

### INSTITUTE OF SCHENCE & TECHNOLOGY FOR ADVANCEDS TUDIES & RESEARCH

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A Project Report on

# SPATIAL STORE LOCATION OPTIMIZATION FOR FMCG RETAILERS: A GIS BASED APPROACH TO LOCATION ALLOCATION ANALYSIS

Submitted by DHWANI PRAGNESH SONI (Roll no: 21Gl02)

Guided by:

DR. KRUNAL B. SUTHAR

HOD, Geoinformatics Department - ISTAR

The CVM University

V.V. Nagar-388 120, Gujarat, India

Academic year 2022-2023



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ISTAR - Constituent College of CVM University

1st Rank among All Colleges of Gujarat by KCG (GSIRF) - 2021

Recognized under Section 2(f) and 12(B) of the UGC Act, 1956



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## CERTIFICATE

This is to certify that the project work embodied in this report entitled SPATIAL STORE LOCATION OPTIMIZATION FOR FMCG RETAILERS: A GIS BASED APPROACH TO LOCATION ALLOCATION ANALYSIS" was carried out by Miss. Dhwani Pragnesh Soni (21GI02) at the Geoinformatics department, Institute of Science and Technology for Advanced Studies Research (ISTAR)- CVM University, Vallabh and Vidyanagar fulfillment of the requirement for the award of M.Sc. (Geoinformatics) for the Project Work (101400401). This project work has been carried out under my guidance and it is up to my satisfaction.

Dr. Krunal B. Suthar Project Guide,

Head Geoinformatics Department,

**ISTAR-CVM University** 

Dr. M. M. Raysing I/C Principal, ISTAR-CVM University





Ref: TDC/HR/CER/2023/375

Date: 01st May 2023

# **Certificate for Internship**

This is to certify that **Ms. Dhwani Pragnesh Soni** a Student of 2<sup>nd</sup> Year (4<sup>th</sup> Sem.) M.Sc Geoinformatics with Enrol. No 22101400301007 from Institute of Science & Technology for Advances Studies & Research (ISTAR), Vallabh Vidyanagar (Gujarat) has undertaken Internship at Theodesh Consultants -Vadodara from 1<sup>st</sup> September 2022 to 30<sup>th</sup> April 2023.

During this period she has carried out her thesis with us, her area of thesis was Spatial Store Location Optimization for FMCG Retailers: A GIS Based Approach to Location Allocation Analysis. She has worked in worked in data collection, data processing and data analytics. She has been methodical in defining process and finding solution. The finding of the thesis has been of good use and expected results were achieved during the thesis.

For, Theodesh Consultants

VADODARA

Nilraj Chhasatiya

(GIS Head)



# **ACKNOWLEDGEMENT**

I would like to express my Sincere Gratitude to my internal Guide and HOD (Geo-informatics Dept. - ISTAR) Dr. Krunal Suthar, for his unconditional support and guidance throughout my research. I am also very grateful to my external guide and GIS Head at 'Theodesh Consultants', Mr. Nilraj Chassatiya for his encouragement and guidance. His expertise and Knowledge have been invaluable in shaping this thesis.

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I would also like to thank my institution and our Principal Dr. M.M. Raj, I/C Principal, ISTAR, CVM University, Charutar Vidyamandal for his kind support.

I am also very grateful to my family for their unconditional support and always keeping their hopes high to me and never losing confidence in me.

Thanking you

Dhwani Pragnesh Soni

(21GI02)