

Course Overview/Schedule

Monday 2010.05.24 19:00 - 22:00

- MSDL
- Course Overview
- Modelling and Simulation to Tackle Complexity
(i.e., causes of complexity
and the need for Multi-Paradigm Modelling)

Tuesday 2010.05.25 09:00 - 12:00

- System Specification, a theoretical basis for M&S
(i.e., time base, state, classification, ...)

Tuesday 2010.05.25 15:00 - 18:00

- Foundations of Modelling Languages
(i.e., abstract/concrete syntax, semantics, ...)

Wednesday 2010.05.26 19:00 - 22:00

- Causal Block Diagrams
(algebraic, discrete-time, continuous-time)

Thursday 2010.05.27 15:00 - 18:00

- Petri Nets
- Petri Net *assignment*: model and analyze traffic (with time)

Thursday 2010.05.27 19:00 - 22:00 Lab

- Statecharts
- Statecharts *assignment*: model and synthesize digital watch

Monday 2010.05.31 19:00 - 22:00

- Petri Nets: analysis, coverability graph
- Petri Nets: Traffic assignment
- Statecharts: theory, extensions
- Discrete-Event World Views

Tuesday 2010.06.01 09:00 – 12:00 (**NOT** in lab)

- DEVS theory

Tuesday 2010.06.01 15:00 - 18:00 Lab

- (python)DEVS *assignment*: traffic

Wednesday 2010.06.02 19:00 - 22:00

- Acausal modelling (Modelica)
- Meta-Modelling, Mega-Modelling

Thursday 2010.06.03 15:00 - 18:00 (**NOT** in lab)

- Model Transformation
- Domain-Specific Modelling

Thursday 2010.06.03 19:00 - 22:00

- Multi-Paradigm Modelling:
Multi-formalism Modelling and the Formalism Transformation Graph
- Questions and Answers