

Dick Carrillo Melgarejo

LUT School of Energy Systems

📍 Lappeenranta, Finland ✉ dick.carrillo.melgarejo@lut.fi

Dick Carrillo is a senior wireless system engineer. He participated in many projects on planning and designing internet of things (IoT) solutions that best fit in specific niche markets, such as agribusiness and energy systems.

His current research topics are focused on fifth Generation (5G) beyond technologies as ultra-reliable low-latency communication (URLLC) applied to Machine-Type Communication (MTC), 5G wireless architectures, orthogonal frequency division multiplexing (OFDM) and generalized frequency division multiplexing (GFDM) waveforms, non-linear systems as power amplifiers, multiple access techniques as orthogonal multiple access (OMA) and non-orthogonal multiple access (NOMA), energy harvesting, reconfigurable intelligent surface (RIS), cell-free Massive MIMO, and artificial intelligence tools applied on wireless communication.

Nowadays, Dick is a PhD. candidate at LUT University in Finland. He also holds a M.Sc. degree in electrical engineer from PUC-Rio, Rio de Janeiro, and a Bachelor degree in electronics engineer from San Marcos National University, Peru. He has lived/worked in four countries and speaks English, Spanish, Portuguese, Finnish(basic).

Awards

Nokia Foundation Scholarship , 5000 EUR grant to complement research activities	2019
CPqD Innovation Recognition , Recognition Plate and Grant Prize	2015

Education

Doctor of Philosophy (Ph.D.) , LUT School of Energy Systems, LUT University, Finland	Expected 2022
Master of Science (M.Sc.) , Dep. of Electrical Engineer, PUC-Rio, Brazil	2008
Bachelor of Science (B.Sc.) , Dep. of Electrical and Electronics Engineering, UNMSM, Perú	2004

Publications

25+ publications in peer-reviewed conferences and journals. 10+ Patents.

Job Experience

Researcher , LUT University, Lappeenranta, Finland	2018–current
Senior Wireless System Engineer , CPqD, Campinas, Brazil	2010–2018
Wireless communication system researcher , Nokia Institute of Technology, INDT, Manaus, Brazil	2008–2010
Broadcast System Engineer , Peruvian Institute of Radio and Television, LUT University, Peru	2003–2006
System Engineer , Remote Sensing Laboratory LABTEL, Universidad Nacional Mayor de San Marcos, Peru	2000–2003

Projects

FIREMAN , 5G architectures to support detection and analyses of rare events in Industrial applications.	2019–current
EE-IoT , MTC and URLLC applications that support Energy Internet applications	2018–current
AGROTICS , Development of Radio communication and Sensing Technologies for Sugarcane Production operating in Sub-1GHz bands	2016–2017
LTE-450MHz , Development of a cellular network based on the standard 3GPP Rel.8 in band 31.	2014–2015
Advanced Wireless Access Network - RASFA , Development of a cellular network based on the standard 3GPP Rel.8 for terrestrial and satellite connectivity. It also considered developing a WiFi Mesh cognitive network.	2010–2013
WISI , System Level Simulation for WiMax (802.16e/m)	2008–2010

Languages

Mother tongue: **Spanish**, Fluent: **English, Portuguese**