MAKERERE UNIVERSITY

COLLEGE OF COMPUTING AND INFORMATIC SCIENCES

DEPARTMENT OF COMPUTER SCIENCE

COURSEWORK: RESEARCH METHODOLOGY(BIT 2207)

LECTURER: MR.ERNEST MWEBAZE

TOPIC: MOBILE VISION

.

COMPILED BY: NAMUYOMBA ANGELLA ZERIDA

STUDENT NUMBER : 215009156

REGISTRATION NUMBER:15/U/10595/PS

Signature .....
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1 TOPIC

Literature review on Mobile Vision.

1.1 INTRODUCTION

[1]The Mobile Vision API provides a framework for finding objects in photos and video. The framework includes detectors, which locate and describe visual objects in images or video frames, and an event driven API that tracks the position of those objects in video. Currently, the Mobile Vision API includes face, barcode, and text detectors, which can be applied separately or together.

1.2 BODY

The mobile vision package includes a framework of common base functionality and sub packages for specific detector implementations. These include face detection concepts, bar codes overview, text overview, multiple detectors.[2]

1.2.1 Face Detection

Face detection enables the user to find out about how face detection works. This can include detection of a human face in an image or video,detection of a land mark ie a point on a detected face such as an eye,nose or mouth.[3]

1.2.2 Bar code detector

The barcode detector enables the user to learn more about the types of bar codes the vision API can detect and parse.[4]

1.2.3 Text Overview

This enables the text API to read blocks of text using a mobile device's camera.

References

[1] K. Pulli, A. Baksheev, K. Kornyakov, and V. Eruhimov, "Realtime computer vision with opencv," *Queue*, vol. 10, no. 4, p. 40, 2012.

[2] A. Ess, B. Leibe, K. Schindler, and L. Van Gool, "A mobile vision system for robust multi-person tracking," in *Computer Vision and Pattern Recognition, 2008. CVPR 2008. IEEE Conference on.* IEEE, 2008, pp. 1–8.

[3] T. Soyata, R. Muraleedharan, C. Funai, M. Kwon, and W. Heinzelman, "Cloud-vision: Real-time face recognition using a mobile-cloudlet-cloud acceleration architecture," in *Computers and communications (ISCC), 2012 IEEE symposium on.* IEEE, 2012, pp. 000 059–000 066.

[4] H. Qu and Y. P. Wang, "Hand held bar code readers or mobile computers with cloud computing services," Sep. 2 2014, uS Patent 8,820,630.