

## ***Abstract***

*The development of information technology makes everything that is usually done by human can be improved by using the latest technology. One simple example is license plate admission in toll gate and parking lot entrance which is commonly still using human resource to input numbers in those plates. When the vehicle density start increasing, limited human pace can produce inconvenience such as traffic jam and long vehicle queue. In addition, rapidly-tiring manpower can lower productivity. Therefore, a system which can recognize characters in license plate is needed, with the aim of reducing human work and increasing productivity.*

*In this final task, a system which can recognize characters in license plate is developed using fuzzy neural network concept. In this system, artificial neural network will be used in initial recognition process, where characters will be divided into certain groups. Furthermore, fuzzy system will be used for reasoning ambiguous input (such as alphabet C and G) so that the precision will be better. Testing result shows that the average level of accuracy of characters per plate could measure up to 92.14%, and accuracy of the output plate that is successfully recognized compared to the input could reach 80%.*

**Keywords:** *character, fuzzy neural network, license plate, matrices, recognition.*