

EEE 598: Nano/Micro Electromechanical Sensors

Course Description:

Nano/Micro Electromechanical System (N/MEMS) stands for a class of batch-fabricated devices, consisting of mechanical, electrical and other components to simulate macroscopic functions on a nano/micro scale. This interdisciplinary technology offers the great potential of reducing the cost, size and power consumption for wide applications, such as consumer electronics, military defense and scientific instruments. In this class, at first fundamental fabrication technology for nano/micro manufacture will be surveyed, then a variety of nano/micro sensors will be explored for different applications. One emphasis will be on the application of Earth and Space exploration.

Prerequisites:

Engineering MENG, MS, MSE, PhD and MCS students, or Science & Engr Of Materials PhD students, or Ph.D students in the Schools of Earth and Space Exploration.