Abstract Details

Title: Methodology And Study Of Optimization Technique: Taguchi Method

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Abstract: In Manufacturing Sector For Efficient And Quality Of Work, Various Optimization Techniques Are Used In Industries. Out Of Them, Taguchi Method Of Optimization Gives A New Concept To A Term "Quality". The Main Advantage Of Taguchi Design Of Experiment Is That It Will Give Optimal Solution In Combination Of Input Process Parameters With Less No Of Trials Of Experiments. In This Research Paper, The Main Focus Is Laid On The Concept And Methodology Of Taguchi Method In Manufacturing Field By Optimising The Input Process Parameters With The Help Of Signal To Noise (S/N) Ratio. A Brief Introduction Of Anova (Analysis Of Variance) Technique And L9 (Oa) Orthogonal Array Are Also Been Studied By Taking An Example Of Friction-Welding Process. The Input Process Parameters Like Profile Of Tool, Welding Speed And Revolution Of Tool Are Studied By L_9 Orthogonal Array Of Taguchi Method, Which Will Give Optimal Solution In-Terms Of Combination Of Input Process Parameters.

Keywords: Taguchi, Anova, Design Of Experiments, L9 Orthogonal Array, S/N Ratio