Department : Mechanical

Year : 2012-2013

Group No: 13

Guided By

**PROF. S. G. PATEL** 

# SMT. S. R. PATEL ENGINEERING COLLEGE, UNJHA

### **Project Title**

### LINEAR STATIC ANALYSIS & DEVELOPMENT OF ROBOTIC ARM

### Abstract:

This is a project on linear static analysis & development of robotic arm. First we will go through the basics of linear static analysis with its definition, requirement & assumption in our project.

Then we see the brief explanation on the finite element method that includes its definition, range of application & its types. Also we go through evolution of robots, laws of robots & progressive advancement in robots. Its thus cover the literature survey. Then we see the basic concept of robotics which includes-Denavit-Hartenberg notation, prismatic joint, Jacobean rotary joint, Jacobean in robot.

Then we take picture of SCARA robot from internet. We are dealing with the SCARA robot. Then we first prepare the drawing in pro-e for 3D figures. And then prepare the assembly in pro-e. Lastly we take this pro-e figure in the ANSYS & do these analysis individually in each arm. After completion of Analysis using ANSYS we develop a Model of robotic arm. Then we will come to conclusion. Finally we just write future work of this topic & appendices of it.

## **Prepared By:**

Sr. No.	Student Name	<b>Enrollment</b> No
1	RIFAQUAT HUSSAIN VIJAPURWALA	90780119066
2	MIHIR .B. JOSHI	90780119036
3	TAHIR.N.MOMIN	90780119063
4	DILIP.V. DAVE	90780119027

