

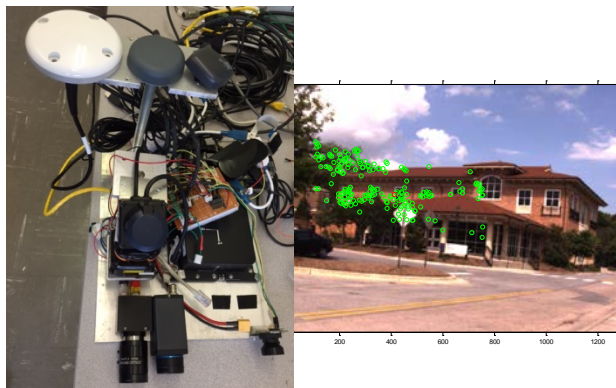


Dr. Zhen Zhu
 Assistant Professor, Electrical Engineering
 Navigation and guidance of UAV: sensor integration, laser and vision-aided navigation, GPS receiver design.
 Biomedical image processing: miniaturized imaging systems.

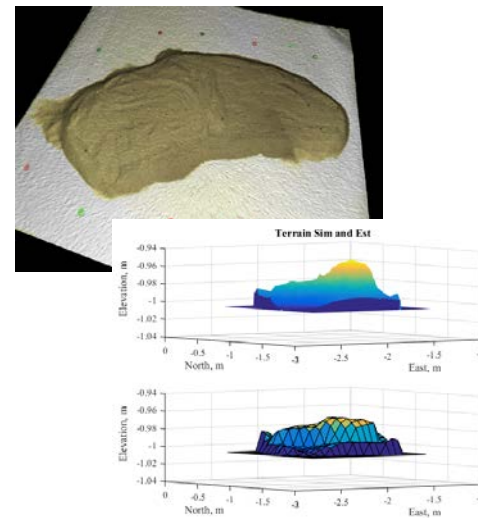
Improve the safety of unmanned operations



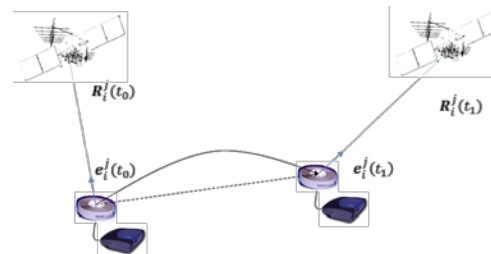
Navigation with cameras and laser scanners



Monitor and model environmental changes with UAV



High-accuracy satellite navigation



UAV and remote sensing

- *Autonomous UAV operations*
- *Navigate in an urban area and indoors without GPS*
- *Collision avoidance*
- *Create 3D models of the environments*
- *Produce a high-accuracy satellite navigation solution for aircraft*

Miniaturized imaging system

- *Real-time image processing and analysis*
- *Hand-held imaging devices*