

## Performance of various training algorithms on scene illumination classification

### ABSTRACT

The increasing number of training algorithms along with their convincing results will make this question that which algorithm will be more efficient. This study aims to perform some widespread tests on some well-known training algorithms (Levenberg-Marquardt, Resilient back propagation and Scaled conjugate gradient) to evaluate their performance for scene illumination classification. The results presented by this research can provide a reliable guide line for choosing the most appropriate training algorithm depends on the problem specification. The results of this study select the LM training method with the accuracy of 94.41% as the most accurate and RP as the most quick method with response time of 0.426 s.

**Keyword:** Neural network; Scene illumination classification; Training algorithms