The diploma thesis deals with analysis and design of an automatic system for a single-image license plate (LP) recognition. Input data came from a system for car speed measurement on the roads in the emirate of Abu Dhabi (the United Arab Emirates). A goal is to recognize a numeric identi cation code on a LP and a type of the LP. In details there are discussed individual parts of the system for LP recognition. A particular stress is put on segmentation and grouping of individual characters to be able to utilize specific information on the LP from Abu Dhabi during the character recognition. The diploma thesis compares several methods for character recognition - a minimum distance classi er, feed-forward neural networks and hidden Markov models. The methods (and some modifications of them) are tested on real data and compared according to the percentage of correctly recognized digits (at fi rst the digits were manually classi ffied). Wrongly recognized LPs are undesirable. Instead in some cases it is better to mark the
LP as "unrecognized". That's why there were introduced sophisticated tests for recognized digits reliability veri cation. A summary of our own results is included.