology, Oct. 2021 - present

Professor, Shenzhen Institute for Advanced Study, UESTC, 2021 - present

Director, WIN 4.0 (Western's Industry 4.0 Network), University of Western Ontario, Jul. 2017 - present

Adjunct Professor, Mechanical & Materials Engineering, Faculty of Engineering, University of Western

Ontario. 2021 - present

Professor, Mechanical & Materials Engineering, Faculty of Engineering, University of Western

Ontario. Jul. 2016 - 2021

Professor, School of Biomedical Engineering, Faculty of Engineering, University of Western Ontario, Jul. 2016 - 2021

Associate Professor, Mechanical & Materials Engineering, Faculty of Engineering, University of Western

Ontario. Jul. 2011 - Jun. 2016

Associate Professor, School of Biomedical Engineering, Faculty of Engineering, University of Western Ontario, Jul. 2011 - Jun. 2016

Assistant Professor, Mechanical & Materials Engineering, Faculty of Engineering,
University of Western
Ontario. Sep. 2005 - Jun. 2011
Assistant Professor, School of Biomedical Engineering, Faculty of Engineering, University
of Western
Ontario. Sep. 2005 - Jun.2011

Academic Publication (Selected)

Zhandong Huang, Shengdong Zhao, Xiaobing Cai, Yiyuan Zhang, Zheren Cai, Junfeng Xiao, Zheng Li, Meng Su, Qiuquan Guo, Yanlin Song, **Jun Yang**, "Tunable Fluid-type Metasurface for Wide-angle and Multifrequency Water-air Acoustic Transmission", *Research*, Article ID 9757943, 14 pages, 2021.

Yiyuan Zhang, Z.H., Zheren Cai, Yuqing Ye, Zheng Li, Feifei Qin, Junfeng Xiao, Dongxing Zhang, Qiuquan Guo, Yanlin Song, **Jun Yang**, Magnetic-actuated "capillary container" for versatile three-dimensional fluid interfaces manipulation. *Science Advances*, 2021. 7(34): eabi7498

Zhang, N., M. Hu, R. Song, H. Yuan, N. Liu, Q. Guo, and **J. Yang**, Fabrication of Polymer@Metal Core-Shell $\pm 45^\circ$ Polarization Diversity Dipoles by Mussel inspired Surface Chemistry on 3D Printed Objects. *IEEE Transactions on Components, Packaging and Manufacturing Technology*, 2021: p. 1-1.

Xiao, J., D. Zhang, Q. Guo, and **J. Yang**, 3D Co-Printing of 3D Electronics with a Dual Light Source Technology. *Advanced Materials Technologies*, 2021: p. 2100039

Wu, C., M. Hu, X. Yan, G. Shan, J. Liu, and **J. Yang**, Azo-linked covalent triazine-based framework as organic cathodes for ultrastable capacitor-type lithium-ion batteries. *Energy Storage Materials*, 2021. 36: p. 347-354.

Li, Z., Z. Huang, Z. Cai, H. Li, A. Li, Y. Qiao, **J. Yang**, and Y. Song, Vapor-Induced Liquid Collection and Microfluidics on Superlyophilic Substrates. *ACS Applied Materials & Interfaces*, 2021. 13(2): p. 3454-3462.

Bai, Y., D. Zhang, Q. Guo, J. Xiao, M. Zheng, and **J. Yang**, Study of the Enzyme Activity Change due to Inkjet Printing for Biosensor Fabrication. *ACS Biomater Sci Eng*, 2021. 7(2): p. 787-793.

Bai, Y., Q. Guo, J. Xiao, M. Zheng, D. Zhang, and **J. Yang**, An inkjet-printed smartphone-supported electrochemical biosensor system for reagentless point-of-care analyte detection. *Sensors and Actuators B: Chemical*, 2021: p. 130447.

Zhang, D., J. Xiao, Y. Bai, Q. Guo, M. Zheng, M. Liu, C. Moorlag, and **J. Yang**, Introducing Bioinspired Initiator into Resins for In Situ Repairing of 3D-Printed Metallic Structures. *ACS Applied Materials & Interfaces*, 2020. 12(43): p. 49073-49079.

Wu, C., H. Zhang, M. Hu, G. Shan, J. Gao, J. Liu, X. Zhou, and **J. Yang**, In Situ Nitrogen-Doped Covalent Triazine-Based Multiporous Cross-Linking Framework for High-Performance Energy Storage. *Advanced Electronic Materials*, 2020. 6(7): p. 2000253.

Liu, J., D. Chen, P. Wang, G. Song, X. Zhang, Z. Li, Y. Wang, J. Wang, and **J. Yang**, A microfabricated thickness shear mode electroacoustic resonator for the label-free detection of cardiac troponin in serum. *Talanta*, 2020. 215: p. 120890.

Li, T., P. Jia, K.M. Leung, Q. Guo, and **J. Yang**, Self-detached membranes with well-defined pore size, shape and distribution fabricated by underexposure photolithography. *Journal of Vacuum Science & Technology B*, 2020. 38(4): p. 042601

Huang, Z.D., S.D. Zhao, M. Su, Q. Yang, Z. Li, Z.R. Cai, H.Y. Zhao, X.T. Hu, H.H. Zhou, F.Y. Li, **J. Yang**, Y.S. Wang, and Y.L. Song, Bioinspired Patterned Bubbles for Broad and Low-Frequency Acoustic Blocking. *Acs Applied Materials & Interfaces*, 2020. 12(1): p. 1757-1764.

Cai, Z., Z. Huang, Z. Li, M. Su, Z. Zhao, F. Qin, Z. Zhang, **J. Yang**, and Y. Song, Evaporation Induced Spontaneous Micro-Vortexes through Engineering of the Marangoni Flow. *Angew. Chem. Int. Ed.*, 2020.

Cai, X., H. Liu, and **J. Yang**, Natural granular pile as electromagnetic ground cloak. *Applied Physics Letters*, 2020. 117(16): p. 163701.

Cai, X., Z. Huang, and **J. Yang**, Traveling Sound Wave with Transverse Particle Velocity in a Metawaveguide by Using a Phase-Reversible Metasurface. *Physical Review Applied*, 2020. 14(5): p. 054025.

Dongxing Zhang, Junfeng Xiao, Yang Bai, Qiuquan Guo, Mingyue Zheng, Mei Liu, Carolyn Moorlag, **Jun Yang**, "Introducing Bioinspired Initiator into Resins for In-situ Repairing of 3D Printed Metallic Structures", *ACS Appl. Mater. Interfaces*, Vol. 12, 49073–49079, 2020

Ruzhan Qin, Mingjun Hu, Naibai Zhang, Zhongyue Guo, Ze Yan, Jiebo Li, Jinzhang Liu, Guangcun Shan, **Jun Yang**, "Flexible Fabrication of Flexible Electronics: A General Laser Ablation Strategy for Robust Large-Area Copper-Based Electronics", *Adv. Electron. Mater.*, Vol. 5 1900365 (10 pages), 2019.

Naibo Zhang, Ruiliang Song, Mingjun Hu, Guangcun Shan, Chunting Wang, **Jun Yang**, "A Low Loss Design of Band Pass Filter at the Terahertz Band", *IEEE Microwave and Wireless Components Letters*, Vol. 18(7), 573 – 575, 2018

Wei Zhang, Tengyuan Zhang, Qiuquan Guo, Lingmin Shao, Naibo Zhang, Xiangliang Jin, **Jun Yang**, "A 3D High-Efficiency Wireless Power Transfer System for Volume, Unstationary Free-Positioning and Multi-Object Charging", *IET Electric Power Applications*, Vol. 12(5), 658 – 665, 2018.

Tengyuan Zhang, Eaton Asher, and **Jun Yang**, "A New Printed Electronics Approach Eliminating Redundant Fabrication Process of Vertical Interconnect Accesses (VIAs): Building Multi-Layer Circuits in Porous Materials", *Advanced Materials Technologies*, Vol. 3(4), 1700346 (11 pages), 2018.

Xiaobing Cai, Gengkai Hu, Tianjian Lu and **Jun Yang**, "Sound absorption by acoustic microlattice with optimized pore configuration", *J. Acoust. Soc. Am.*, 144 (2), E138-143, 2018

Naibo Zhang, Zhongliang Deng, Chunting Wang, Qiuquan Guo, **Jun Yang**, "A Switchable Band-pass Filter Employing RF MEMS Switches and Open Ring Resonators", *IEEE Transactions on Electron Devices*, Vol.64(8), 3377 - 3383, 2017

Dongxing Zhang, Junfeng Xiao, Yejun Qiu, **Jun Yang** and Qiuquan Guo, "Initiator-integrated 3D Printing of Magnetic Object for Remote Controlling Application", *IEEE Transactions on Magnetics*, Vol. 53, 5500109, 2017

Naibo Zhang, Mingjun Hu, Lingmin Shao, **Jun Yang**, "Localization of Printed Chipless RFID in 3-D Space", *IEEE Microwave and Wireless Components Letters*, Vol. 26, 373-375, 2016

Professional Certification and Awards

Western Engineering Award for Excellence in Research, University of Western Ontario. Jun. 2019

Vanguard Awards, 2016, 2017, 2018, 2019

Techcellence 'Startup Innovation Award', 2017

NSERC-Discovery Accelerator Supplement Award, Natural Sciences and Engineering Research Council of Canada (NSERC), May. 2016 - May. 2019

Xerox UAC Award, Xerox, Jan. 2015 - Dec. 2018

Faculty Scholar Award, The University of Western Ontario, 2012-2014.

Early Researcher Award, 2009.

PetroCanada Young Innovators Award, 2006

Professional Society Membership

Fellow, The Canadian Academy of Engineering, Jun. 2018

Member of the Expert Committee, International Intelligent Manufacturing Alliance