Program for InnoCyPES 1st Training School
12/06/2022 – 22/06/2022
DTU, Kgs. Lyngby, Denmark 2800

InnoCyPES
Innovative Tools for Cyber-Physical Energy Systems

Date	Course	Topic	Description	Time slot	Contributors
Day 0 12/06/2022		Welcome	A small reception at a place for the ESRs and supervisors	17:00-20:00	DTU
Location: DTU Lyngby, Building 101, R3.081 Meeting Room S06					
Day 1 13/06/2022		Welcome Talk	Opening and welcome talk	08:45-09:00	Guangya Yang, DTU
	SC1	Offshore Wind	Wind turbine introduction and grid integration of wind, Part I	09:00-09:45	Frank Martin, SGRE
	SC1	Offshore Wind	Wind turbine introduction and grid integration of wind, Part II	10:00-10:45	Frank Martin, SGRE
	SC1	Offshore Wind	Wind turbine grid requirements, compliance testing, modelling and validation, Part I	11:00-11:45	Frank Martin, SGRE
			Lunch	12:00-13:00	
		ESR activities	Announce the ESR activities	13:00-14:00	Mirza Nuhic, DTU

	SC1	Offshore Wind	Design, control, and operation of offshore windfarms	14:00-15:00	Łukasz H. Kocewiak, Ørsted
	SC1	Offshore Wind	Offshore wind farm stability assessment	15:15-16:30	Łukasz H. Kocewiak, Ørsted
Day 2 14/06/2022	**SC1**	Offshore Wind	Wind turbine grid requirements, compliance testing, modelling and validation, Part II	09:00-10:00	Frank Martin, SGRE
	SC2	Hybrid Power Plants	Recent innovations in offshore wind and hybrid power plants.	10:00-11:00	Kaushik Das, DTU
	SC2	Hybrid Power Plants	Hybrid Power Plants, Design and Requirements	11:00-12:00	Hans Ejsing Jørgensen, Vestas
			Lunch	12:15-13:15	
		ESR activities	ESRs work in groups with given system models in power factory and PSCAD and formulate on their own tasks and present their discussion result and plan.	13:30-16:30	DTU
Day 3 15/06/2022	**TC8**	FAIR data management	Research data management	09:00-10:00	Jitka Stilund Hansen, DTU Library

	TC8	FAIR data management	Open access and data publication	10:15-11:15	Signe Gadegaard, DTU Library
			Lunch with supervisors	12:00-13:30	
			ESR Seminar - ESRs and supervisors get together	13:30-16:30	DTU
			Dinner together	17:30-21:00	DTU
Day 4 16/06/2022	**SC3**	IoT and Cloud	Introduction to SDN and its application.	09:00-10:00	José Soler, DTU
	SC3	IoT and Cloud	Introduction to state of the art of SCADA system for renewables	10:15-11:15	Mikkel Peter Sidoroff Gryning, Ørsted
	.		Lunch	12:30-13:45	
	TC2	Publication	Journal publication, how and why	14:00-15:00	Madeleine Gibescu, UU

.			ESR pitch competition	15:15-16:30	DTU
Day 5 17/06/2022	**SC2**	Hybrid Power Plants	State of the art in Power to X development	09:00-10:00	SGRE
	SC2	Hybrid Power Plants	Energy storage system state of the art	10:15-11:15	SGRE
			Lunch	11:45-12:45	
			ESR session on collaboration and interface between projects	13:00-16:00	DTU
			Social Activities	18:30-21:00	DTU

Location: DTU Lyngby, Building 101, R3.078 Meeting Room S16

Day 6 20/06/2022	**SC3**		Introduction to IoT/Cloud system and Mindsphere Basics	09:00-10:00	Siemens
	WS 1	Programming on an industrial platform	Group work based on the InnoCyPES work packages. Designing and developing an application based on use cases provided by the partners. The platform is Mindsphere.	10:15-12:30	Siemens, DTU

			Lunch	13:00-14:00	
			Group work based on the InnoCyPES work packages. Designing and developing an application based on use cases provided by the partners. The platform is Mindsphere.	14:15-16:00	Siemens, DTU
Day 7 21/06/2022	**WS 1**	Programming on an industrial platform	Group work based on the InnoCyPES work packages. Designing and developing an application based on use cases provided by the partners. The platform is Mindsphere.	8:30-11:30	Siemens, DTU
			Lunch	12:00-13:00	
			Group work based on the InnoCyPES work packages. Designing and developing an application based on use cases provided by the partners. The platform is Mindsphere.	8:30-16:00	Siemens, DTU
Day 8 22/06/2022	**WS 1**	Programming on an industrial platform	Group work based on the InnoCyPES work packages. Designing and developing an application based on use cases provided by the partners. The platform is Mindsphere.	8:30-12:00	Siemens, DTU
			Lunch	12:15-13:15	
			Group presentation and plan. Discussion and closing of the first training school.	13:30-16:30	DTU