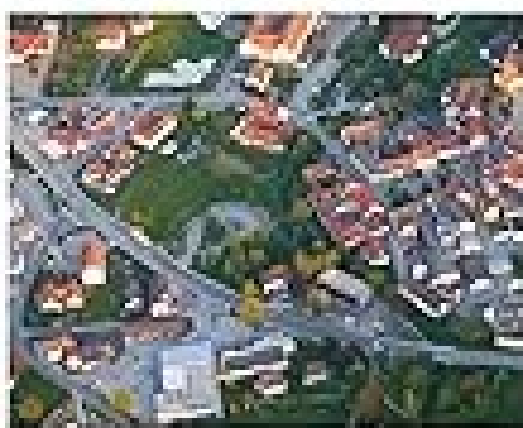
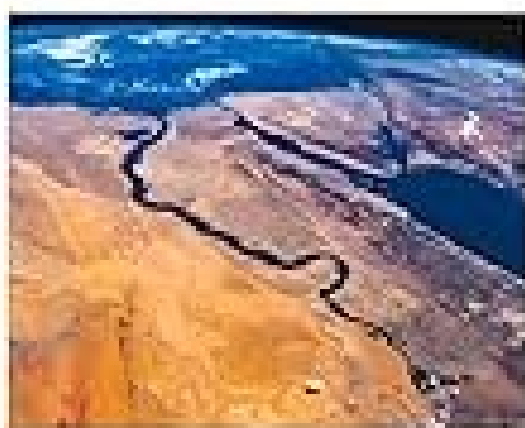




# Google Earth Engine and Artificial Intelligence for Earth Observation

Algorithms and Sustainable Applications



*Edited by*

Vishakha Sood, Dilip Kumar Gupta, Sartajvir Singh,  
Biswajeet Pradhan



**Earth Observation Series**



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## Chapter 5 - Cloud computing platforms–based remote sensing big data applications

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### Abstract

Google Earth Engine (GEE) stands as the leading cloud-based geospatial remote sensing data processing platform. GEE repositories contain a range of satellite imageries, which can be used for various environmental applications, thanks to its easy and user-friendly application programming interface (API). One of the most compelling features of GEE includes enabling its users to explore, analyze, and visualize big geospatial data easily, all without requiring access to supercomputers or specialized coding expertise. Remarkably, even a decade after GEE's launch, its impact on remote sensing and geospatial science remains largely unnoticed. In this review, we provide a state-of-the-art report on the usage of cloud computing platforms such as GEE for processing various remote sensing data sources. We further explore the application of GEE for assessing vegetation health, agricultural monitoring, disaster management, image processing, and numerous other environmental applications using GEE.

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