

Method for neuro-fuzzy inference system learning for ICE tests

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Abstract

© 2018, Institute of Advanced Scientific Research, Inc. All rights reserved. The application of an intelligent model for tuning an automated test system for diesel engines is considered. A neuro-fuzzy network has been designed to produce a control effect on the diesel. A technique for designing a knowledge base for controlling the operating modes of a diesel engine during its testing has been developed. In the life cycle of products, including internal combustion engines (ICE), a significant place is occupied by various technological tests of both individual units and the engine as a whole. Modern requirements to constant increase of technical level of let out designs result in that the share of expenses for carrying out of tests of diesel engines at creation of new samples all more increases. Especially large these costs become when the levels of automation of production and scientific research work do not match. In connection with this automation and mechanization of technological trials is one of the main tasks of increasing the technological level of production and the quality of the parts produced.

Keywords

Automated test system, Automated test technology, Diesel engine, Fuzzy rules, Information technology, Knowledge base, Neuro-fuzzy network, Stand, Test

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