**SARDAR VALLABHBHAI NATIONAL INSTITUTE OF TECHNOLOGY, SURAT**

**DEPARTMENT OF CIVIL ENGINEERING**

**STRUCTURAL ENGINEERING SECTION**

**ENGINEERING MECHANICS LABORATORY**

Engineering Mechanics laboratory was established in the year ~~1961~~. The laboratory is located in front of Department of Civil Engineering, Wing-B. The laboratory facilities are utilized by undergraduate students of each specialization of engineering. This lab helps to understand the basics of mechanics. In this lab, students get a field experience of behaviour of different types of forces. The laboratory has good potential to carry out research and generate revenue using calibration and testing work in future. List of equipment available in the laboratory is given below:

|  |  |
| --- | --- |
| **Sr. No.** | **Equipment Name** |
| 1 | Universal force table apparatus |
| 2 | Coplanar parallel forces apparatus |
| 3 | Simple plane roof truss apparatus |
| 4 | Fly wheel apparatus |
| 5 | Static surface friction apparatus |
| 6 | Belt friction apparatus |
| 7 | Forces in space apparatus |

**LIST OF EXPERIMENTS**

**Engineering Mechanics Lab (B. Tech-I (All Branches), Semester I and II)**

|  |  |
| --- | --- |
| **Sr. No.** | **Title of Experiment** |
| 1. | Plane force polygon |
| 2. | Forces in space |
| 3. | Simple plane roof truss |
| 4. | Coplanar parallel forces |
| 5. | ‘E’ by Searle’s apparatus |
| 6. | Belt friction |
| 7. | Static surface friction |
| 8. | Gravitational acceleration |
| 9. | Mass M.I. of inertia |
| 10. | Determination of ‘g’ by Fletcher’s trolley |

# Photos of Some Experimental Set Ups

# UNIVERSAL FORCE TABLE APPARATUS

# 

# COPLANAR PARALLEL FORCES APPARATUS

# 

# SIMPLE PLANE ROOF TRUSS APPARATUS

# 

# FLY WHEEL APPARATUS

# 

# STATIC SURFACE FRICTION APPARATUS

# 

# BELT FRICTION APPARATUS

# 

# FORCES IN SPACE APPARATUS

# 