

**ELECTIVE COURSE – IV : SOFTWARE PROJECT MANAGEMENT**

**UNIT I                    SYSTEM ANALYSIS & DESIGN**

Overview of system analysis & Design: Introduction to different methodologies & Structured system analysis – Details of SDLC approach – mini cases – E-R diagrams – DFD concepts – Data dictionary concepts. Structure charts – modular programming – I/O & file design consideration – Entity Life histories (ELH).

**UNIT II                    SYSTEM IMPLEMENTATION**

System implementation & maintenance: Implementation Strategies – SW/HW selection & procurement – Control & security – issues of designing & implementing on-line systems – data communication requirements – system conservation approaches & selection issues.

**UNIT III                    PROJECT DEVELOPMENT & DATABASE DESIGN**

Introduction to Database technologies & CASE tools with specific packages – overview of relational model – Database creation – SQL command – Normalization – designing forms & reports – using CASE tools for system analysis & design-case studies – Cost / benefit analysis – project & resource planning – design & development testing & documentation.

**UNIT IV                    SOFTWARE PROJECT MANAGEMENT**

Software project management: challenges & opportunities – changing technologies & approaches – choice development of methodologies & technical platforms, project management techniques – monitoring & measurement of progress.

**UNIT V                    SOFTWARE PROJECT MANAGEMENT**

Software project management – elements, cost estimation, manpower planning, Software & Product Metrics – Quality assurance & control-standards & documentation – testing – implementation – training – technology management – quality standards – certificate – handling multiple projects, issues of share development.

**Text Books:**

1. Senn, J.A. “Analysis & Design of Information Systems”, “McGraw Hill Publications.
2. Beaver, ‘An Introduction to Managing Software Projects’.

**Reference:**

Marco, T.D. “Structured Analysis & System Specification”, Prentice Hall Publications.