

Airborne Hyperspectral Imaging for Mapping of Pavement Cracks on Malaysian Highways

ABSTRACT

Highway development and the increase of multiple modes of transportation have encourage the needs of highway management and maintenance parallel to a developed country. In Malaysia, the North South Express Highway (PLUS) is regularly maintaining their highways, especially the pavement cracks. Therefore, the latest and accurate information is required on pavement cracks for the maintenance and the management of the highway. A study was therefore conducted to identify and map pavement cracks on Bukit Lanjan PLUS highway using an airborne imaging system to save time, energy and cost. Airborne digital image from UPM - Aeroscan Precision (M) Sdn. Bhd. which was acquired on 19th February 2004 was utilized in this study. After processing using ENVI software version 4.0, results indicated that no cracks were mapped using this sensor. The study implies that future pavement crack mapping should be done using a higher resolution airborne data of less than 1m.

Keyword: Pavement, cracks, highway, airborne, hyperspectral, imaging