

Tsahi Glik

PERIPHERAL VISION

Abstract

Armored vehicles usually have a very limited visual view angles and need a way to increase their operator's orientation ability in the immediate situation without adding any risks. In this project, described is an application for creating peripheral view from a small number of video cameras, positioned around the vehicle. In this application the operator will have a real-time visual view of what is happening outside the vehicle in any direction he will choose. The application include a high performance automatic registration algorithm and techniques for creating "Virtual views" and panorama views without the a priori knowledge of camera positions and camera intrinsic parameters.