



## **Sub Committee for Curriculum Development**

**Course Name: Verification and Validation Techniques**

**(UG/PG): UG**

**Number of Credits: 4**

**Level: 3**

### **Learning Objective(s):**

Software Verification and Validation is a very important step towards better software quality. It covers in detail the entire process of Software Testing which including Software verification and validation.

### **Pedagogy:**

- Lectures
- Case Studies

### **Pre-learning:**

- Knowledge of computer programming.
- Understanding of business processes in various types of industries.
- Good understanding of Information Technology and its use in building business applications.

### **Course Outline**

<b>Sr.No.</b>	<b>Topic</b>	<b>No. of Hours</b>
1	<b>Overview of V &amp; V</b> Software Testing Software Quality QA & QC	3
2	<b>Life Cycle</b> Product Life cycle Testing life cycle V Model	9
3	<b>Phases of Testing Life Cycle</b> Requirement Analysis Test Plan Test case Environment setup Test case execution Test report Test Close	18
4	<b>Testing Techniques &amp; related problems</b> White Box	12

	Black Box	
5	<b>Defects</b> Defect definition Defect Classification Defect Report Defect Log Version Control	9
6	<b>Software Quality</b> Quality Factors MC'Calls Quality Traingle FURPS	3
7	Introduction to Software Configuration Management	6
	<b>Total Hrs</b>	60

**Books Recommended**

- The art of software testing by G J Myers
- Software testing in the real world by Edward Kit
- Introduction to Personal Software Process by Watts Humphrey
- Effective methods for software testing by William Perry
- Managing the software process by Watts Humphrey

**Suggested Evaluation Methods:**

- On line Test
- Class test
- Assignments
- Case study Presentation

**Parallel/Similar courses the existing curriculum:**

S.No.	Name of the course	Institute where it was offered

Name of Member	Mr. Shirish Joshi	Ms Hema Gaikwad			
Designation	Assc. Professor	Asst. Professor			
Org. / Inst.	SICSR	SICSR			
Signature					

Name of the Expert:

Signature:

Date: