

PREFACE

In the present era of 21st century, development, ceaseless growth or urban sprawl along with the addition of rapid growth in the industrialization has decreased the vegetation and is responsible for the momentous increase in urban area which has changed the natural surface of land. The root cause of this increase in urbanization is the necessity of houses, infrastructure for the ever growing never stopping population.

This study will help us understand how the change in the Land Use Land Cover can affect the Land Surface Temperature (LST) ultimately leading to Urban Heat Islands. The city of Delhi and Udaipur has been developing and is on the rise which can be a considered a good thing but this rise needs to be in control. There should be effective measures placed that can control the temperature rise (for e.g., Increase in forest cover) if there is a need for development.

The COVID Pandemic has impacted the day to day lives of many people since it began at the beginning of 2020. The world came to a halt in these 2 years. There was a severe lockdown for the most part of these two years which has had a visible impact on the LST. Since the traffic, air pollution, urbanization came to a halt it has stunted the increase in LST. This project will help us understand what kind of an impact does lockdown because of a pandemic have on the Land Surface Temperature of the crowded cities of our country.

Geographic Information System and Remote Sensing technologies have a very huge potential in contributing for the analysis of the global phenomenon's happening around the world. The imageries captured using the different satellites are used for the analysis in GIS and are used widely as the data sources for spatial and temporal observations of the Earth's Surface. We can use them to monitor a certain area or a surrounding to observe changes over the course of years and find out the differences. In today's world we have seen many problems arise due to the phenomenon of Global Warming. Problems like water shortage, temperature rise, storm damages, fire threats arise due to it. On top of this due to the changes in land cover and land use there is a rise in the land surface temperature causing urban heat islands. This project will help in analyzing the impact of the changes in the land cover, land use on urban heating.