

Since their existence, human beings are always in conflict with the nature that surrounds them. But with their willingness and determination, people have succeeded in overcoming the aforementioned conflicts by getting inspired from other creatures which have adopted certain lifestyle and behavior that would help them to live and make life easier. For example, it is from how birds build their nests and how life is organized in kingdoms of bees and ants that people extracted some social and organizational skills to help themselves overcome their daily difficulties. After discovering the huge capabilities of human minds, people started to make of their basic concepts and understandings artificial minds. Furthermore, people started to think of ways to maintain things that are strong and durable. For this reason they started to model these target attributes in the form of genes (chromosomes) in the chromosome so that they can be kept from one generation to another until the removal of all things that are not appropriate to the planned needs. In this context, the focus of our work, where we have set up the control system of a system called the DTS-200 and the hybridization of artificial neural networks and genetic algorithms. Based on the DTS-200 system we have used neural networks, which are considered as the most approximate global solutions for neural models. To find this neural model, we used genetic algorithms in the exploration mechanisms of the neural networks, in that it modeled the factors as the square difference between the real and the Neural model. We used in this algorithm a set of individuals where everyone represents a special structure of the device carrying the genes used in the neural network. To speed up the process of exploration, we have crossed the genetic algorithm with the Newton method. The obtained neural model was applied for the detection of defects in this organ, in the case of normal operation we count the intervals of confidence, if the standard deviation of the signal is outside of these intervals during the operation; we can deduce that there is an imbalance in the system, which we have to locate. To locate the defect we used another neural network which is crossed with the genetic algorithm in the same way as the first, and every output of the neural outputs represents a certain malfunction