

**FATIGUE ANALYSIS OF SIMILAR AND DISSIMILAR SOLID  
ROD WELDING USING FRICTION WELDING PROCESS**

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ROD WELDING USING FRICTION WELDING PROCESS**  
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FATIGUE ANALYSIS OF SIMILAR AND DISSIMILAR SOLID ROD WELDING USING  
FRICTION WELDING PROCESS

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Thesis submitted in partial fulfillment of the requirements for the award of the degree  
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JUNE 2013

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**LIST OF SYMBOLS**

%	Percentage
<	Less than
<sup>0</sup> C	Degree Celsius
$\sigma$	Stress
$\varnothing$	Diameter
<i>M</i>	Moment

**LIST OF ABBREVIATIONS**

FRW/FW	Friction welding
TIG	Tungsten Inert Gas
MIG	Metal Inert Gas
LFW	Linear Friction Welding
RFW	Rotary Friction Welding
FSW	Friction Stir Welding
S	Stress
N	Number of Cycles
Al	Aluminium 1100
MS	Mild Steel
RPM	Revolution Per Minute
FPDZ	Transformed And Recrystallized Fully Deformed Zone
DZ	Deformation Zone
UZ	Unaffected Zone
SEM	Scanning Electron Microscopic
EDX	Energy Dispersive X –Ray