DECLARATION

We hereby declare that this submission is our own work and that, to the best of our knowledge and belief, it contains no material previously published or written by another person nor material which to a substantial extent has been accepted for the award of any other degree of the university or other institute of higher learning, except where due acknowledgement has been made in text.

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ABSTRACT

The main objective of this project is to develop an application of 3D Image Reconstruction using Stereo images using interactive MATLAB software. The application of finding actual distance between two real point coordinates is a part of image processing.

Image processing is any form of signal processing for which the input is an image, such as photographs or frames of video; the output of image processing can be either an image or a set of characteristics or parameters related to the image. 3D Reconstruction is a computer technology that determines the various features of stereo camera as well as that of its images. Here we find the intrinsic and extrinsic features of the camera and then calibrate it .After this rectification of the images is done and a disparity map is thus drawn. Finally by user interaction the distance between two real point coordinates is calculated. 3D Reconstruction of stereo images is used in various applications like depth estimation, , such as Computer Aided Geometric Design (CAGD), Computer Graphics, Computer Animation, Computer Vision, medical imaging, computational science, Virtual Reality, digital media, etc.

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