

RESOURCE PLANNING AND MAPPING OF NITK USING REMOTE SENSING (RS) AND GEOGRAPHIC INFORMATION SYSTEM (GIS)

Major Project Report

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CHAPTER – 1: INTRODUCTION

1.1) Objective of the project:

The objective of the study is to create a geodatabase of the 300 acres spread campus of National Institute of Technology Karnataka, Surathkal (NITK) using Remote Sensing and Geographic Information System and hence to prepare the resource planning maps of the campus for fast, efficient, economical and easy resource allocation as and when required.

1.2) Significance of the project:

National Institute of Technology Karnataka is a reputed institute in India and around the globe, having partner universities all over the world. It is an institute funded by the Ministry of Human Resource Development, Govt of India. The institute is achieving an enormous amount of success in terms of education, research, sports and cultural activities and hence is attracting students from all over the globe for technological studies.

The institute is spread over an area of 300 acres with highly sophisticated and state of the art infrastructure. **The fact that the university has become a dream destination for the young Indian and foreign students brings in the necessity of more infrastructure development which should be sustainable, economical, fast and efficient.** Consequently, a need for much precise and bankable resource allocation crops up. This in turn brings in the need to have an accurate resource mapping of the complete geographical area of the institute comprising the geo-

relational and attribute data of different geographical features **which can be referred by the surveyors, engineers for planning, designing and estimation.**

The need for a resource mapping gains more importance given the fact that the geographical area of the institute is too large to be surveyed at one instant and a large amount of maintenance works go on very often.

An accurate resource mapping of the campus can save large amount of capital, manpower and time in the future. It can help in making the campus a world class one.

1.3) About the study area:

The National Institute of Technology Karnataka Surathkal (NITK) is situated in southern India in the state of Karnataka at a latitude of 13° 0' 12" & longitude of 74° 47' 24". NITK is located in Mangalore City along the Kanyakumari-Mumbai National Highway 66. The Institute is located amid 300 acres of sylvan surroundings with the picturesque Western Ghat Mountains on the east and the sun-kissed sands of the Arabian sea to the west. The Mangalore (Bajpe) airport and the Mangalore Railway Station are about 20 KMs. away from the Campus, while Surathkal Railway Station is about 3 KMs. away from the campus. The campus is located far away from the din and bustle of a city and is very conducive for academic activities. The climate throughout the year is equitable and has temperature range of 18 to 38 degree Celsius. The campus being on the seashore is blessed with clean air and healthy climate.