

Automatic Number Plate Detection and Recognition System

Zuhaib A. Shaikh

Supervised by:

Dr. Umair A. Khan, Assistant Professor, CSE department, QUEST, Nawabshah

Co-supervised by:

Prof. Dr. Nisar A. Memon, Chairman CSE department, QUEST, Nawabshah

Abstract:

License plate detection and recognition has become of significant interest since the number of vehicles has increased substantially. Therefore, the need to perform automatic toll collection, traffic law enforcement, parking lot access control, etc. has also been increased. The proposed scheme discusses a license plate detection and extraction method which comprises three steps: 1) Felzenszwalb's Histogram of Orientated Gradient method to extract the license plate's features and feeding those to train Structural Support Vector Machine for training detector, 2) applying trained detector for detection of license plate from a scene, and 3) extraction of the text/numbers from the detected region using image enhancement techniques and Tesseract-OCR. This proposed scheme results in a reliable technique having higher accuracy with reasonable computational requirement.