

Program DISC Summer School on Control for Cyber-Physical Systems

Center Parcs, Zandvoort, The Netherlands, June 1-4, 2015

| | | |
|--------------------------------|---------------------------------------|--|
| Monday, June 1, 2015 | | Introduction, Security and Hybrid Systems |
| 09.00 – 10.50 | Registration | |
| 10.50 – 11.00 | Maurice Heemels / Alberto Bemporad | Opening Summer School by organisers |
| 11.00 – 12.45 | Paulo Tabuada / Ricardo Sanfelice | CPS: History, Overview, Applications and Challenges |
| 12.45 – 14.00 | Lunch | |
| 14.00 – 15.45 | Ricardo Sanfelice (1) | Dynamical Models of Cyber-physical Systems |
| 15.45 – 16.15 | Break | |
| 16.15 – 18.00 | Paulo Tabuada (1) | Security in CPS |
| 19.30 | Dinner | |
| Tuesday, June 2, 2015 | | Hybrid and Networked Systems, Formal Methods |
| 08.45 – 10.30 | Ricardo Sanfelice (2) | Control Theoretical Tools for Analysis and Design of CPSs |
| 10.30 – 11.00 | Break | |
| 11.00 – 12.45 | Girish Nair (1) | Nonstochastic Information Theory for Feedback Control |
| 12.45 – 14.00 | Lunch | |
| 14.00 – 15.45 | Paulo Tabuada (2) | Formal methods in CPS- A Control Perspective |
| 15.45 – 16.15 | Break | |
| 16.15 – 18.00 | Kim Larsen | Formal methods in CPS – A computer Science Perspective |
| 19.30 | Dinner | |
| Wednesday, June 3, 2015 | | Networked Control and MPC |
| 08.45 – 10.30 | Girish Nair (2) | Nonstochastic Information Theory for Feedback Control |
| 10.30 – 11.00 | Break | |
| 11.00 – 13.45 | Maurice Heemels | Resource-aware Control |
| 12.45 – 14.00 | Lunch | |
| 14.00 – 15.45 | Alberto Bemporad | MPC for CPS |
| 15.45 – 16.15 | Break | |
| 16:15 – 18:00 | Bart De Schutter | Multi-level MPC for Water and Traffic Applications |
| 19.30 | Dinner | |
| Thursday, June 4, 2015 | | Multi-agent Systems and Industrial CP systems of systems |
| 08.45 – 10.30 | Ming Cao | Multi-agent Systems I |
| 10.30 – 11.00 | Break | |
| 11.00 – 12.45 | Kanat Camlibel | Multi-agent Systems II |
| 12.45 – 14.00 | Lunch | |
| 14.00 – 15.45 | Sebastian Engell | CPS: An Industrial Perspective / Cyber-physical Systems of Systems (CPSos) |
| 15.45 – 16.00 | Closing | |