# *Abstract*

*Production demand on GT3 tires producted by PT. Goodyear Indonesia Tbk. have high uncertainty factor of demand, so it is difficult to predict how many number of product must be producted for the next time period. Because the production demand data have non-linear pattern then neural networks is used to predict the number of demand production for the next time period.*

*Neural networks training algorithm used is resilient propagation. Weight-elimination added into resilient propagation algorithm to eliminate neural networks weights which can reduce performance of networks to do generalization.*

*Process in the system are networks training and validation with resilient propagation algorithm to find the best network architecture, networks training and validation with resilient propagation algorithm that have added weight-elimination method to find the best weight-elimination parameter and network testing to find out performance of networks to recognizing new data.*

*From the experiments, adding weight-elimination method into resilient propagation algorithm gave better performance in networks training, gave smaller networks error result, than resilient propagation algorithm without weight-elimination.*

**Keywords** *: neural networks, adaptive learning rate, weight-elimination, time series, prediction.*