

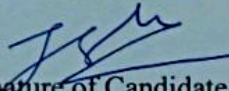
Declaration by the Candidate

I declare that thesis entitled "*To Identify Learning Path for Novice Programmer Based on Semi-supervised Dataset Using Proposed Machine Learning Algorithm*" is my own work conducted under the supervision of **Dr. Parag C. 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: 01/01/2025

Place: Rajkot


Signature of Candidate

Shukla Kapil Kaushikkumar

Certificate of Supervisor

This is to certify that work entitled "*To Identify Learning Path for Novice Programmer Based on Semi-supervised Dataset Using Proposed Machine Learning Algorithm*" is a piece of research work done by **Shukla Kapil Kaushikkumar** 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 / herself,
- 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:

01/01/2025

Place:

Signature of Supervisor

Dr. Parag C. Shukla



ATMIYA UNIVERSITY

(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 **Shukla Kapil Kaushikkumar** has made Pre Ph.D. presentation on the research work entitled **To Identify Learning Path for Novice Programmer Based on Semi-supervised Dataset Using Proposed Machine Learning Algorithm** in the Faculty of Science, Atmiya University, Rajkot on 19/12/2024 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: 19/12/2024

Place: Rajkot



Director

Centre for Research, Innovation & Translation

Thesis Approval Form

The Viva-Voce of the Ph.D. thesis entitled "*To Identify Learning Path for Novice Programmer Based on Semi-supervised Dataset Using Proposed Machine Learning Algorithm*" submitted by **Shukla Kapil Kaushikkumar (Enrolment No. 210881002)** was conducted on **30/12/2024 (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

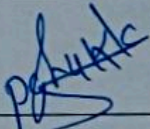
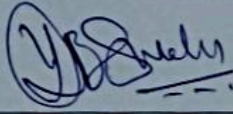
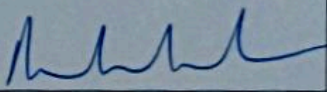
Please Suggest Modification

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

Please mention Reason for Rejection

Date: 30/12/2024

Place: Rajkot

Signature			
	Research Supervisor	University Nominee	External Examiner

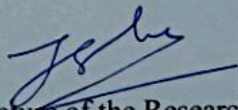
Declaration by Research Scholar Submission of Thesis

I declare that the submitted thesis entitled "*To Identify Learning Path for Novice Programmer Based on Semi-supervised Dataset Using Proposed Machine Learning Algorithm*" 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 **30/12/2024**.

Date: 01/01/2025

Place: Rujkot



Signature of the Research Scholar

Shukla Kapil Kaushikkumar

Acknowledgement

I would like to begin by expressing my deepest gratitude to my esteemed guide, Dr. Parag C. Shukla, for his exceptional guidance, continuous support, and invaluable insights throughout my doctoral journey. His expertise and encouragement have been pivotal in shaping my research and pushing me toward academic excellence. I am truly fortunate to have had the opportunity to work under his mentorship.

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Thank you to everyone who has contributed to this journey, whether directly or indirectly. Your support has been invaluable, and I am sincerely grateful to all of you.

Shukla Kapil Kaushikkumar