PIXELS INDIVIDUAIS TRATADOS COMO OBJETOS PARA A CLASSIFICAÇÃO DA COBERTURA DA TERRA: INTEGRAÇÃO ENTRE GEOBIA E MINERAÇÃO DE DADOS GEOGRÁFICOS NA REGIÃO METROPOLITANA DO RIO DE JANEIRO (RMRJ)

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ABSTRACT

Thematic mappings are a relevant source of information for the most varied areas of knowledge, assisting in effective planning and decision making. Cartographic production has been considerably revolutionized by the advances in Digital Image Processing (PDI) of remote sensors, as they help both the elaboration and updating of the maps in a more agile and with reduced costs. In this perspective, the objective of this work is to evaluate the adoption of individual pixels as "objects" for the classification of land cover in the Metropolitan Region of Rio de Janeiro through the integration between GEOBIA and Geographic Data Mining, and using as inputs the spectral indexes (NDVI and NDWI) and transformed images (PCA, IHS and TasseledCap) from OLI / LANDSAT-8 data. These, in turn, present moderate spatial resolution, which is affected by the Spectral Mixture. As a result, the land cover map reached high precision due to the Kappa Index of 0.871 and the perception that the attributes that most assisted in the classification were those from the TasseledCap Transformation.

Keywords: Remote Sensing, Individuals Pixels, Objects, Geographic Data Mining.