

Application of Advanced Remote Sensing Data in Mineral Exploration in the Vicinity of Heavy Dense Forest Cover Area of Jharkhand and Odisha State Mining Area

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Abstract : The study has been carried out on the Saranda in Jharkhand and a part of Odisha state. Geospatial data of Hyperion, a remote sensing satellite, have been used. This study has used a wide variety of patterns related to image processing to enhance and extract the mining class of Fe and Mn ores. Landsat-8, OLI sensor data have also been used to correctly explore related minerals. In this way, various processes have been applied to increase the mineralogy class and comparative evaluation with related frequency done. The Hyperion dataset for hyperspectral remote sensing has been specifically verified as an effective tool for mineral or rock information extraction within the band range of shortwave infrared used. The abundant spatial and spectral information contained in hyperspectral images enables the differentiation of different objects of any object into targeted applications for exploration such as exploration detection, mining.

Keywords : Hyperion, hyperspectral, sensor, Landsat-8

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