

# Development of Human Skeleton Based Identity Authentication System



## Introduction

- Identity authentication system based on the human movement or motion
- Method : Markerless Motion Capture

## Problems

- Most people wear masks when they go out, and face recognition has become more difficult than before
- Fingerprints are reproduced through photographs or smooth surfaces
- Face recognition is cracked by scammers

## Main Idea

- Data collect in skeleton diagram form
- Automatic identity recognition using Python
- AI skeleton diagram with MediaPipe

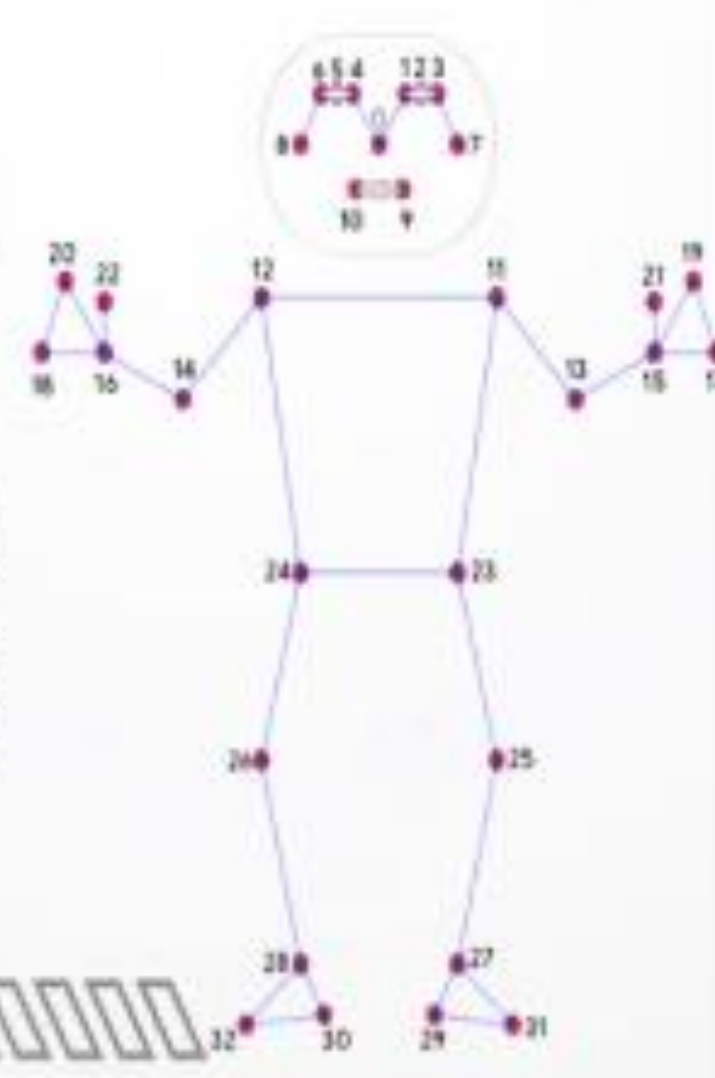
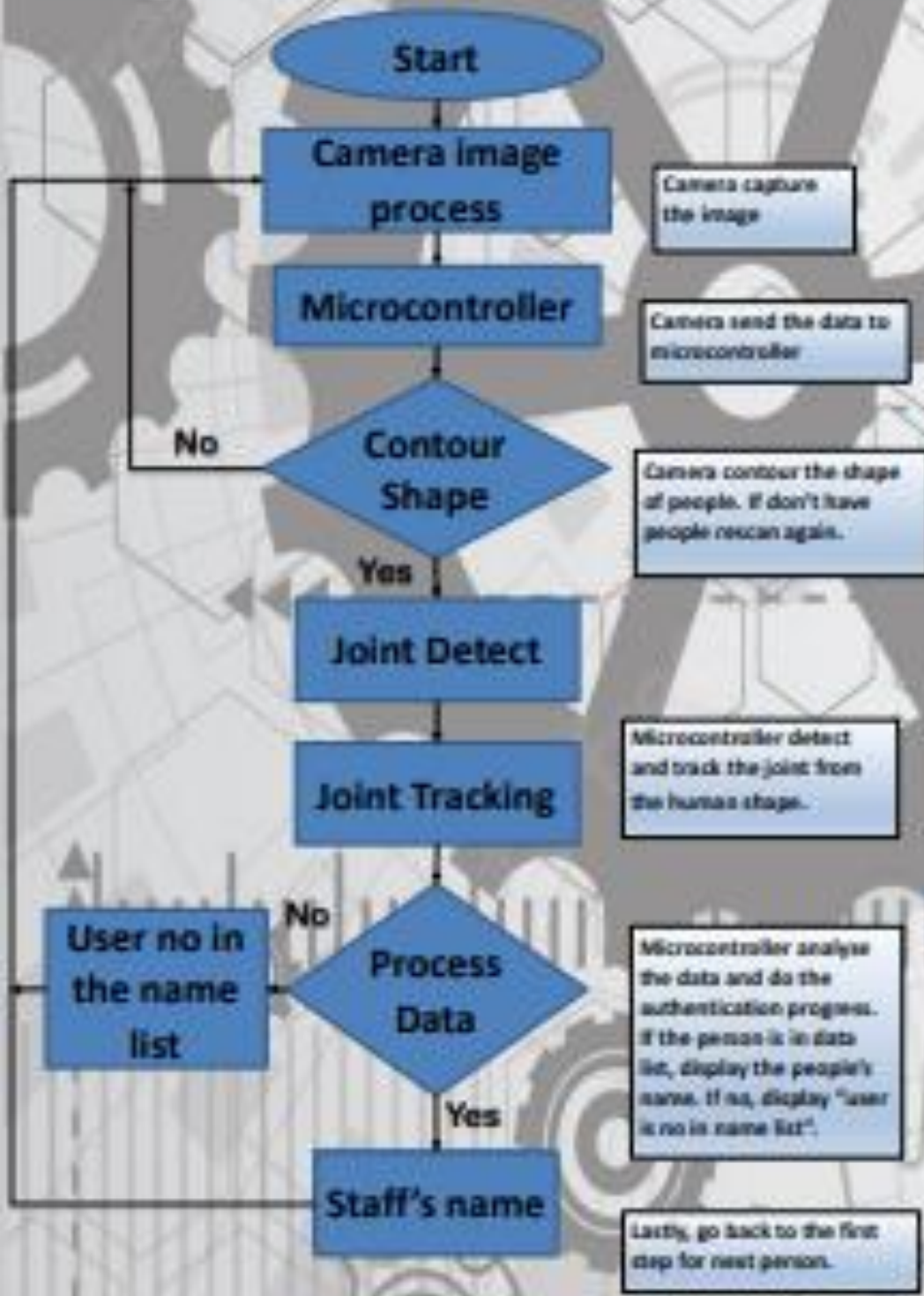
## System Architecture



Computer is used as the overall control processor. The camera will capture the input data which is the walking posture of the users, and the screen will display the output result (user's id).

## Description

- New idea for identity authentication
- Develop an identity authentication system that using in indoor area
- To analyses and validate the movement using the system designed
- A system designed by using Machine Learning



## Conclusion

When the number of landmarks increases, the accuracy of the system will also increase. Because the more landmarks, the better the characteristics of each person can be reflected.

## Future Work

- Include the IOT function for the system
- Include more landmarks for user.
- Include key point extract function

