Vehicle License Plate Recognition using GPU Parallel Computing

Abstract

This work is based on the recognition of vehicle license plate uses Scale-Invariant Feature Transform or SIFT. Speed and accuracy of the system are analyzed for the system's effectiveness and accuracy. Parallel computing uses NVIDIA graphics processing unit (GPU) to accelerate computation process with C++ programming and CUDA along with OpenCV libraries. Results show that the system is accurate for most resolutions, and parallel computing does really speedup the system for up to 6.58x.