

Lecture Title: Protocol emergence: Learning the language of the machines

Lecture Abstract (250 words): Today, RAN protocols are agreed at the industry level in a waterfall process that includes research, design, standardization, implementation and testing. This takes years and consumes a formidable amount of resources. Standardization is important to establish consensus between hardware manufacturers and guarantee cross-vendor inter-operability, but these negotiations not always technically driven. Can this approach be accelerated, optimized and, above all, automated? In this talk, I'll postulate protocols as the language that machines speak and will describe an ML-based framework to teach independent radio nodes how to develop their own language in a performance-maximization manner.