

Course: Fundamentals of Work Study and Ergonomics
Course Code: IENG301

List Experiments and Exercises for the Laboratory

1. Preliminary Understanding of Method Study:

To find out an appropriate/best method doing an assembly or a job. (Lab 1)

2. Process Analysis: Application of Charts and Diagrams for Method Study

To analyse the method of doing a job with the help of charts and diagrams.
To suggest an improved method.

- (a) *Process Chart* and *Assembly Process Chart* for “Commutator-rotor body” (Lab 2)
- (b) *Activity Chart* and *Man/Machine Diagram* for “Lift and Laborer” (Lab 3)
- (c) *Operation Chart* for “Bolt and Washer Assembly” (Lab 4)
- (d) *Simultaneous Motion Cycle Chart* for “Pin Board” (Lab 5)

3. Work Sampling:

To make observations at random intervals of one or more operators or machines and determining whether they are working or idle. (Lab 6)

- (a) Activity and Delay Sampling
- (b) Performance Sampling
- (c) Work Measurement

4. Measurement and Analysis of Work and Recovery Cycles for the jobs simulated on:

- (a) Bicycle Ergometer
- (b) Tread Mill (Lab 7)

5. Anthropometry: Measuring and Analysis data for the group of subjects in different postures:

To start with, static measurements are to be collected, followed by recording of dynamic measurements for certain operations. (Lab 8)