



**ATMIYA
UNIVERSITY**

**DESIGN AND DEVELOPMENT OF A MODEL FOR
CLASSIFICATION AND MAPPING OF LAND
USE/LAND COVER USING MULTI SPECTRAL
SPACE BORN REMOTE SENSING IMAGES**

A

Thesis

Submitted to the
Atmiya University,
For the Degree
of

Doctor of Philosophy
in

COMPUTER SCIENCE

by

Nirav H Desai

Enrolment No. 191881001

Under the Guidance of

Dr. Parag Shukla

Department of Computer Science

**ATMIYA UNIVERSITY,
Yogidham Gurukul, Kalawad Road,
Rajkot–360005, Gujarat (India)**

August, 2023

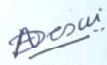
Declaration by the Candidate
Originality of Research Work

I declare that thesis entitled “*Design and Development of a Model for Classification and Mapping of Land Use/Land Cover Using Multi Spectral Space Born Remote Sensing Images*” is my own work conducted under the supervision of **Dr. Parag Shukla** at Department of **Computer Science**, Faculty of **Science**, Atmiya University, Rajkot, Gujarat, India and approved by the Director of Research.

I further declare that to the best of my knowledge the thesis does not contain any part of any work which has been submitted for award of any degree either in this University or any other University without proper citation.

Date: 22/08/2023

Place: Atmiya University, Rajkot


Nirav H Desai

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This is to certify that work entitled "*Design and Development of a Model for Classification and Mapping of Land Use/Land Cover Using Multi Spectral Space Born Remote Sensing Images*" is a piece of research work done by **Nirav H. Desai** under my supervision for the degree of Doctor of Philosophy in Department of **Computer Science**, Faculty of **Science**, Atmiya University, Rajkot, Gujarat, India

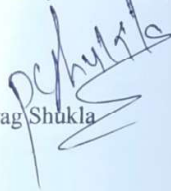
To the best of my knowledge and belief the research work and thesis

- I. Embodies the work of candidate himself,
- II. Has duly been completed,
- III. Fulfils the requirement of ordinance related to Ph.D. degree of the University &
- IV. is up to the standard both in respect of content and language for being referred to the examiner.

Date: 22/08/2023

Place: Atmiya University, Rajkot

Dr. Parag Shukla



Thesis Approval Form

The Viva-Voce of the Ph.D. thesis entitled "*Design and Development of a Model for Classification and Mapping of Land Use/Land Cover Using Multi Spectral Space Born Remote Sensing Images*" submitted by **Desai Nirav Harshadrai (Enrolment No. 191881001)** was conducted on **21/08/2023 (Monday)** at Atmiya University, Rajkot, Gujarat

Based on the Performance of the Candidate, We, the panel of examiners, recommend that
(Please tick any of the following)

1. He / She be awarded Ph.D. Degree
2. He / She be awarded Ph.D. Degree with minor modification

Please Suggest Modification

3. The following modifications are to be incorporated in the thesis within one month and viva-voce be re-conducted by the same panel of examiners

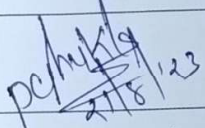
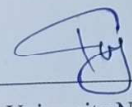
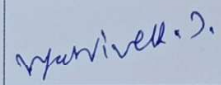
Please Suggest Modification

4. He / She should not be awarded Ph.D. Degree

Please mention Reason for Rejection

Date: 21/08/2023

Place: Rajkot

Signature			
	Research Supervisor	University Nominee	External Examiner



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(Established under the Gujarat Private University Act 11, 2018)

Yogidham Gurukul, Kalawad Road, Rajkot - 360005, Gujarat (INDIA)

Certificate

Pre Thesis Submission Presentation

This is to certify that **Desai Nirav Harshadrai** has made Pre Ph.D. presentation on the research work entitled **Design and Development of a Model for Classification and Mapping of Land Use/Land Cover Using Multi Spectral Space Born Remote Sensing Images** in the Faculty of Science, Atmiya University, Rajkot on 30/05/2023 before Departmental Research Committee for getting feedback and comments.

This is also to certify that all the suggestions and comments given by the Doctoral Progress Review Committee are incorporated. Moreover the presented research work was appreciated and recommended by all attendees.

Date: 30/05/2023

Place: Rajkot

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Research, Innovation & Translation



Declaration by Research Scholar

Submission of Thesis

I declare that the submitted thesis entitled "*Design and Development of a Model for Classification and Mapping of Land Use/Land Cover Using Multi Spectral Space Borne Remote Sensing Images*" incorporates

1. All the suggestions / directions / modifications / additions / deletions received from the supervisor and the external examiners through their thesis evaluation reports.
2. All the suggestions / directions / modifications / additions / deletions received from the panel of examiners during the public viva-voce (Open Defence) conducted on **21/08/2023**.

Date: 22/08/2023

Place: Atmiya University, Rajkot



Nirav H Desai

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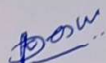
I express my sincere thanks to our principal **Dr. Snehal K. Joshi** for rendering his kind cooperation and support.

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Nirav H. Desai