

**EFFECTIVENESS OF SPACE BORNE DATA IN IDENTIFYING
THE CHANGING PATTERN OF SURFACE TEMPERATURE IN
AN URBAN AREA: A CASE STUDY IN THE CITY OF COLOMBO**

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The recent climatological studies carried out by several scholars have demonstrated that the surface temperature in urban areas is higher than the neighbouring vegetated areas. Unavailability of data for a large number of stations in a relatively small area is one of the major constraints to the study this problem. One solution to this is to use space-borne data to estimate temperature variation over an area. The present study is based on Landsat ETM+ (2003) data and socio-economic data. A very significant distance-decay relationship exists between the temperature and the distance from the centre of City of Colombo. Demography and land use are positively correlated with the surface temperature in the city of Colombo, whilst Normalized Different Vegetation Index (NDVI) demonstrates a significant negative relationship.