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| 13CS1103 | - | SOFTWARE ARCHITECTURE |

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| Hours / Week | : | 4 |  | Sessional Marks | : | 40 |
| Credits | : | 4 |  | End Examination Marks | : | 60 |

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| **UNIT - I** |
| **Introduction to Software Architecture:** An Engineering Discipline for Software, Status of S/W Architecture. Architecture Business Cycle, Where do Architectures Come from. Software Processes and the Architecture Business Cycle, Features of Good Architecture |
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| **UNIT – II** |
| **Architecture Styles:** Pipes and Filters, Data Abstraction and Object Oriented organization, Even-based Implicit Invocation, Layered Systems, Registers, Interpreters, Process Control, Other Familiar Architectures, Heterogeneous Architectures. Shared Information Systems Database Integration, Interpretation in Software Development Environments, Architectural Structures for Shared Information Systems. |
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| **UNIT – III** |
| **Architectural Design Guidance:** Guidance for User Interface Architectures, Case Study in Inter-Operability: World Wide Web. Pattern Types Architectural Patterns, Structural Patterns, Patterns for Distribution, Patterns for Interactive Systems |
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| **UNIT – IV** |
| **Formal Models And Specifications**: Finalizing the Architectural of a Specific System, Architectural Style, Architectural Design Space, Case Study of an Industry Standard Computing. **Infrastructure:** CORBA Architectural Description Languages, ADL’s today, capturing Architectural Information in an ADL, Application of ADL’s in system Development, Choosing an ADL, Example of ADL. |
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| **UNIT – V** |
| **Reusing Architectural Assets Within An Organization**: Creating Products and Evaluating a Product Line, Organizational Implications of a Product Line, Component Based Systems. **Software Architectures in Figure:** Legacy Systems. Achieving an architecture, from Architecture to System. |
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| TEXT BOOKS |
| 1. S/W Arch. Perspective: on an Emerging Discipline by Mary Show, David Garlan, 1996, PHI.
2. Software Architecture in Practice by Len Bass, Paul Elements, Rick Kazman, 1998, PEA.
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