SATHYABAMA
INSTITUTE OF SCIENCE AND TECHNOLOGY
Deemed to be University
Declared as category 'A' University by MHRD, Govt. of India
Jeppiaar Nagar, Rajiv Gandhi Salai, Chennai – 600 119, Tamil Nadu. India.

CRIMINAL IDENTIFICATION AND CRIME DETECTION SYSTEM

Project Supervisor:

Dr. A.Velumurugan,M.E.,Ph.D.,

Team Member: 1. P. Neha Teena Rajee

Reg.No : 37110501

2. N.Rishitha

Reg.No : 37110490

PRESENTATION OUTLINE

- Introduction
- Motivation
- Literature survey
- Objectives
- System Architecture
- Module Implementation
- Results and Discussions
- Conclusion & Future work
- References
- Publication
- Q&A

INTRODUCTION

- **Crime prevention and criminal identification are the primary issues before the police personnel, but the availability of police personnel is limited.**
- **With the advent of security technology, this project aims to complement the programs and software that are used to detect crime, save and store the identity and the facial features of the criminal.**

PROBLEM STATEMENT

To devise a system that aims to identify criminals, detect real time crime and store criminal information in a database.

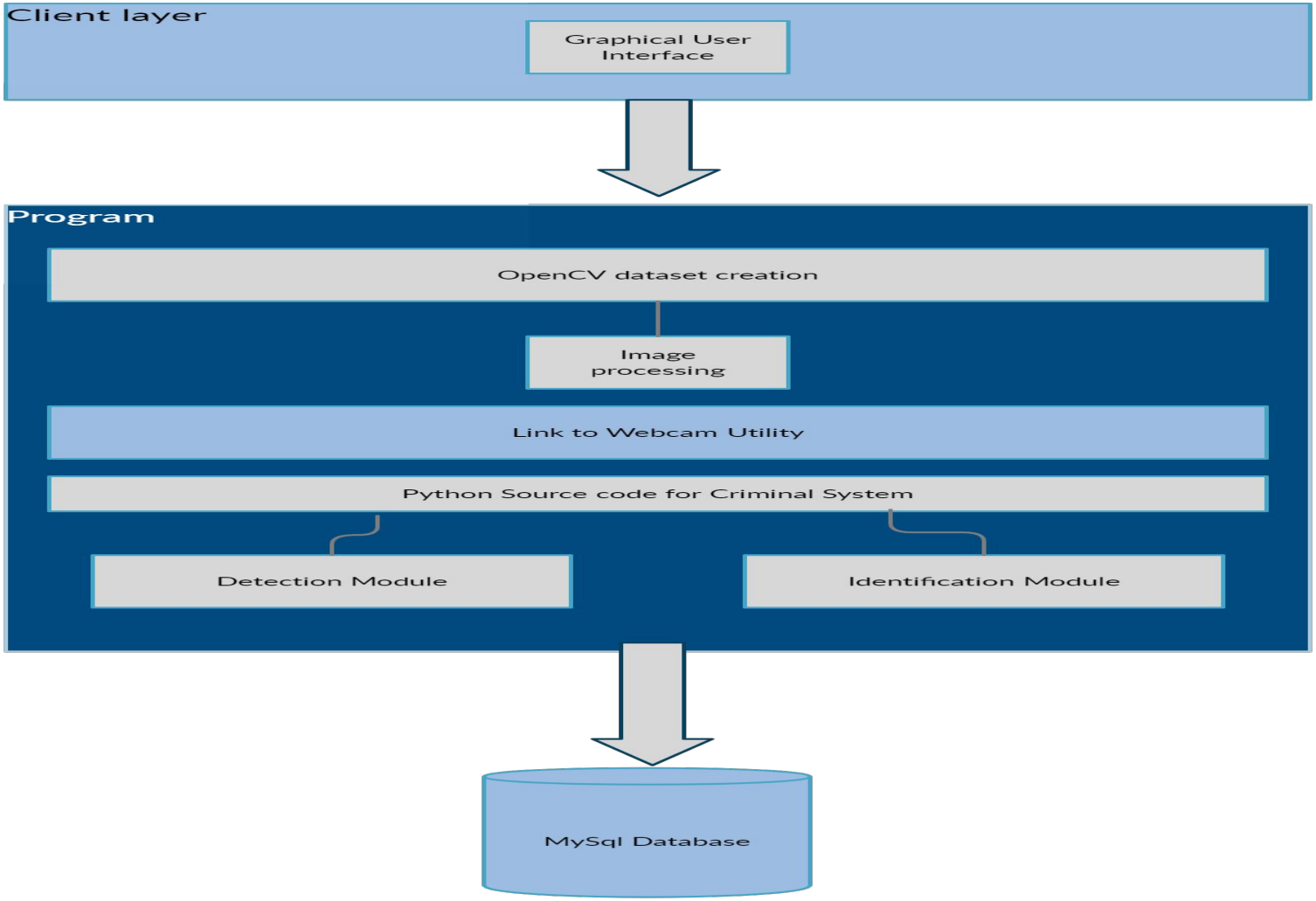
LITERATURE REVIEW

AUTHOR	YEAR OF PUBLICATION	DESCRIPTIONS	PROS	CONS

OBJECTIVES

- Facial Recognition of criminals
- Real time crime identification
- Criminal Database

ARCHITECTURE DIAGRAM



PROJECT IMPLEMENTATION

- Programming Language used-Python
- Software requirements- Python IDE, MySql
- Hardware Requirements-
- CPU configuration :Intel Pentium 3 or later
- RAM capacity: 256MB or above
- Library used: OpenCv
- Algorithm used: Haar-Cascade Classifier.

METHODOLOGY

- Graphical User Interface (GUI) will be implemented using tkinter package in python.
- OpenCv library is used for dataset creation. Real time video is captured and analyzed for crime using .xml files.
- MySql database will hold all crime related information. The user is prompted to upload relevant information that can then be processed.

RESULTS AND DISCUSSION

STAGE	MODULE	COMPLETION STATUS
FIRST	CRIMINAL DATA UPLOAD	DONE
SECOND	CRIMINAL DATABASE	LINKING STAGE
THIRD	REAL TIME DETECTION	YET TO BE COMPLETED
FOURTH	CRIME DETECTION	YET TO BE COMPLETED

- All modules are successfully a part of the Graphical User Interface

CONCLUSION

- This criminal identification system will implement face detection, face identification, criminal database, graphical user interface, real time video probing and criminal file uploading.
- The future scope of this project also includes incorporating this along with other notable criminal security software, and to broaden its range and scope.
- Advanced Machine Learning algorithms can contribute to a more accurate output.

PUBLICATION

- Paper details are being updated from time to time with accordance to project status.
- Paper is yet to be published.

REFERENCES

[1] ImageNet Classification with Deep Convolutional Neural Networks, Alex Krizhevsky, Ilya Sutskever, Geoffrey E Hinton, NIPS 2012.

[2] Going Deeper with Convolutions, Christian Szegedy, Wei Liu, Yangqing Jia, Pierre Sermanet, Scott Reed, Dragomir Anguelov, Dumitru Erhan, Vincent Vanhoucke, Andrew Rabinovich, 19-Sept-2014. [3] Learning Hierarchical Features for Scene Labeling, Clement Farabet, Camille Couprie, Laurent Najman and Yann LeCun, IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013.

[4] Learning Convolutional Feature Hierachies for Visual Recognition, Koray Kavukcuoglu, Pierre Sermanet, Y-Lan Boureau, Karol Gregor, Michaël Mathieu and Yann LeCun, Advances in Neural IP Systems (NIPS 2010), 23, 2010.

[5] Graves, Alex, et al. “A novel connectionist system for unconstrained handwriting recognition.” Pattern Analysis and Machine Intelligence, IEEE Transactions on 31.5

CRIMINAL IDENTIFICATION AND CRIME DETECTION SYSTEM

Question and Answers

THANK YOU