

ABSTRACT

Artificial Intelligence is a part of computer science in which the machine are designed to be able to do the job like a human doing. A machine should be given by knowledge and inference to solve problems like a human does. One of kind problem solving techniques in Artificial Intelligence is Learning are Decision Tree Learning, Artificial Neural Networks and Genetic Algorithms. In this study (final project) the author choose Genetic Algorithms as an Artificial Intelligence that will be applied in the system. Genetic algorithms is an optimization algorithm, the use of this algorithm will be applied on a system traffic light system. The design of a system based on the performance of conventional traffic lights who cannot work optimally yet because it gives the same duration in all traffic conditions that often made a congestion. That algoritm will be testing in R.A.A Marta Negara Bandung and compared with conventional traffic light. Based on the results of the study, Genetic Algorithm who was designed at the intersection of R.A.A Marta Negara Bandung could adding the total vehicles in the intersection as much as 65 vehicles/hour in one period.

Keywords : Artificial Intelligence, Genetic Algorithms, Traffic Light System.