

## **Water Depth and Optical Attenuation Characteristics of Natural Water Reservoirs nearby Kolkata City Assessed from Hyperion Hyperspectral and LISS-3 Multispectral Images**

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**Abstract :** A methodology is proposed for estimating the optical attenuation and proportional depth variation of shallow inland water. The process is demonstrated with EO-1 Hyperion hyperspectral and IRS-P6 LISS-3 multispectral images of Kolkata city nearby area centered around 22°33' N 88°26' E. The attenuation coefficient of water was found to change with fine resolution of wavebands and in presence of suspended organic matter in water.

**Keywords :** hyperion, hyperspectral, Kolkata, water depth

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