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HYPERSPECTRAL VERSUS MULTISPECTRAL DATA FOR ZONATION OF VEGETABLE SPECIES: A ABSTRACT

Josiclêda D. Galvíncio*

* Adjunt Professor of Geography Department. Universidade Federal de Pernambuco – UFPE/CFCH. Av. Prof. Moraes Rego, 1235. Cidade Universitária, Recife-PE. CEP: 50.670-901.
E-mail: josicleda@hotmail.com.

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1. Text

Motivated by the increasing importance of hyperspectral remote sensing data and encouraged to improve the use of physical-mathematical models that a necessity multispectral image, this text wants to perform a abstract of correspondence between hyperspectral and multispectral information to improve of zonation environmental and plant species.
Many studies have sought to establish relationships between field and remote sensing data. In general, correlates the vegetation indices measured and observed spectral responses, and few studies with canopy reflectance (Lee et al., 2004). Many researchers have felt the need to correlate hyperspectral data with multispectral remote sensing data, (Silva, 2012, Galvíncio et al., 2011).
Hyperspectral remote sensing can be used to study the state of our environment and track changes that occur over time. This technology is presented in studies of zonation of species in ecosystems.
The Normalized Difference Vegetation Index- NDVI is a vegetation index which has been widely used for zonation of vegetation in diferente biomes cover using multispectral data. Several studies have shown a strong ralationship between red-edge position and NDVI values.
Challenges in hyperspectral imaging of tropical forests: Hyperspectral remote sensing of ecosystem is not a new, a large number of studies have focused on a range of ecosystem properties and processes over the years. On the other hand, airborne and space-based hyperspectral remote sensing of tropical forests is still extremely new, with only a few studies recently published. These efforts highlight the potential contribution of imaging spectroscopy to studies of tropical forest biochemistry, physiology and diversity. The hyperspectral remote sensing can serve as an interactive, exploratory tool for probing tropical forests, allowing for both new and improved knowledge about their structure and function. However, several challenges remain, including issues of sensor design and precision, algorithm development and even the very basic of tropical forest ecology and taxanomy. In order, the use hyperspectral remote sensing has been promising in to characterize chemical and physical properties of vegetation. When combined with multispectral remote sensing may promote progress in monitoring the physical and chemical properties of spatial and temporal scale.

Key words: NDVI, reflectance, HandHeld, FieldSpec.

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