

Department : **Mechanical**

Year : **2016-2017**

Group No: **12**

Guided By

**PROF. NITIN
AGRAWAL**

SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA

Project Title

**PROCESS ANALYSIS ON MILD STEEL BY TAGUCHI METHOD
USING TIG WELDING**

Abstract:

Tungsten Inert Gas welding is one of the most widely used techniques for joining ferrous and nonferrous metal. In which the arc is generated between a non-consumable tungsten electrode and work-piece, and the molten metal is protected from the atmosphere by using the shielding of inert gas argon.

In this study, ms1018 sheet material having 2mm thickness were welded using TIG welding. The welding process parameter namely welding current, Gas flow rate, voltage considered for weld quality. The Taguchi method advocated the use of orthogonal array design to assign the factors chosen for the experiment. 9 experiments have been designed using L9 orthogonal array of Taguchi method.

ANOVA analysis was used to find significance of control factors and analyses the effect of each welding process parameter on the tensile strength, hardness and then we determine the optimal process parameter

Prepared By:

Sr. No.	Student Name	Enrollment No
1	MALVIK K. PATEL	120780119130
2	KAUSHIK A. SINDHAV	120780119099
3	NEHALKUMAR J.BHATIYA	110780119080

