Details of Course:

Course Title: Skill Enhancement Course 2

Course Title	Course Structure			Pre-Requisite
Computer Workshop 2	**L**	**T**	**P**	**Nil**
	0	**0**	**4**	

Course Objective:
Students of Software Engineering require to develop software or product for solving real world problems in academia, and industry. Thus, this course will teach the process of developing a software with feasible solution. Students will gain knowledge about storing the data in a system, using diagrammatic representation and establishing relationship among different attributes of a data. This course will help them in understanding diagrammatically the flow of data among different modules. With the help of this course, students will be able to understand the importance of analyzing problem and it's solution from developer and customer perspective**.**

Course Outcome (CO):
After completing their training in Software Engineering Workshop, students will be able to
CO1. Demonstrate the modelling of data stored in a database.
CO2. Demonstrate the way information is flowing through the system.
escribe the procedure for designing data flow diagram and context diagram.
CO3. Describe the process of interaction among external entities with an internal software system.
CO4. Demonstrate the process of collecting requirements form the user for software development.

S.No.	Content	Contact Hours
Unit 1	Entity Relationship (ER) Diagram: ER Diagram Representation, Generalization, Aggregation, Codd's Rule, Relational Data Model, Relational Algebra. ER to Relational Model.	2
Unit 2	Data Flow Diagrams: Symbols used for constructing DFD, Synchronous and Asynchronous Operations, Data Dictionary, DFD model of a system consisting of hierarchy of DFDs, construction of context diagram, construction of level1 diagram, construction of lower-level diagrams, construction of level 2 diagrams, data dictionary for the DFD model.	4
Unit 3	Structure Chart: Extension of DFD technique for designing real-time systems, Structured design, transformation of a DFD Model into structure chart, transform analysis, transaction analysis, and detailed design.	4
Unit 4	Microsoft Excel: Manage workbook options and settings, apply custom data formats and layouts,	4

		create tables, perform operations with formulas and functions, create charts and objects, manage workbook options and settings, apply advanced conditional formatting and filtering, prepare a workbook for internationalization, create advanced formula, perform data analysis, troubleshoot problems, create and manage pivot tables, create and manage pivot charts.	
Unit 5	Microsoft PowerPoint: Introduction, windows features, presentation slides, create slide presentation, editing techniques, slide master, format slide, transitions and animation, slide illustration and shapes, slide show, print presentation.	2
	Total	16