## 6<sup>th</sup> IRACON Training School on Machine and Deep Learning Techniques for (Beyond) 5G Wireless Communication Systems

April 8-11, 2019 CTTC, Barcelona, Spain

	Monday, April 08	Tuesday, April 09	Wednesday, April 10	Thursday, April 11
09:00-10:00	When Can Machine Learning Be Useful for Communication Systems? (1/2) Osvaldo Simeone, King's College London	Al Architectures for Beyond 5G Networks (1/2)  Mérouane Debbah, Huawei Paris & CentraleSupélec	Learning to decode error correcting codes Yair Be'ery, Tel Aviv University	Wireless Network Intelligence @ the Edge Mehdi Bennis, University of Oulu
10:00-11:00				
		Coffee break	Coffee break	Coffee break
11:00-12:00	Coffee break	Al Architectures for Beyond 5G Networks (2/2) Mérouane Debbah, Huawei Paris & CentraleSupélec	Moving to Data-Driven Machine Learning Communications Systems Tim O'Shea, DeepSig & Virginia Tech	Learn to Communicate - Communicate to Learn Deniz Gündüz, Imperial College London
	When Can Machine Learning Be Useful for Communication Systems? (2/2) Osvaldo Simeone, King's College London			
12:00-13:00				
		Lunch	Lunch	Announcement of winners and farewell
13:00-14:00	Lunch			
				Lunch
14:00-15:00		Learning the Wireless Communication Channel: From Model-Based Parameter Estimation to Deep Neural Networks Wolfgang Utschick, Technical University of Munich	Learning-based Beam Selection for Hybrid Beamforming in mmWave bands Carles Antón-Haro, CTTC	
	Autoencoders - Learn to Communicate: From Theory to Practical Over-the-Air Transmission Sebastian Cammerer, University of Stuttgart			
15:00-16:00			Coffee break and poster session	
		Coffee break		
16:00-17:00	Coffee break and poster session  Machine Learning Challenge (presentation)	Panel Discussion	<b>Machine Learning Challenge</b> (work in groups)	
17:00-17:45		Machine Learning Challenge (work in groups)		
17:45-23:00		Social event and dinner		•