

- industry cross-fertilisation
- technology transfer
- industry forum
- seminars
- consultancy and case studies
- training

Introduction to Estimation and Kalman Filtering

Agenda (1-day Course)

08.45 *REGISTRATION*

09.00 Introduction to Probability, Stochastic Processes and Signals
(Basic Theorems, Disturbances & Noise Representation)

09.45 Hands-on Session:
[Implementation of Disturbance & Noise in State-Space Model](#)

10.45 *TEA/COFFEE*

11.00 Introduction to Kalman Filter
(Continuous and Discrete Time)

12.00 Discrete Time Kalman Filter
(Derivation, Properties, Riccati Equation and Tuning)

12.45 *LUNCH*

13.30 Hands-on Session:
[Application of Observers & Building the Kalman Filter](#)

14.30 Introduction to Time Varying and Nonlinear Systems

15.00 *TEA/COFFEE*

15.15 Parameter Estimation using Extended Kalman Filters
(Condition Monitoring, Model Based Fault Detection Methods)

16.00 Hands-on Session: Kalman Filtering for Parameter Estimation

17.00 *CLOSE*