A NOVEL METHOD FOR HANDWRITTEN DIGIT RECOGNITION

Hand written digit recognition, is the ability of a computer to recognize the human handwritten digits from different sources. In handwritten recognition digits, characters are given as input. The model can be recognized by the system. A simple Artificial Neural Network (ANN) has an input layer, an output layer and some hidden layers between the input and output layer.

🕐 **10 minutes** to prepare

👤 **1 hour** to collaborate

👥 **2-8 people** recommended

DESIGNED BY:

PAVITHRAYALINI P (TL)
MUTHUKOWSALYA R
PRIYADHARSHINI P
YAKSHITHA A

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Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

🕐 10 minutes

A. **Team gathering**
Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B. **Set the goal**
Think about the problem you'll be focusing on solving in the brainstorming session.

C. **Learn how to use the facilitation tools**
Use the Facilitation Superpowers to run a happy and productive session.
Open article →

Define your problem statement

What problem are you trying to solve? Frame your problem as a How Might We statement. This will be the focus of your brainstorm.

🕐 5 minutes

PROBLEM STATEMENT

Handwriting number recognition is a challenging problem researchers into this area for so long especially in the recent years. In our study there are many fields concern with numbers for example, checks in banks or recognizing numbers in car plate, the subject of digit recognition appears. A system for recognizing isolated digits may be as an approach for dealing with such application.

Key rules of brainstorming
To run an smooth and productive session

- Stay in topic.
- Defer judgment.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.

Brainstorm

Write down any ideas that come to mind that address your problem statement.

🕐 10 minutes

PAVITHRAYALINI P(TL)

Helps to reduce the mail sorting time	It improves the speed of reading digits	Helps to eliminate the human errors
It can be used to sort both incoming and outgoing mail	POSTAL MAIL SORTING	It can sort the mails using the pincode
Require minimum man power	Used to recognize handprinted digits	Helps to recognize the postal codes

MUTHUKOWSALYA R

Helps to recognize the data from image	It allows automated alerts while making the mistakes	Accuracy of real time analysis
Enhances the parking management	AUTOMATIC LICENSE PLATE RECOGNITION	Helps to reduce the errors which are made by mail
Enhanced security and safety	Helps to stop criminal behaviour	Easier management of resources

PRIYADHARSHINI P

Ensure effective and reliable approaches for recognition	Evaluated on self generated data set of bank cheque	Make banking operation easier and error free
A cheque processing system becomes commercially efficient when error rate is low	BANK CHECK PROCESSING	Complexity and effort will be less while processing cheque
Provides high fault tolerance and parallel architecture	Largely automate the system by reducing workload, time and cost per transaction	Processed with minimal human intervention

YAKSHITHA A

It can be used to store the data in efficient way	It tries to provide a error free solutions	It handles form processing in a large scale for fast
Recognize the data from the images	FORM DATA ENTRY	It helps to decrease the man power
Keeps the saved form open for further editing	Identifies information being incorrectly put into the system	It saves the form information

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Group Ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

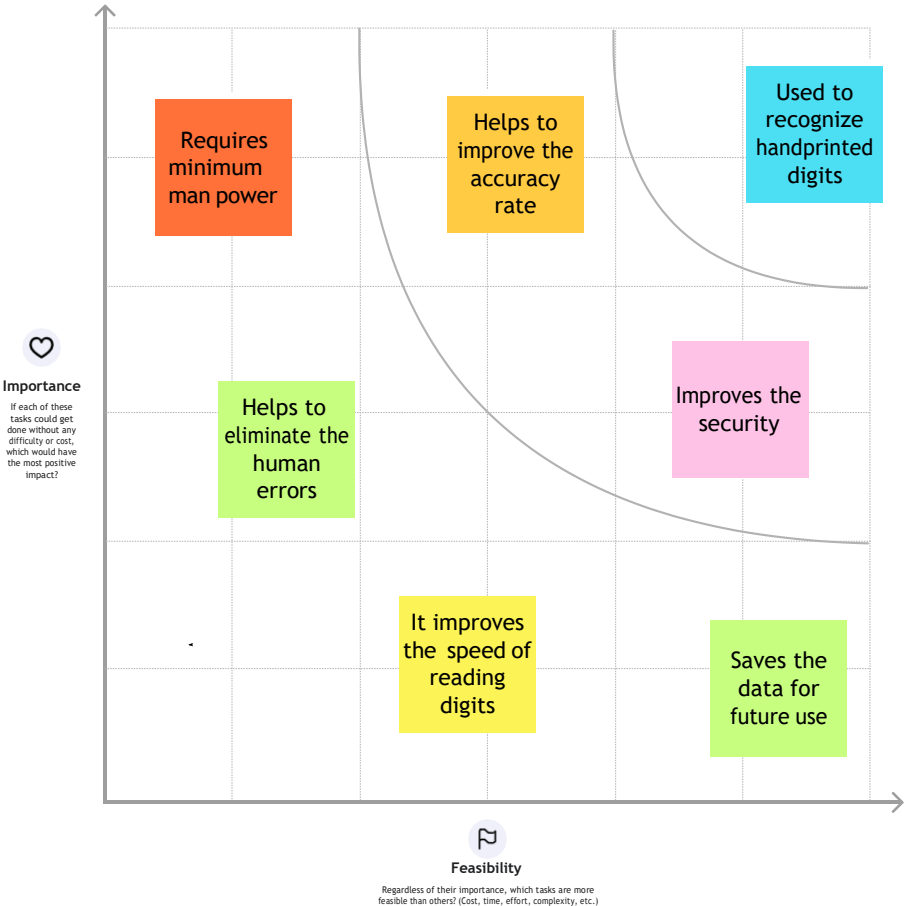| APPLICATION	RECOGNITION	SECURITY
Requires minimum man power	Helps to recognize the data from image	Saves the data for future
Helps to eliminate the human errors	Used to recognize handprinted digits	Helps to improve the accuracy rate
It improves the speed of reading digits	Ensure effective and reliable approaches for recognition	Improves the security
Processed with minimal human intervention		

Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

🕐 20 minutes

Importance
If each of these tasks could get done without any difficulty or cost, which would have the most positive impact?

Feasibility
Regardless of their importance, which tasks are more feasible than others? (Cost, time, effort, complexity, etc.)

Sticky notes on grid:
- Requires minimum man power
- Helps to improve the accuracy rate
- Used to recognize handprinted digits
- Helps to eliminate the human errors
- Improves the security
- It improves the speed of reading digits
- Saves the data for future use

After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

Quick add-ons

Share the mural
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.

Export the mural
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

Strategy blueprint
Define the components of a new idea or strategy.
Open the template →

Customer experience journey map
Understand customer needs, motivations, and obstacles for an experience.
Open the template →

Strengths, weaknesses, opportunities & threats
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
Open the template →

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