

## LANDSCAPE CHANGE DETECTION USING SATELLITE DATA AND GIS TECHNIQUES IN SURANAREE DISTRICT, NAKHON RATCHASIMA, THAILAND

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**Abstract:** Application of digital change detection techniques using multitemporal satellite imagery dataset provides understanding of landscape dynamics over time. The study demonstrates the spatial and temporal dynamics of the landscape in Suranaree district, Nakhon Ratchasima province, where it locates on Korat plateau, northeastern of Thailand. Satellite imagery dataset of two different time periods were used. Classification method had been employed using maximum likelihood and support vector machine techniques. The study area was categorized into six different classes namely settlement and built-up, natural forest, plantation, agriculture, barren area, and water body. The importance of digital change detection on the landscape of Suranaree district had been highlighted and discussed.

**Keywords:** Landscape change detection, Satellite data, GIS techniques, Nakhon Ratchasima, multitemporal imagery.