



INSTITUTE OF SCIENCE & TECHNOLOGY FOR ADVANCED STUDIES & RESEARCH
ISTAR - Constituent College of CVM University
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**A Project Report on
Remote Sensing-Based Study for Evaluating the Changes in
Glacial Area through Optical and Thermal Data: A Study from
Tehri Garhwal, India**

**Submitted by
Krutik Bhupeshkumar Khatri
(Roll No: 22GI04, Enrollment No: 22201400301004)**

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**Academic year
2023-2024**



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Guided by:

DR. KRUNAL B. SUTHAR

HOD, Geoinformatics Department - ISTAR

The CVM University

V.V. Nagar-388120, Gujarat, India

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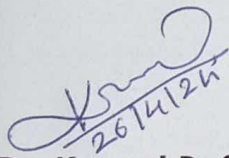
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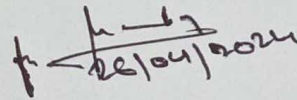


CERTIFICATE

This is to certify that the project work embodied in this report entitled **"REMOTE SENSING BASED STUDY FOR EVALUATING THE CHANGES IN GLACIAL AREA THROUGH OPTICAL AND THERMAL DATA: A STUDY FROM TEHRI GARHWAL, INDIA"** was carried out by **Mr. KRUTIK BHUPESHKUMAR KHATRI (22201400301004)** at the Geoinformatics department, Institute of Science and Technology for Advanced Studies and Research (ISTAR) - CVM University, Vallabh Vidyanagar fulfilment of the requirement for the award of **M.Sc. (Geoinformatics)** for the **Project Work (201400401)**. This project work has been carried out under my guidance and it is to my satisfaction.


26/11/24

Dr. Krunal B. Suthar
Project Guide,
Head, P.G. Department of Geoinformatics
ISTAR-CVM University


26/04/2024

Dr. M. M. Raj
Principal,
ISTAR-CVM University
PRINCIPAL
INSTITUTE OF SCIENCE & TECHNOLOGY
FOR ADVANCED STUDIES & RESEARCH
(ISTAR)
VALLABH VIDYANAGAR-388120



Ref.: SGL/HR/2024-25

Date: 17th April, 2024

TO WHOME IT MAT CONCERN

This is to certify that **Mr. Krutik Bhupeshkumar Khatri**, has Successfully completed his traineeship in the field of **Remote sensing-based study for evaluating the changes in glacial area through optical and thermal data: A Study from Tehri Garhwal, Uttarakhand, India.** from 03rd October, 2023 to 15th April, 2024. Under the guidance of **Sagar Shah**.

During the period of his internship program with us, he had been exposed to different process and was found diligent, hardworking and inquisitive.

We wish him every success in his life and career.

Yours Sincerely,



Mr. Rajesh Jesani

Senior Executive Manager – Human Resources

ACKNOWLEDGEMENT

I am writing to express my sincere gratitude for the invaluable support and guidance extended to me during the completion of my thesis work on “Remote Sensing-Based Study for Evaluating the Changes in Glacial Area through Optical and Thermal Data: A Study from Tehri Garhwal, India” my vision, encouragement, and commitment to academic excellence have been instrumental in shaping the trajectory of my research journey.

I would like to extend my heartfelt appreciation to Dr. Krunal Suthar Head and Assistant Professor of Geoinformatics Department, and Ms. Akangsha Verma for his invaluable guidance and mentorship as my internal guide throughout this endeavor. His expertise, scholarly insights, and unwavering support have significantly contributed to the successful completion of my thesis.

Furthermore, I am deeply grateful to Mr. Sagar Shah for his invaluable contribution as an external guide. His expertise and guidance have been pivotal in broadening the scope of my research and enhancing its depth.

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I would also like to express my gratitude to Scanpoint Geomatics Limited for their support and assistance throughout my project work. Their resources and expertise have been invaluable assets in facilitating the research process and enhancing the quality of my work.

Completing this project has been a significant milestone in my academic journey, and I am profoundly grateful for the opportunity to work under the guidance of such esteemed mentors. Your support and mentorship have not only enriched my academic experience but also inspired me to strive for excellence in all my endeavors.

Thanking you

Krutik Bhupeshkumar Khatri