FUTURE NANO-MANUFACTURING FOR THZ MICROSYSTEMS: A CIRCUIT DESIGNER'S PERSPECTIVE

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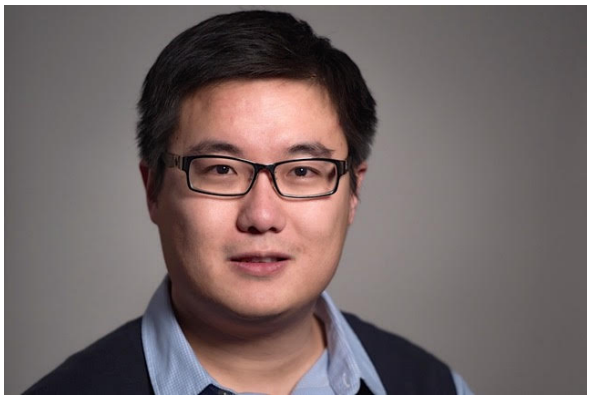

Abstract: This talk discusses the challenges and opportunities of THz semiconductor microsystems. From a circuit designer's perspective, the speaker shows how innovations in nano manufacturing can enable future applications in sensing, imaging, metrology, security and communications

Bio note: Ruonan Han received his B.S. degree from Fudan University in 2007 and Ph.D. degree from Cornell University in 2014. He is now a tenured associate professor at the Department of Electrical Engineering and Computer Science, MIT. His research group focuses on RF-to-photonics integrated systems for spectroscopy, metrology, imaging, quantum sensing/ processing, broadband/secure communication, etc. He is an associate editor of IEEE Trans. Very-Large-Scale Integration System and IEEE Trans. Quantum Engineering, and also serves on the Technical Program Committee of IEEE RFIC Symposium and the Steering Committee of IEEE International Microwave Symposium. He and his students have won three best student paper awards (2012, 2017 and 2021) in the RFIC symposium. He is the IEEE MTT-S Distinguished Microwave Lecturer in 2020-2022, and the winner of the Intel Outstanding Researcher Award in 2019 and the National Science Foundation CAREER Award in 2017.