

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELGAUM**



Final Year Project Report
on
“3D OBJECT TRACKING”

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Bachelor of Engineering
In
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ABSTRACT

Multiple object tracking in indoor and outdoor scenes is an important task of vision based systems such as Surveillance Systems, Human Computer Interactions, Traffic Monitoring at signal point, Vehicle Navigation, Action Recognition, Navigation of autonomous robots etc. In the area of object tracking there are some existing techniques such as: mean shift algorithm and cam shift algorithm. Mean shift algorithm is not good for outdoor scenes whereas cam shift algorithm, which is an improvement of Mean shift algorithm, is not good for multiple object tracking . Under occlusion of objects the above said algorithms are not effective and hence Kalman Filter Algorithm for multiple object tracking under occlusion, is considered. In this project an attempt has been made to eliminate some of the existing problems in multiple object tracking .The project proposes a real time object tracking system, which is capable of tracking objects in any given video sequence .The algorithm thereby developed has been tested for indoor and outdoor scenes and performance of the algorithm is seen to be quite satisfactory.