

Special Issue

Advanced Communication Systems for Satellite-Based Ecological Parameter Retrieval

Message from the Guest Editors

Recent advancements in communication technologies, such as high-throughput satellite networks, have significantly improved data transmission efficiency and speed. Moreover, satellite constellations now offer continuous, high-resolution monitoring even in the most remote regions. Advanced communication technologies—high-throughput laser links, intelligent onboard processing, dynamic spectrum allocation, and resilient network protocols—are essential to bridge orbital data acquisition and actionable ground ecological insights, facilitating more accurate, unprecedented-scale ecological parameter retrieval. This Special Issue aims to explore the latest advancements in satellite-based communication systems and their application in ecological parameter retrieval. By highlighting the integration of satellite constellations, machine learning techniques, and real-time data transmission, it seeks to advance scientific understanding of satellite systems' contribution to global ecological monitoring. We look forward to receiving your contributions.

Guest Editors

Dr. Ting Ma

Dr. Bo Qian

Dr. Pengfei Lin

Dr. Songwei Zhang

Dr. Ran Li

Dr. Hang Zhou

et al.

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Electronics
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
electronics@mdpi.com

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guestedited by leading experts in selected topics of interest.

Editor-in-Chief

Prof. Dr. Flavio Canavero

Department of Electronics and Telecommunications, Politecnico di Torino, 10129 Torino, Italy

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