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"ASSESSING THE IMPACT OF ILLEGAL BUILDINGS USING HIGH-RESOLUTION SATELLITE IMAGERY"

Abstract

Earth Observation Data Systems and Technology refer to the systems, tools, and technologies used to collect, process, manage, analyze, and visualize data from Earth observation (EO) satellites, aircraft, and other remote sensing platforms. The goal of Earth Observation Data Systems and Technology is to provide a comprehensive and integrated view of the Earth's land, atmosphere, oceans, and cryosphere, as well as to support various scientific, environmental, and economic applications.

Earth Observation Data Systems and Technology encompasses a wide range of technical fields, including:

Data acquisition: This involves the collection and reception of EO data from various sources, including satellites, aircraft, drones, and ground-based sensors.

Data processing: This involves the conversion of raw EO data into useful information products, such as maps, images, and environmental variables.

Data management: This involves the storage, organization, and dissemination of EO data, as well as the development of databases and data access services.

Data analysis: This involves the use of algorithms, statistical techniques, and machine learning methods to extract meaningful information from EO data.

Data visualization: This involves the use of graphical representations and interactive visualizations to facilitate the interpretation and communication of EO data and results.

Earth Observation Data Systems and Technology play a critical role in the advancement of many fields, including earth sciences, environmental monitoring, climate change research, natural resource management, disaster response and risk assessment, and more.