

Requirements for Reliable Mobile Communications in the THz Band

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Abstract

The talk starts by presenting a look into services foreseen to be available in 6G. Then, service and network characteristics and requirements are addressed, from reliability and availability to robustness and resilience. Afterwards, an analysis on the use of THz for the deployment of services and networks is performed, listing the pros and cons, and the possibility to bridge with networks in lower frequency bands. Conclusions are presented at the end.

Biography

LUIS M. CORREIA is a Professor in Telecommunications, with his work focused on Wireless & Mobile Communications, at IST (Univ. Lisbon), with the research activities developed in INESC INOV-Lab. He has acted as a consultant for the Portuguese telecommunications operators and regulator, besides other public and private entities, and has been in the Board of Directors of a telecommunications company. He has participated in 34 projects within European frameworks, having coordinated 6 and taken leadership responsibilities at various levels in many others, besides national ones. He has lectured 81 advanced training courses for industry and academia at the national and international levels. He has supervised over 240 M.Sc./Ph.D. students, having edited 6 books, contribute to European strategic documents, and authored over 550 papers in international and national journals and conferences, for which served also as a reviewer, editor and board member. Internationally, he was part of 43 Ph.D. juries, and 101 research projects and institutions evaluation committees for funding agencies in 13 countries, and the European Commission and COST. He has been the Chairman of Conference, of the Technical Programme Committee and of the Steering Committee of 25 major conferences, besides other several duties. He was a National Delegate to the COST Domain Committee on ICT. He has launched and served as Chairman of the IEEE Communications Society Portugal Chapter, besides being involved in several other duties in this society at the global level. He is an Honorary Professor of the Gdańsk University of Technology (Poland) and a recipient of the 2021 EurAAP Propagation Award "for leadership in the field of propagation for wireless and mobile communications.