| LESSON PLAN(WINTER-2020)<br>SWAMI VIVEKANANDA SCHOOL OF ENGG & TECH, BBSR | | |
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| **Discipline- Computer Science & Engineering** | **Semester-5th** | **Name of teaching faculty- Bharati Nayak** |
| **Subject-Software Engineering** | **No. of days/per week class alloted-5** | **Semester from date- 01/09/2020 to 15/12/2020<br>No of weeks-15** |
| **Week** | **Class day** | **Theory Topics** |
| SEP 1ST | 9/1/2020 | **Introduction to Software Engineering Program vs Product** |
| | 9/2/2020 | Emergence of Software Engineering |
| | 9/3/2020 | Computer Systems Engineering |
| | 9/4/2020 | Software Life Cycle Models |
| SEP 2ND | 9/7/2020 | Classical Water fall model |
| | 9/8/2020 | Iterative Water fall model |
| | 9/9/2020 | Prototyping model, Evolutionary model |
| | 9/10/2020 | Spiral model |
| | 9/11/2020 | Doubt Clearing Class |
| SEP 3RD | 9/14/2020 | **Introduction to Software Project Management , Responsibility of Project Manager** |
| | 9/15/2020 | Project Planning |
| | 9/16/2020 | Metrics for Project size estimation (LOC and FP) |
| | 9/17/2020 | Project Estimation Techniques |
| | 9/18/2020 | COCOMO Models, Basic, Intermediate and complete |
| SEP 4TH | 9/21/2020 | COCOMO Models, Basic, Intermediate and complete |
| | 9/22/2020 | COCOMO Models, Basic, Intermediate and complete |
| | 9/23/2020 | Scheduling |
| | 9/24/2020 | Organization and Team structure |
| | 9/25/2020 | Staffing |
| OCT 1ST | 9/28/2020 | Risk Management , Configuration Management |
| | 9/29/2020 | Doubt Clearing Class |
| | 9/30/2020 | **Requirements gathering and analysis** |
| | 10/1/2020 | Requirements analysis |
| OCT 2ND | 10/5/2020 | Software Requirements Specification |
| | 10/6/2020 | Contents of SRS |
| | 10/7/2020 | Characteristics of Good SRS |
| | 10/8/2020 | Organization of SRS |
| | 10/9/2020 | Techniques for representing complexing logic |
| OCT 3RD | 10/12/2020 | Doubt Clearing Class |
| | 10/13/2020 | **What is a Good S/W design** |
| | 10/14/2020 | Cohesion and coupling |
| | 10/15/2020 | Neat arrangement |
| | 10/16/2020 | S/W Design approaches<br>Structured analysis |
| OCT 4TH | 10/19/2020 | Data Flow Diagrams , Symbols used in DFD |
| | 10/20/2020 | Designing DFD, Developing DFD model of a system |
| | 10/21/2020 | Shortcomings of DFD |
| | 11/2/2020 | Structured design |

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| NOV 1ST | 11/3/2020 | Principles of transformation of DFD to Structure Chart |
| | 11/4/2020 | Transform analysis and Transaction Analysis |
| | 11/5/2020 | Design Review |
| | 11/6/2020 | Doubt Clearing Class |
| NOV 2ND | 11/9/2020 | **Characteristics of Good Interface** |
| | 11/10/2020 | Basic concepts of UID |
| | 11/11/2020 | Types of User interfaces |
| | 11/12/2020 | Components based GUI development |
| | 11/13/2020 | Doubt Clearing Class |
| NOV 3RD | 11/16/2020 | **Introduction to Software Coding & Testing** |
| | 11/17/2020 | Code Review Code walk through |
| | 11/18/2020 | Code inspections and software Documentation |
| | 11/19/2020 | Testing, Unit testing |
| | 11/20/2020 | Black Box Testing |
| NOV 4TH | 10/23/2020 | Equivalence class partitioning and boundary value analysis |
| | 10/24/2020 | White Box Testing |
| | 10/25/2020 | Different White Box methodologies statement coverage, branch coverage |
| | 10/26/2020 | Condition coverage, path coverage |
| | 10/27/2020 | Cyclomatic complexity data flow based testing and mutation testing |
| DEC 1ST | 10/30/2020 | Debugging approaches, Debugging guidelines |
| | 12/1/2020 | Integration Testing, Phased and incremental integration testing |
| | 12/2/2020 | System testing alphas beta and acceptance testing |
| | 12/3/2020 | Performance Testing, Error seeding |
| | 12/4/2020 | General issues associated with testing |
| DEC 2ND | 12/7/2020 | Doubt Clearing Class |
| | 12/8/2020 | **Introduction to Software Reliability** |
| | 12/9/2020 | Different reliability metrics |
| | 12/10/2020 | Reliability growth modeling |
| | 12/11/2020 | Software quality |
| DEC 3RD | 12/14/2020 | Software Quality Management System |
| | 12/15/2020 | Doubt Clearing Class |