

**Kata Kunci:** *LISTIE, Plat nomor, Pengenalan pola, Ektaksi ciri diagonal, Feedforward, Bacpropagation*

### ***Abstract***

Computerized vehicle identification number plate car license plate especially at this time it is very necessary in the real world, for example, to identify license plates that enter and exit the parking lot. Look if done manually by the officer in input the number plate is considered less effective and efficient in terms of time so that it can lead to the rather long queue. To the authors make a number plate identification system specifically for car number plates which are named LISTIE. Of course, with this system can facilitate human activities in order to be more effective and efficient especially in terms of time.

In making this LISTIE has several processing stages, namely preprocessing, perkarakter segmentation, feature extraction and learning algorithms. But before that there is the process of collecting and extracting characteristic perkarakter database of sample characters that have been obtained. For feature extraction method used in this thesis is diagonal feature extraction method that is believed to derive a pattern characteristic of the well as it can accommodate more information. Expected to use this diagonal feature extraction method will get the data information clearer and accurate in distinguishing traits between the letters with each other.

While the learning algorithms used in this thesis is algoritna feedforward neural network with a groove Bacpropagation pullback. This algorithm is used to map the characteristics of extraction results in a diagonal to the target output. Besides the learning method is the most flexible and well tested in training a neural network. In this thesis, used a data sample of 108 characters, and 15 plate intact sebagai test data, with the fastest learning time is 00.00.35.69 and the accuracy of the test data error handle reaching 0.0426669.

**Keywords:** *LISTIE, plate number, pattern recognition, extraction characteristic diagonal, Feedforward, Bacpropagation.*