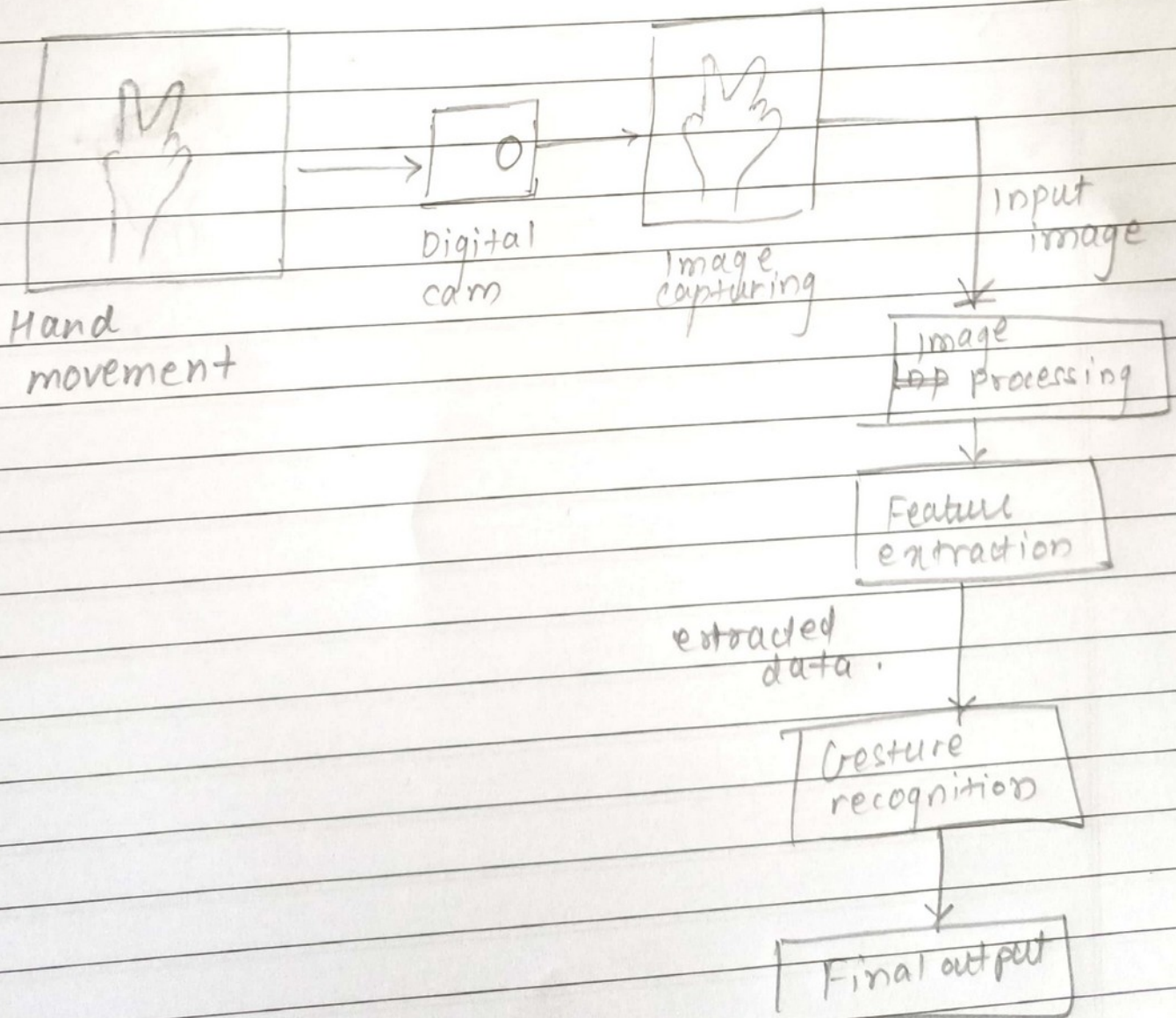


# SPPU-TE-COMP-CONTENT - KSKA Git

## Hand gesture recognition:

- Its ~~its~~ basic goal is to improve the interaction betn users and computers by making computer more receptive to user needs.
- HCI with computers is not just limited to keyboard, mouse, but also contains sensory features like gesture, speech, facial & body expression.
- Both non-vision & vision based approaches are used to achieve hand GR.
- Today we are going to use for 0-9 number.

Raw design.





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3] proposed Hand gesture Recognition System

This System Consists of two parts  
Back & front end

The backend consist of three modules.

→ Camera

→ Detection

→ Interface

1] This module is responsible for connecting & capturing the input from different types of image detector. & it sends image to detection module.

2] Detection module is responsible for image processing. The output from camera module is subjected to different image processing.

3] Interface module is responsible for mapping the detected hand gestures.



# SPPU-TE-COMP-CONTENT - KSKA Git

proposed  
method

Hand recognition

16 architecture

some step Hand Recognition System  
Computer

step 1

- ① Input is captured with camera
- ② Image is converted to grayscale → gray shield

bet<sup>n</sup> black and white.

step 2

- ① Noise Removal and smoothing of Image is done

good job

- ② Ostu and Inverted Binary thresholding is done.

निर्धारण.

step 3

- ① contour Extraction is done.
- ② Convex Hull is found along with convexity defects.

step 4

- ① Depending upon the convexity defects gesture are recognized.
- ② For gesture without expose of finger (like ~~first~~ fist and palm) haar cascading classifier is used

step 5

- Gesture action pair are mapped
- If powerpoint is open and webcam detects palm for 5 continuous frames dynamic gesture.

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Conclusion.

Hand recognition is a that allows devices to understand and respond to human movement

Hand recognition provide the most important means for non verbal interaction among people (ie deaf and dumb).