**IT6413 SOFTWARE ENGINEERING LABORATORY**

 **L T P C**

 **0 0 3 2**

**OBJECTIVES:**

To understand the software engineering methodologies for project development.
 To gain knowledge about open source tools for Computer Aided Software Engineering.
 To develop an efficient software using case tools

**SOFTWARE REQUIRED:**

  Open source Tools: StarUML / UMLGraph / Topcased Prepare the following documents for each experiment and develop the software using software engineering methodology

1. Problem Analysis and Project Planning -Thorough study of the problem – Identify Project

 scope, Objectives and Infrastructure.
2. Software Requirement Analysis – Describe the individual Phases/modules of the project and

 Identify deliverables.
3. Data Modelling – Use work products – data dictionary, use case diagrams and activity

 diagrams, build and test class diagrams, sequence diagrams and add interface to class

 diagrams.
4. Software Development and Debugging – implement the design by coding
5. Software Testing – Prepare test plan, perform validation testing, coverage analysis,
 memory leaks, develop test case hierarchy, Site check and site monitor.

**Sample Experiments: Academic domain**
1. Course Registration System
2. Student marks analysing system
Railway domain
3. Online ticket reservation system
4. Platform assignment system for the trains in a railway station
Medicine domain
5. Expert system to prescribe the medicines for the given symptoms
6. Remote computer monitoring
Finance domain
7. ATM system
8. Stock maintenance
Human Resource management
9. Quiz System
10. E-mail Client system.

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**LAB EQUIPMENT FOR A BATCH OF 30 STUDENTS:**

**SOFTWARE:**

Argo UML / StarUML / UMLGraph / Topcased or Equivalent.