Daily Schedule

9:30	Start Lecture
10:30	Short Break
10:40	Start Lecture
11:40	Lunch Break
14:00	Start Lecture
15:00	Short Break
15:10	Start Lecture
16:15	Close and working on assignments

Textbook:		Wang, Lihui, and Xi Vincent Wang. 2017. *Cloud-Based Cyber-Physical Systems in Manufacturing* . Cham: Springer. https://doi.org/10.1007/978-3-319-67693-7.
Location:	**Monday - Thursday:**	Lecture room M312
	Friday:	**Lecture room M231**

Course Schedule

Day	Content	Lecture No.	Book Chapter	Book Chapter No.	Responsible	Date	From	To	Location
Day1	**Part 1: Literature Survey and Trends**	0	Welcome and Course Introduction		Vincent	Vincent	9:30	10:00	M312
		1	· Latest Advancement in CPS and Industry 4.0 I	2	Vincent	March 9th	10:00	10:30	M312
		2	· Latest Advancement in CPS and Industry 4.0 II	2	Vincent	March 9th	10:40	11:40	M312
			· Lunch Break				11:40	14:00	
	Part 2: Cloud-Based Monitoring, Planning and Control in CPS	3	· Machine Availability Monitoring ~~and Process Planning~~	4	Lihui	March 9th	14:00	15:00	M312
		4	· ~~Cloud-Enabled Distributed Process Planning~~ Condition Monitoring for Predictive Maintenance	5	Lihui	March 9th	15:10	15:10	M312
Day2		5	· ~~Adaptive Machining Using Function Blocks~~ Cloud-Enabled Distributed Process Planning	6	Lihui	March 10th	9:30	10:30	M312
		6	· ~~Condition Monitoring for Predictive Maintenance~~ Adaptive Setup Planning	7	Lihui	March 10th	10:40	11:40	M312
			· Lunch Break				11:40	14:00	
	Part 3: Sustainable Robotic Assembly in CPS Settings	7	· State-of the-art of HRC in Assembly	11	Lihui	March 10th	14:00	15:00	M312
		8	· Resource Efficiency Calculation as a Cloud Service	8	Abdullah	March 10th	15:10	16:10	M312
Day3		9	· Safety in Human-Robot Collaborative Assembly	9	Abdullah	March 11th	9:30	10:30	M312
		10	· Cloud Robotics towards a CPS Assembly System	10	Abdullah	March 11th	10:10	11:40	M312
			· Lunch Break				11:40	14:00	
			· **Lab Tour**		Abdullah	March 11th	14:00	14:30	M312
			· **Hands-on Robot Programming**		Abdullah	March 11th	14:30	17:00	M312
Day4	**Part 4: CPS Systems Design and Lifecycle Analysis**	11	· Latest Advancement in Cloud Technologies and Architecture Design of Cloud CPS	1 & 12	Vincent	March 12th	9:30	10:30	M312
		12	· Product Tracking and WEEE Management	13	Vincent	March 12th	10:40	11:40	M312
			· Lunch Break				11:40	14:00	
		13	· Big Data Analytics for Scheduling and Machining	14	Lihui	March 12th	14:00	15:00	M312
			· 1 hour Discussion workshop		Lihui, Vincent, Abdullah	March 12th	15:10	16:10	M312
Day5		14	· IoT Applications Challenges in Cybersecurity	3	Vincent	March 13th	9:30	10:30	M231
		15	· Outlook of Cloud, CPS and IoT in Manufacturing, + Final Assignment	15	Vincent	March 13th	10:45	10:45	M231

			· Lunch Break				11:40	12:30	
			· Final remarks and Close		**Vincent**	**March 13th**	**12:30**	**13:00**	M231