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BASED ON LUCAS-KANADE ALGORITHM OBJECT DYNAMIC IDENTIFICATION APPLICATION

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Abstract

In this paper we present a novel approach of object identification and tracking by using a differential method for optical flow calculation. It was developed by B. D. Lucas and T. Kanade [1]. The proposed method consists of three steps which can be executed in real-time. As a first step the 2D vector of optical flow is calculated by Lucas-Kanade method [1]. Then calculate binarization of the optical flow vector field to produce regions that are moving. Finally, program divides regions of objects, using differences in speed and mark them different colors.

Contents

Introduction

1-2 pages adssdadas

Main body

5 pages

Conclusion

1 pages

Bibliography

[1] Takeo Kanade Bruce D. Lucas. *An Iterative Image Registration Technique with an Application to Stereo Vision*. Computer Science Department Carnegie-Mellon University, Pittsburgh, Pennsylvania 15213, 1981.

[2] Chris Harris. *A COMBINED CORNER AND EDGE DETECTOR*, 1988.