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مقاله کامل پوستر

A stochastic approach to modeling and optimization of EDM machining parameters using Genetic Algorithm

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Abstract

Electrical discharge machining (EDM) is one of the most important non-traditional machining processes. The important process parameters in this technique are discharge pulse on time, discharge pulse off time and gap current. The values of these parameters significantly affect such machining outputs as material removal rate and electrodes wear. In this paper, the mathematical relationships between input and output parameters of EDM are established using regression method and the best set of models is chosen. Genetic Algorithm is then used to optimally determine input parameters levels in order to obtain any desired set of outputs.

Keywords: EDM- Regression Modeling- Optimization- Genetic Algorithm