RESTART Invited lecture

6G Non-Terrestrial Networks beyond: the ITA-NTN project experience

Abstract

Initially applied only to scientific missions, Earth observation and remote sensing, satellites and UAVs are now being deployed to support telecommunications services and their adoption in upcoming cellular communications is envisaged as a part of the integrated Terrestrial / Non Terrestrial network.

This lecture describes the goals and the achievements of the Integrated Terrestrial And Non-Terrestrial Networks (ITA NTN) project, which has been launched in the framework of the PNRR Research Program; the envisaged Use Cases, the baseline architectures and the enabling technologies are thoroughly described with a specific attention to the integration of conventional and emerging terrestrial communications with space and airborne entities to provide ubiquitous, resilient and 3D wireless connectivity.

Speaker's biography

Simone Morosi received the Laurea Degree in Electronics Engineering and the PhD Degree in Information and Telecommunication Engineering from the University of Florence, Florence, Italy, in 1996 and 2000, respectively. He is currently an Associate Professor with the University of Florence. His present research interests include Positioning techniques, Green ICT, Wireless and Satellite Communications.

He has published more than 50 papers in international peer reviewed journals and more than 100 contributions to books and conference proceedings. He has been involved in several National Research projects with task leadership responsibilities. He is currently Deputy PI (Principal Investigator) of the Structural Project "ITA NTN: Integration of Terrestrial and Non-Terrestrial Networks", of the Extended Partnership "RESearch and innovation on future Telecommunications systems and networks, to make Italy more smART (RESTART)".