

Introduction to Estimation and Data Fusion

Lecturer

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Summary

This is a three day course on estimation and data fusion given at new postgraduate students at ACFR and CAS. It is an amalgamation of various parts of the basic courses in estimation (KC1), data fusion (KC2) and decentralised data fusion (KC7).

Syllabus

- Part 1: Probabilistic models, discrete and continuous Bayesian and information fusion methods. Laboratory: Data fusion with Bayes theorem.
- Part 2: The multisensor Kalman filter, non-linear Multisensor methods, multisensor multi-target tracking. Laboratory: Multisensor multi-target tracking.
- Part 3: Distributed and decentralised data fusion methods, multi-person decision theory. Laboratory: Distributed and decentralised data fusion.

Course Materials

Course material consist of a pdf file of slides and a zip file of Matlab code implementing various algorithms discussed in the course.