SRI RAMAKRISHNA ENGINEERING COLLEGE

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DEPARTMENT OF ELECTRONICS AND INSTRUMENTATION ENGINEERING

MINI PROJECT – REVIEW - I

MEAUSERMENT OF EYE PARAMETERS USING COMPUTER VISION

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Overview of the Presentation

- *Problem Statement*
- *Aim and Objectives*
- *Project Description*
- *Block Diagram*
- *Software Proposed*
- *Work done and Work to be completed*
- *References*

PROBLEM STATEMENT

- At present, frame measurements for spectacles tends to have a separate examined which is Manually done.
- Because of this conventional method practitioners sometimes struggle to provide accurate measurements.
- To get rid of conventional method of eye size measurement and without having any human intervene .
- Here we propose to use only camera along computer vision using Python to have accurate measurement.
- By this proposed method we avoid manual or human error/touch in measuring eye size

AIM & OBJECTIVES

Aim:

To automatically measure the eye co-ordinates to yield correct frames for correct face structure using computer vision library in Python.

Objectives:

- Automated eye size measurement with high precision.
- By this proposed method we avoid manual or human error in measuring eye size.
- Avoids close proximity.

- Manually done
- Human Errors
- Man-power

Traditional method

Essilor - eye partner

- High Cost
- Less in production

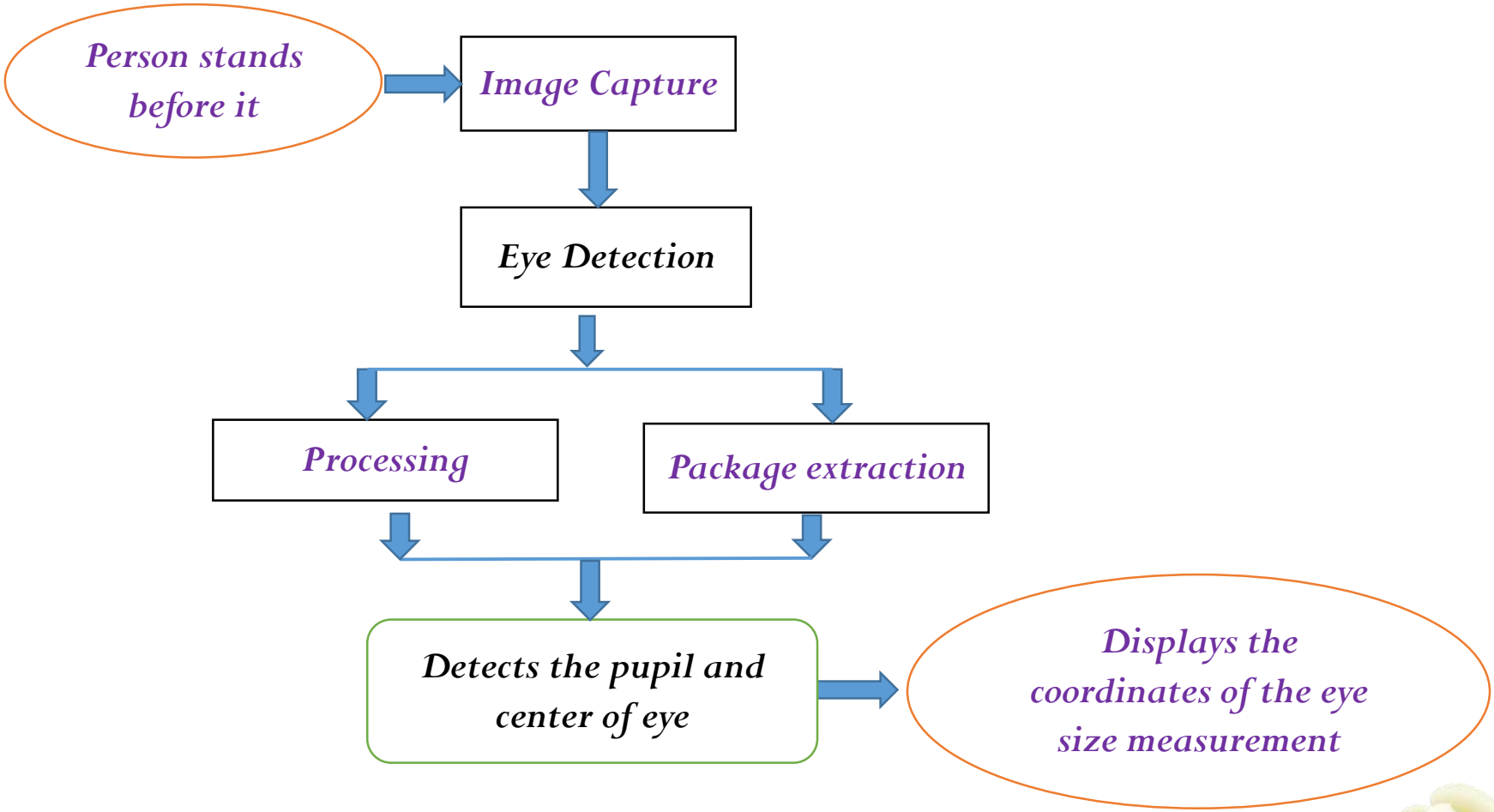
- Cost Efficient
- Accurate
- Reliable
- Easy

Our Product

PROJECT DESCRIPTION

- Eye size measurement calculation is made easier by using Python's computer vision instead of traditional methods like The boxed lens (boxing) system.
- It gives the precise position of a patient's eyes in relation to their lenses—information essential to crafting corrective lenses and sunglasses.
- This proposed method allow opticians to take measurements while respecting the safety requirements imposed by the context of fighting the COVID-19 epidemic
- Saves time and reduces proxies.

Block Diagram



Measurement of eye size Using computer vision

SOFTWARE PROPOSED

- ***IDE Used:***
  - ***PyCharm***
- ***Language Used:***
  - ***Python***
- ***Python Libraries Used:***
  - ***Open CV(Computer Vision)***
  - ***Numpy***
  - ***Dlib***

Work Done And Work To Be Completed

Work done

Month	
Feb – 1st Week	❖ Worked on Project selection and discussion
Feb – 2nd Week	❖ Worked on finalizing idea for mini project
Feb – 3rd Week	❖ Collected journal papers and other sources
Feb – 4th Week	❖ Literature survey and analysis

Work to be completed

Month	
Mar – 1st Week	❖ Design of the project
Mar – 2nd Week	❖ Software development
Mar – 3rd Week	❖ Simulation and finding results
Mar – 4th Week	❖ Documentation of project work

References

JOURNAL

- https://www.opticianonline.net/cet-archive/5400
- https://qa.essilorusa.com/eye-care professionals/visioffice

MAGAZINES

- https://www.activisu.com/en/our-solutions

THANK YOU