عنوان مقاله:

Predicting the amount of Particle Quantifier in Oil by ANFIS

محل انتشار:

ششمین کنفرانس ملی نگهداری و تعمیرات (سال: 1389)

تعداد صفحات اصل مقاله: 16

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خلاصه مقاله:

Lubricant analysis programs evaluate the condition of the circulating fluid to determine if the oil is suitable for further use or not. Several methods are used to analyze oil condition and contamination. These include spectrometry, viscosity analysis, dilution analysis, water detection, Acid Number assessment, Base Number assessment, particle counting, and microscopy. In this paper, the amount of particle quantifier of engine oil of Universal 665 tractor was predicted by using calculating the amount of Fe, Cu, Sn and Cr in oil analysis. At First, Multiple linear regression was implemented that show which material in oil analysis have the correlation with the amount of PQ.A Linear model base on regression was presented Then a Sugeno-type fuzzy inference system based on fuzzy c-means clustering was generated. In Matlab, Neural Network was used to optimize the parameter of fuzzy set. Results show that ANFIS have .the best coefficient of determination about 0.9

کلمات کلیدی:

Oil Condition Monitoring, Universal 665 Tractor, Fuzzy C-Means Clustering, Linear Regression

لینک ثابت مقاله در پایگاه سیویلیکا: