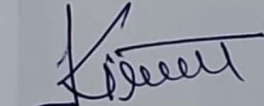# Declaration by Research Scholar
Originality of Research Work

I declare that thesis entitled *"Image and Video Watermarking: "Machine Learning and Frequency Domain Approach for Achieving Dual Security of Important Information.""* is my own work conducted under the supervision of **Kiran Ashok Pithiya** at Department of **Electronics & Communication**, Faculty of **Engineering & Technology**, 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: 06|01|2025

Place: Rajkot

[Kiran Pithiya]
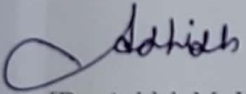
Certificate of Supervisor

This is to certify that work entitled *"Image and Video Watermarking: "Machine Learning and Frequency Domain Approach for Achieving Dual Security of Important Information.""* is a piece of research work done by **Kiran Ashok Pithiya** under my supervision for the degree of Doctor of Philosophy in Department of **Electronics & Communication**, Faculty of **Engineering & Technology**, Atmiya University, Rajkot, Gujarat, India

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

I.   Embodies the work of candidate herself,

II.   Has duly been completed,

III.   Fulfils the requirement of ordinance related to Ph.D. degree of the University & is up to the standard both in respect of content and language for being referred to the examiner.

Date:

Place:

Ashish

[Dr. Ashish M. Kothari]

Certificate

Pre Thesis Submission Presentation

This is to certify that **Kiran Ashok Pithiya** has made Pre Ph.D. presentation on the research work entitled **IMAGE AND VIDEO WATERMARKING: MACHINE LEARNING AND FREQUENCY DOMAIN APPROACH FOR ACHIEVING DUAL SECURITY OF IMPORTANT INFORMATION** in the Faculty of Engineering & Technology, Atmiya University, Rajkot on 24/12/2024 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: 24/12/2024

Place: Rajkot

Director

Centre for Research, Innovation & Translation

Thesis Approval Form

The Viva-Voce of the Ph.D. thesis entitled "*IMAGE AND VIDEO WATERMARKING: MACHINE LEARNING AND FREQUENCY DOMAIN APPROACH FOR ACHIEVING DUAL SECURITY OF IMPORTANT INFORMATION*" submitted by **Kiran Ashok Pithiya (Enrolment No. 210156001)** was conducted on **04/01/2025 (Saturday)** 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
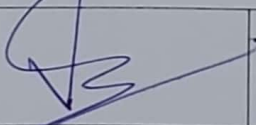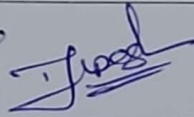
Please Suggest Modification

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

Please mention Reason for Rejection

Date: 04/01/2025

Place: Rajkot

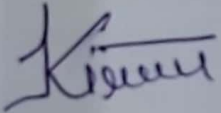| Signature			
	Research Supervisor	University Nominee	External Examiner

Declaration by Research Scholar

Submission of Thesis

I declare that the submitted thesis entitled *"Image and Video Watermarking: "Machine Learning and Frequency Domain Approach for Achieving Dual Security of Important Information.""* 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

Date: 06|01|2025

Place: Rajkot

[signature]

[Kiran Pithiya]

Acknowledgment

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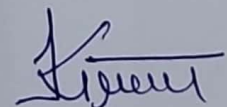
I would like to thank all the faculty members, administrative staff, and laboratory personnel of Atmiya University, for their kind assistance and cooperation. My deepest gratitude also goes to Dr. Haribhai Kataria, Dean, Faculty of Science, M.S.University, Baroda, for being a constant source of motivation. I sincerely thank Dr. Prashant Mehta, Head of Department of Computer Applications, Faculty of Science, M.S.University, Baroda, for his continued encouragement and support.

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I would also like to express my gratitude to my friends and colleagues for their support and encouragement throughout this journey.

Finally, I extend my sincere thanks to everyone who has contributed, directly or indirectly, to the successful completion of this work. Your help and support have been instrumental in achieving this milestone, and I am deeply thankful.

[Kiran Pithiya]