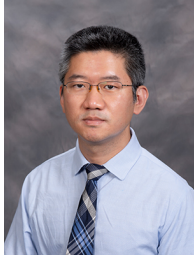


Efficient Plasmonic Circuits for Data Communications



Prof. Heng Pan

Department of Mechanical Engineering
Texas A&M University

Friday, September 24, 10:00 am US central time

Room: Zoom*

<https://uofh.zoom.us/j/845619943?pwd=QlZvYUV6M2dxNDkvNWxBd3F2YzdJZz09>

Meeting ID: 845 619 943

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LECTURE ABSTRACT

In addressing emerging needs in energy, healthcare, communication and defense applications, a wide range of new materials and devices have appeared over the past years. Consequently, new manufacturing requirements in flexibility, complexity, throughput/cost, accuracy, multi-material and multi-functional integration arise which necessitates disruptive innovations in manufacturing. Additive Manufacturing (AM) plays an essential role in this transition. In this presentation, new AM processes for solvent-free (dry) Li-ion battery manufacturing and nanoscale direct metal printing will be discussed. Experimental and numerical studies were performed to understand particles mixing, ultrafast laser excitation of nanoparticles and induced transport. The fundamental understanding has transformed into manufacturing innovation and led to advances in manufacturing equipment and manufacturing science.

SPEAKER BIOSKETCH

Dr. Heng Pan is currently an Associate Professor in the J. Mike Walker '66 Department of Mechanical Engineering at Texas A&M University. Prior to joining Texas A&M, he was an Assistant Professor (2013-2019) and Associate Professor (2019-2020) at Missouri S&T. He received Ph.D from Mechanical Engineering at University of California - Berkeley (2009). Dr. Pan's research interests include additive manufacturing of electronics and energy devices, laser-assisted micro/nanomanufacturing, and manufacturing process modeling. Dr. Pan's honors and awards include 2019 NSF CAREER Award and 2015 ORAU Ralph E. Powe Junior Faculty Enhancement Award.

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