A REVIEW ON OPTIMIZATION OF PROCESS PARAMETERS ON DRY ELECTRIC DISCHARGE MACHINING FOR AL-SIC MMC MATERIAL USING HYBRID MODELLING

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ABSTRACT

Dry EDM is a modification of oil EDM Machining process were liquid dielectric is replaced by gaseous dielectric medium. The main aim is to study the effect of Percentage of Silicon carbide particles, Gap voltage, discharge Current, Pulse on time, Spindle speed, air pressure on response such as Material Removal rate (MRR), Tool Wear Rate (TWR) and Surface Roughness (Ra).Influence of Silicon Carbide Particles, Gas Pressure, Spindle speed are also discussed resulting in Finding the optimum conditions of machining parameters using Genetic Algorithm (GA) and Artificial Neural Network (ANN) called as Hybrid Modelling.

KEYWORDS: Dry EDM, % SiC, MRR, Ra, TWR, GA, ANN