

In the article it is told about the device of automatic diagnostics of electromechanical systems, which consists of two subsystems: a subsystem of acting data transformation and a subsystem of data processing. The first carries out data reception and their processing (distribution of data, estimation of parameters and their representation) while the second finds out failures (under the Artificial Neural Network help) which can occur in an electromechanical system and gives the recommendations for their elimination. However, the investigation of three Neural Networks have been proceeded to choose the most effective diagnostic failure Neural Network. In addition, to give the improve diagnostic, it is important to do the correct choice of parameters. According to made analysis stator current, rotation speed and acting signals are the most important parameters to be considered describing failures influence (their changes are essentially more in the defect occurrence case) and their physical values can be measured easily with the sensor