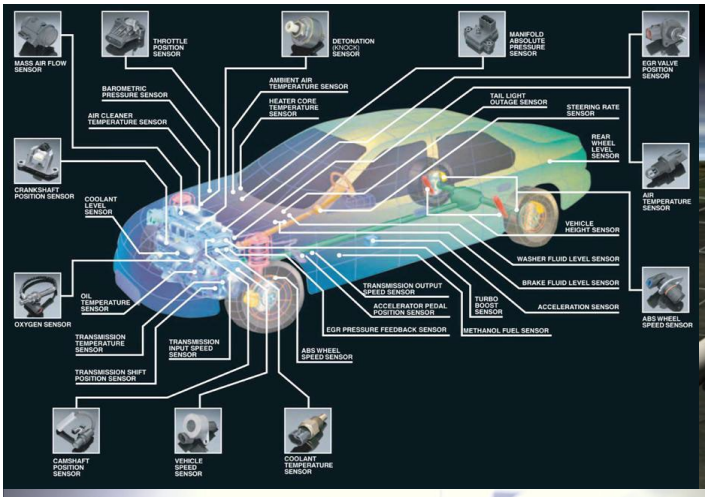
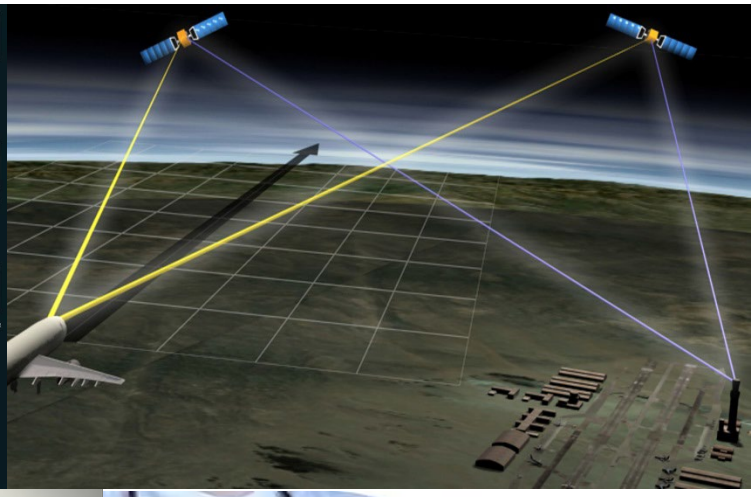
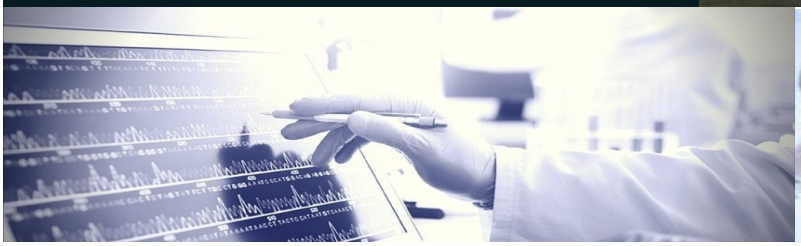
SPRING 2025 MAE GRADUATE COURSE

MAE 298 ESTIMATION THEORY AND APPLICATIONS

4 Credit Lecture Professor Xinfan Lin lxflin@UCDavis.edu







You will learn:

- Why is estimation important? How does it enable state monitoring, diagnostics and feedback control?
- What is Kalman filter? Why, when, and how to use it?
- How to implement Kalman filter to solve real-world problems?
- What are the assumptions and limitations of Kalman filter? When to avoid it?
- How to design nonlinear estimators (e.g. extended/unscented Kalman Filter and particle filter)? When to use them?
- How do we know that we have sufficient data for estimation?

When: Monday Wednesday 12:10-2 PM **Where: TLC 3211**