

**REAL-TIME MULTI-DIGIT HANDWRITTEN
RECOGNITION USING CONVOLUTIONAL NEURAL
NETWORK**

MINI-PROJECT REPORT

Submitted to



**JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD,
KUKATPALLY, HYDERABAD – 500 085.**

in partial fulfilment of the requirements for

the award of the degree of

**BACHELOR OF TECHNOLOGY in
COMPUTER SCIENCE AND ENGINEERING**

Submitted by

Ayesha Siddiqua– 22L51A0515

Under the Esteemed guidance of

Dr. C Berin Jones

Professor



DEPARTMENT OF COMPUTER OF SCIENCE AND ENGINEERING

SHADAN WOMEN'S COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, Affiliated to JNTUH Aggregated by NAAC B++, Hyderabad)

KHAIRATABAD, HYDERABAD - 500004.

June-2025

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

Department Vision

1. To embrace the students with technical skill through best teaching learning process to become competent technocrats in the field of Computer Science and Engineering

Department Mission

1. To provide effective program by outcome-based education for students.
2. To offer pleasant environment to achieve brilliance in teaching skill, development process and new innovation.
3. To improve the student's skill with social awareness, Professional Ethics, Human value and problem-solving skills
4. To improve the skills and infrastructure facilities for faculties.

CERTIFICATE

This is to certify that the Dissertation titled “ **Real time multi digit handwritten recognition using Convolutional neural network**” is being submitted by “**Ayesha Siddiqua–22L51A0515**” in partial fulfilment of the requirements for the award for the degree of **Bachelor Of Technology in Computer Science and Engineering to Jawaharlal Nehru Technological University Hyderabad,**” is a record of Bonafide work carried out by them under my guidance and supervision during the academic year 2024 – 2025.

The results presented in this Dissertation have been verified and are found to be satisfactory. The results embodied in this report have not been submitted to any other university for the award of any other degree or diploma.

Dr. C Berin Jones,

Professor

Department of

Computer Science and Engineering,

Shadan Women’s College of
Engineering and Technology,

Khairatabad – 500 0004.

Dr. C Berin Jones,

Head of the Department

Department of

Computer Science and Engineering,

Shadan Women’s College of
Engineering and Technology,

Khairatabad – 500 0004.

Mini Project viva voce Examination held on _____

INTERNAL INCHARGE

EXTERNAL EXAMINER

DECLARATION

We hereby declare that the **Mini Project Report** titled “**Real time multi digit handwritten recognition using Convolutional neural network**” is a record of work done by us in the Department of Computer Science and Engineering, **Shadan Women’s College of Engineering and Technology, Khairatabad** affiliated to the **Jawaharlal Nehru Technological University Hyderabad**, in partial fulfilment of the requirements for the award of the degree of **Bachelor of Technology in Computer Science and Engineering**.

The results embodied in this thesis have not been submitted to this/any other University for the award of any other degree or diploma.

Ayesha Siddiqua – 22L51A0515

ACKNOWLEDGEMENT

The satisfaction and euphoria of successful completion of any work could be incomplete without mentioning the people who made it possible, whose constant guidance and encouragement crown my efforts with success.

We take this opportunity to express our grateful acknowledgement to **The Management**, Shadan Women's College of Engineering and Technology, Khairatabad for their kind encouragement and granting permission to do this major project.

We also express our thanks to **Dr. M. Subburaj, Principal**, Shadan Women's College of Engineering and Technology, Khairatabad for providing infrastructure and facilities.

We also express our thanks to **Dr. P Hima Bindu, Vice Principal**, Shadan Women's College of Engineering and Technology, Khairatabad for providing infrastructure and facilities.

We express our sincere gratitude to **Dr. C Berin Jones, Head of The Department CSE**, for his extended help, concern and persistent encouragement and support.

We wish to express our heartfelt thanks and sincere acknowledgement to our guide **Dr. C Berin Jones, Professor for** her concern and timely help to direct us for every move in this project.

We will be failing in duty if we do not acknowledge with grateful thanks to the authors of the references and other literatures referred in this project.

We finally thank our parents, friends and relatives who render their help directly or indirectly for the completion of this major project.

Ayesha siddiqua -22L51A0515