

# AMIE08 WORK SYSTEM DESIGN

## UNIT-1 WORK SYSTEM DESIGN

- 1.1 Introduction and Concept of Productivity, Measurement of Productivity, Productivity Measures, Productivity, Measurement Models,
- 1.2 Factors Influencing Productivity, Causes of Low Productivity, Productivity Measurement Models, Productivity Improvement Techniques, and Numerical Problems on productivity, Case study on productivity.

## UNIT-2 WORK STUDY

- 2.1 Basic Concept, Steps Involved in Work Study, Concept of Work Content, , Techniques of Work Study, Human Aspects of Work Study.

## UNIT-3 METHOD STUDY

- 3.1 Basic Concept, Steps Involved in Method Study, Recording Techniques, Operation Process Charts, And Operation Process Charts: Examples.
- 3.2 Flow Process Charts, Flow Process Charts: Examples, Two-Handed-Process Charts, Multiple Activity Charts, Flow Diagrams.
- 3.3 String Diagrams, Principles of Motion Economy, Micro-Motion Study, Therbligs, SIMO Charts
- 3.4 Memo-Motion Study, Cycle graph and Chrono-Cycle Graph, Critical Examination Techniques, Development and Selection of New Method, Installation and Maintenance of Improved Methods.

## UNIT-4 WORK MEASUREMENT

- 4.1 Basic Concept, Techniques of Work Measurement, Steps Involved in Time Study, Steps and Equipment of Time Study, Performance Rating.

## UNIT-5 PERFORMANCE RATING

- 5.1 Examples, Allowances, Computation of Standard Time-I, Computation of Standard Time-II

## UNIT-6 WORK SAMPLING

- 6.1 Basics, Procedure of Work Sampling Study, Numerical Problems on work sampling,
- 6.2 Introduction to Synthetic Data and PMTS, Introduction to MTM and MOST

## UNIT-7 ERGONOMICS:

- 7.1 Basic Concept, Industrial Ergonomics, Ergonomics: Anthropometry, Man-Machine System-1, Man-Machine System-2

## References Books

1. Introduction to Work Study: International Labor Office (ILO), Geneva.
2. Industrial Engineering and Production Management: M. Telsang, S. Chand and Company Ltd.