IMPLEMENTATION OF STEREO VISION ON TWO-DIMENSIONAL MOTION ON AIR TABLE FOR PHYSICS LABORATORY IN SWISS GERMAN UNIVERSITY

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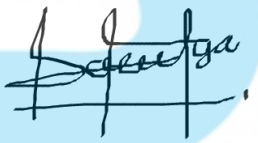

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ABSTRACT

IMPLEMENTATION OF STEREO VISION ON TWO-DIMENSIONAL MOTION ON AIR TABLE FOR PHYSICS LABORATORY IN SWISS GERMAN UNIVERSITY

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A process in the making of a physics laboratory experiment with a technology by simply planting a stereo vision camera to detect object behavior in order to compile some random data according to the base knowledge of physical quantities of two dimensional of a motion. Data is processed by configuring a class of image processing known as computer vision. All stream data is put together into a pipeline of vision system. The arrangement of the output in disparity and depth mapping are then filtered to qualify some great quality also by thresholding to subtract unwanted processed images. Finally, a set of data captured will be determined as one expected algorithm by the system of detect and tracking object system. The two-dimensional motion will then be a target for the physics calculation.

Keywords: Stereo Vision, Physics Experiment, Depth and disparity, Image Processing, Computer Vision

DEDICATION

I dedicate this thesis to my family, my advisor, all my friends for their willingness to help and support to finish this thesis, and my beloved country Indonesia.

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