Abstract

Traffic jams is a problem that has always felt road users, especially for people in big cities, such as Bandung. Traffic jams have bad impacts for anyone. Traffic jam resulting in huge losses for individuals and groups. So we need a solution to decrease traffic jams. The solution offered is a long approach to the calculation of the duration of time that an efficient traffic lights, so as to reduce the excessive jams occurs and a smooth flow of vehicles.

In this final task, suggestions was made traffic light control system is adaptive, the system uses recurrent neural networks to solve the problems that are uncertain. The design of recurrent neural networks with genetic algorithm search (AG) based on data obtained from the real data on the road.

Based on the observations that have been done, get the best designs in the form of weights and connections of neurons. The highest accuracy in the system compared with a fixed time show that 90,08% for learning and 87,191% for testing are good enough for setting the duration of the adaptive traffic lights.

Keywords: *prediction, duration of traffic lights, adaptive traffic lights, neural networks, genetic algorithms*