IENG301 LABORATORY 1

Experiment: Preliminary Understanding of the Principles of Method Study

Objectives: 1. To suggest a number of methods of doing the job under study

2. To compare between these methods on the basis of selected criteria

3. To find out the best or an appropriate method of doing the job under study.

Study Procedure:

1. For the given assembly, list the number and types of components/items making up of the job or the assembly. Make sketches of all these components.

2. Make a schematic diagram of the work bench indicating in it very clearly the location of the components, assembly area, and subject doing the assembly.

3. Apply your common sense with the consideration of prevailing condition in the work-place; suggest a method of doing the job with the given components.

4. Select the criteria for judging the method suggested in (3). Make a table where you rate the method on each of criteria selected. Both objective and subjective scores you may provide. From these scores, you may rank the method suggested.

In step (4), the following criteria could be selected:

(a) Time taken to complete the job
(b) Ease of handling
(c) Use of both hands simultaneously
(d) Symmetry in the arrangements / workbench layout
(e) Flow of components (smoothness)
(f) Travel distance

Lead Questions:

1. Can you identify some principles of motion economy which may be relevant in this exercise?
2. How do you identify the work elements for each method you suggest? What is the guiding principle for identification?
3. What are the difficulties you may face if you repeat the method a large number of times?