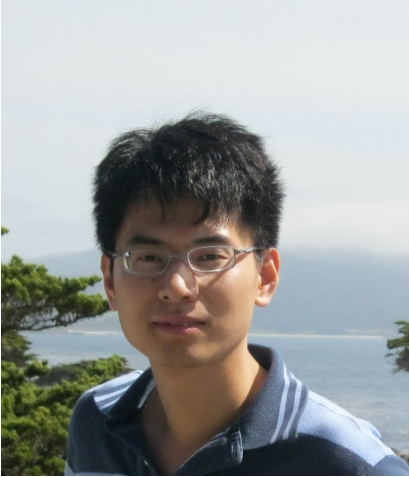


**CIVE 6111 Graduate Seminar**

**Physics Guided Deep Learning for Subsurface Characterization**



**Dr. Jiefu Chen**

Assistant Professor

Department of Electrical and Computer Engineering  
University of Houston

**Friday, February 21, 2020**

2:45pm-3:45pm

Classroom Business Building (CBB) – Room 120

**Abstract**

In this talk, Dr. Jiefu Chen will share his group's recent work on physics guided deep learning for solving inverse problems and its applications in subsurface characterization for oilfield exploration. Examples will include resistivity logging-while-drilling (LWD) data processing for directional drilling and geosteering, electromagnetic telemetry for borehole wireless communication, and seismic full waveform inversion (FWI).

**Bio**

Dr. Jiefu Chen is an Assistant Professor at the Department of Electrical and Computer Engineering, the University of Houston. Previously, he worked for four and a half years as a Staff Scientist for Weatherford. Dr. Chen's research interests include computational electromagnetics, inverse problems, well logging, and machine learning for scientific computing. He holds a BS degree in engineering mechanics and a MS degree in dynamics and control, both from Dalian University of Technology, and a PhD degree in Electrical Engineering from Duke University.