Proposal for financial support under the scheme

STUDENT PROJECTS SCHEME

On

A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION SYSTEM

SUBMITTED TO

TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

Sardar Patel Road, DOTE Campus,

Chennai-600025.Tamilnadu,India

SUBMITTED BY
MUTHAYAMMAL ENGINEERING COLLEGE(AUTONOMOUS)
Kakkaveri,Rasipuram,Namakkal District-637 408.Tamilnadu,India

TAMILNADU STATE COUNCIL FOR SCIENCE AND TECHNOLOGY

STUDENT PROJECT PROPOSAL

1. Name of the Student (s)   :

S.No	Name of the Student	E-Mail ID	Phone No.
1	BHARATHI	mail4bharu@gmail.com	8778824915
2	SUREKA	msureka0206@gmail.com	8754748180
3	DEVADHARSHINI	dharshinirajendran1031@gmail.com	8825954162
4	SWATHI	swathisavitha825@gmail.com	9789719924

2. Name of the Guide   :

   Department / Designation   :Assistant professor/CSE

   Institutional Address   :Muthyammal Engineering College,

   Kakkaveri(po),Rasipuram,637408

   Phone No. & Mobile No.   :

3. Project Title   : A Novel Method for Handwritten Digit Recognition System.

4. Sector in which your Project   :Engineering&Technology.
   proposal is to be Considered

5. Project Details   : (write up(max 3pages only)should be given for each item including justification for acquiring/fabricating equipment's/apparatus in the budget

     i. Introduction   iv. Project Structure

     ii. Objectives   v. Budget

     iii. TechnicalArchitecture   vi. Any other details

6. Has a similar project been carried   : No
   out in your college / elsewhere? If so
   furnish details of the previous

   project and highlight the
   improvements suggested in the
   present one

CERTIFICATE

This is to certify that **Ms.BHARATHI, Ms.SUREKA, Ms.DEVADHARSHINI, Ms.SWATHI**is a bonafide final year student of P.G. Science / U.G. Engineering / P.G. Professional courses of our college and it is also certified that two copies of utilization certificate and final report along with seminar paper will be sent to the Council after completion of the project by the end of May 2023.

Signature of the Guide   Signature of the HOD   Signature of the Principal/

                                                                                  Head of the Institution

                                                                                      (with seal)

A Novel Method for Handwritten Digit Recognition System.
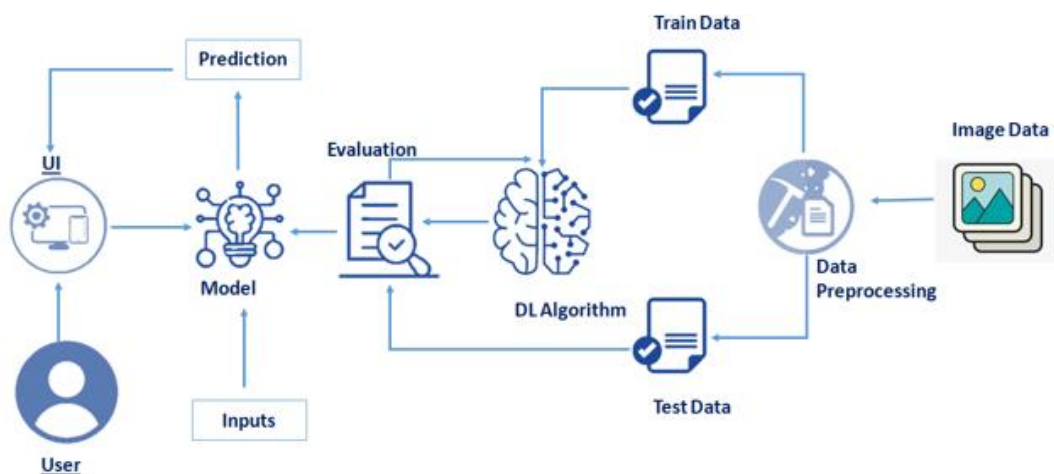
Introduction:

 Handwriting recognition is one of the compelling research works going on because every individual in this world has their own style of writing It is the capability of the computer to identify and understand handwritten digits or characters automatically .Because of the progress in the field of science and technology, everything is being digitalized to reduce human effort. Hence, there comes a need for handwritten digit recognition in many real-time applications.MNIST data set is widely used for this recognition process and it has 70000 handwritten digits. We use Artificial neural networks to train these images and build a deep learning learning model,Web application is created where the user can upload an image of a handwritten digit.This images is analyzed by the model and the detected results is returned on to UI.

Objectives:

- ❖ Know fundamental concepts and techniques of the Atrificial Networks and convolution Neural Networks.
- ❖ Gain a broad understanding of image data.
- ❖ Work with sequential type of modeling.
- ❖ Work with keras capabilities.
- ❖ Work with images processing tecniques.
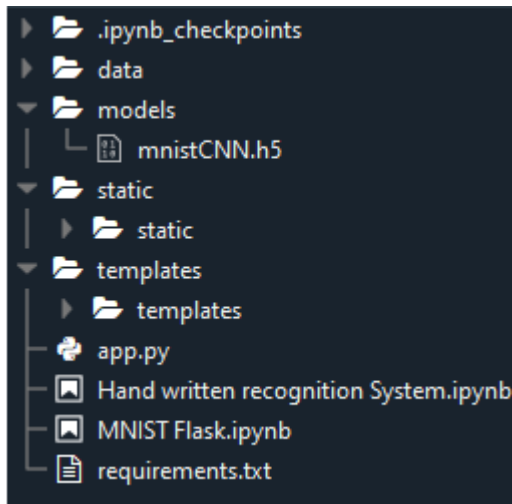- ❖ Know how to build a web application using the flask frameworks.

Technical Architecture:

Project Structure:

- ❖ We are building a Flask Application which needs HTML pages stored in the templates folder and a python scripts app.py for server side scripting.
- ❖ The model is build in the notebook Hand written recognition system .ipuyb.

- ❖ We need the model which is saved the model in this content is mnistCNN.h5.
- ❖ The static folder will contain js and css files.
- ❖ The template mainly used here are main.html and index6.html for show casing the UI.

WORK PLAN:

S.No	Process To Finished	Month
1.	Literature Review	August 2022
2.	Data Collection	September 2022
3.	Implementation	October 2022
4.	Software Requirements	November 2022
5.	Report Preparation	December 2022

BUDGET:

S.No	Requirements	Price(₹)
1	Software	1500
2	Travel	2000
3	Testing	3500
4	Materials purchasing	3000
	Total	10,000