Curriculum 2021-2022 for the students coming from the AIT

(27.10.2020)

Wireless Communications Engineering – Radio Access and Networks
DD-WCE–RAN study option

Code of the course	Name of the course	Course credits	Suggested timing													
			First year (at AIT)							Second year (at UOulu)						
			Fall		Spring		Summer			Fall		Spring		Summer		
			1	2	3	4	June	July	August	1	2	3	4	June	July	
Obligatory Studies, Total 18 AIT crs + 47 ECTS crs																
AT77.02	Signals, Systems and Stochastic Processes	3	x													
AT77.04	Data Communications	3	x													
AT77.19	Optimization for Communications and Networks	3	x													
AT77.13	Digital Communications	3			x											
AT77.17	Network QoS	3			x											
AT77.07	Cellular Mobile Systems	3	x													
900017Y	Survival Finnish(choose one)	2								x	x					
521324S	Statistical signal processing II	5										x				
521349S	Wireless Communications II	5										x				
521326S	Radio Engineering I	5									x					
521998S	Master's Thesis	30											x			
521362S	Electronics and Communications Engineering Seminar	0												x		
521007S	Maturity Test for Master's Degree	0												x		
Elective Studies, Total ≥ 7 AIT cr + 13 ECTS crs																
AT77.9019	Cross-Layer Design for Wireless Networks	3	x													
ATxx.xxxx	Internet of Things Technology and Design	3			x											
AT77.9009	Discrete-Time Statistical Signal Processing *	3			x											
AT77.18	Optical Networks	3			x											
AT80.9007	Seminar in Information and Communications	1					x									
AT77.11	Digital Modulation Techniques	3			x											
ATxx.xxxx	Wireless Technologies for Internet of Things	3	x													
900013Y	Beginner's Finnish Course I	3											x			
521386S	Radio Channels *	5									x					
521369A	Simulations and Tools for Telecommunications *	5									x					
521327S	Radio Engineering II	6										x				
521377S	Communications Networks II *	7											x			
521388S	Antennas *	5											x			
521279S	Signal Processing Systems	5										x				
521322S	Telecommunication Engineering Project **OR**	5								x						
521300S	Electronics Design and Construction Exercise	6								x						
52119xS	Modern Topics in Telecommunications and Radio Engineering	3-7										x				
521389S	Wireless Body Area Networks *	5										x	x			
521390S	Information Theory	5										x				
521389S	Wireless Body Area Networks	5										x	x			
521394S	Multiantenna Communications	5								x						
521097S	Wireless Measurements	5										x				
521225S	RF Components and Measurements	5											x			
521401S	Electronics Design II	6								x						
521435S	Electronics Design III	6									x					
521405S	Electronic System Design	5								x						
521402S	Telecommunication Circuit Design	5								x						
521273S	Biosignal Processing	5									x					
521145A	Human Computer Interaction	5									x					
521279S	Signal Processing Systems	5									x					
521148S	Ubiquitous Computing Fundamentals	5								x						
521281S	Application Specific Signal Processors	5								x						
521140S	Computer Graphics	7											x			
521290S	Distributed Systems	5										x				
521466S	Machine Vision	5										x				
521044A	Social Computing	5														
521260S	Programmable Web Project	5											x			
521479S	Software Project	7									x					

* recommended

	AIT crs	ECTS crs

Master's Degree at AIT is 49 AIT crs. The first study year in DD-WCE study program is 25 crs which is 50 % of the whole study load at the AIT.

Master's Degree at UOulu is 120 ECTS crs. The second study year in DD-WCE study program is 60 crs which is 50 % of the whole study load at the UOulu.