

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

Optimisation and System Identification (3-day Course) Agenda

Day 1:

- 9.00 Static optimization methods: Unconstrained optimization
- 9.45 Static optimization methods: Constrained optimization
- 10.45 Tea/Coffee
- 11.00 Hands-on: static optimization methods
- 12.30 Lunch
- 13.30 Dynamic Optimization methods
- 14.30 Hands-On: Dynamic Optimization methods
- 15.30 Tea/Coffee
- 15.45 Genetic and Search algorithms
- 16.30 Hands-On: Genetic/Search algorithms
- 17.00 Close

Day 2:

- 9.00 System Identification for Linear Systems
- 10.45 Tea/Coffee
- 11.00 Hands-on: System ID with Least Squares algorithm
- 11.45 Hands-on: System ID with a Kalman Filter to estimate an offset
- 12.30 Lunch
- 13.15 System Identification Implementation Issues and Model Validation
- 14.30 Hands-on: Estimation of Parameters in Physics-based models
- 15.45 Tea/Coffee
- 16.00 Self-Tuning Control
- 17.00 Close

Day 3:

- 9.00 Grey-Box models – the system structure and essential elements
- 10.00 Parameter estimation for Grey-Box models
- 11.00 Tea/Coffee
- 11.15 Hands-On session on Grey-Box model identification
- 12.30 Lunch
- 13.15 Non-linear system modeling through multiple linear models
- 14.15 Hands-On session on Multiple-Model approach
- 15.15 Tea/Coffee
- 15.30 Neural Networks as universal approximators: static and dynamic models
- 16.30 Hands-On session on Neural-Network model identification procedure
- 17.00 Close