Frontiers of Science and Engineering Lecture Series: Saturday Feb. 16<sup>th</sup> 2013, 10:00AM Castle Air Museum 5050 Santa Fe Dr. Atwater

## The DRONE Age

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Abstract: Drones are unmanned aircraft systems (UAS) with autopilot and autonomous flying capability. FAA (Federal Aviation Administration) has been tasked to open the national air space (NAS) by 2015. When we can file-n-fly, we will be in drone age.

In this talk, Dr. Chen will share with the public on his thoughts on the beneficial use of low-cost drones that matters to San Joaquin Valley's future. He believes UAS-based "personal" "remote sensing" (PRS) era is coming just like in 1950s when the word "personal" was put in front of "computer". Using examples from his research, Dr. Chen will show how drones can be used as both flying sensors and flying actuators for precision agriculture, environment monitoring and natural resource management.

California is the first embracing driverless cars. Will we be the first embracing drones, starting from San Joaquin Valley?

**Biography:** Dr. YangQuan Chen was a faculty member of ECE Dept. of Utah State University before he joined UC Merced in Fall 2012. He earned his Ph.D. from Nanyang Technological University, Singapore in 1998. His current areas of research interests include: distributed measurement and distributed control of distributed parameter systems using mobile actuator and sensor networks, multi-UAV based personal cooperative remote sensing and real time water management and irrigation control.

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Next Talk: March16<sup>th</sup> Topic to be announced