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**INFLUENCE OF CLIMATE FOR THERMAL COMFORT  
AND LAND COVER ELEMENT CHANGE IN SUBURBAN  
CITES IN SRI LANKA**

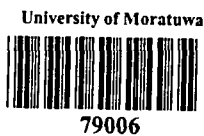


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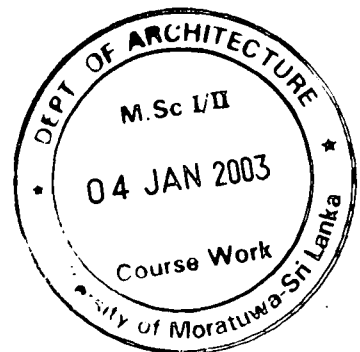
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## ABSTRACT





## ABSTRACT

It is known that Urbanization has great correlation with its own micro climate. In planning and urban design point of view urbanization has to consider and deal about the changes of the physical environment / land cover. (Built areas, tree covered areas, green / grass areas, open areas, water bodies, roads and paved areas). To identify the effects of urbanization to a particular area and its micro climate, use climate data and Arial photographs to calculate as thermal comfort and physical element change.

The study based on Time Rate Change Method, series of arial photographs from the Sri Lanka Survey Department taken within last three decades uses to get the idea of land cover / physical element change occurred to select cites. Climatic data (Day and night temperature, Maximum and minimum relative humidity) taken from the Meteorological Department provide basis to calculate monthly day and night thermal comfort of the cities over the research period of 30 years.

The study considered three suburban cities in Sri Lanka belongs to three climatic zones of the island; Galle, Trincomalee and Nuwara Eliya. For the study considered 1 km radius circle around the meteorological stations. As the research period take 30 years from 1971 up to 2000.

The study highlights the urban physical element change; occurred due to urbanization during the studied period contributed to thermal comfort variations. Finally this research pint out some very important relationships between urban physical element change and thermal comfort change.