Hyperspectral Remote Sensing For Agricultural Management: A Survey

Abstract

Hyperspectral sensors are devices that acquire images with narrow bands (less than 20nm) with continuous measurement. It extracts spectral signatures of objects or materials to be observed. Hyperspectral have more than 200 bands. Hyperspectral remote sensing has been used over a wide range of applications, such as agriculture, forestry, geology, ecological monitoring, atmospheric compositions and disaster monitoring. This review details concept of hyperspectral remote sensing; processing of hyperspectral data. It also focuses on the application of hyperspectral imagery in agricultural development. For example, hyperspectral image processing is used in the monitoring of plant diseases, insect pests and invasive plant species; the estimation of crop yield; and the fine classification of crop distributions.

References

- Charez Jr, P. S. Kwartenz "Extracting spectral contrast in Landsat Thematic Mapper image data using selective component analysis"; International Journal of


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Index Terms

Computer Science

Image Processing

Keywords

Hyperspectral  Multispectral  Remote sensing  Spectrometer