



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**  
**TECHNOLOGY ENABLED LEARNING**

**Technology Enabled Learning follow up**

1. Course Information

1. Course Structure (CS)
2. Course Learning Objectives (CLO)
3. Course Learning Session (CLS)

2. Course Content

1. Session Plan
2. Learning Content (PPT)
3. Learning Practice (Worksheet)
4. Learning Practice Solutions (Worksheet Solutions)
5. Learning Material (Unit Notes PDF Format)
6. Learning Material (Unit Notes DOCX Format)
7. Multiple Choice Questions
8. Short Questions
9. Long Questions
10. Videos / Audios

3. Course Status

4. Add Faculty to the Course

5. Reports

6. Individual Student Report

7. Question Paper Generation

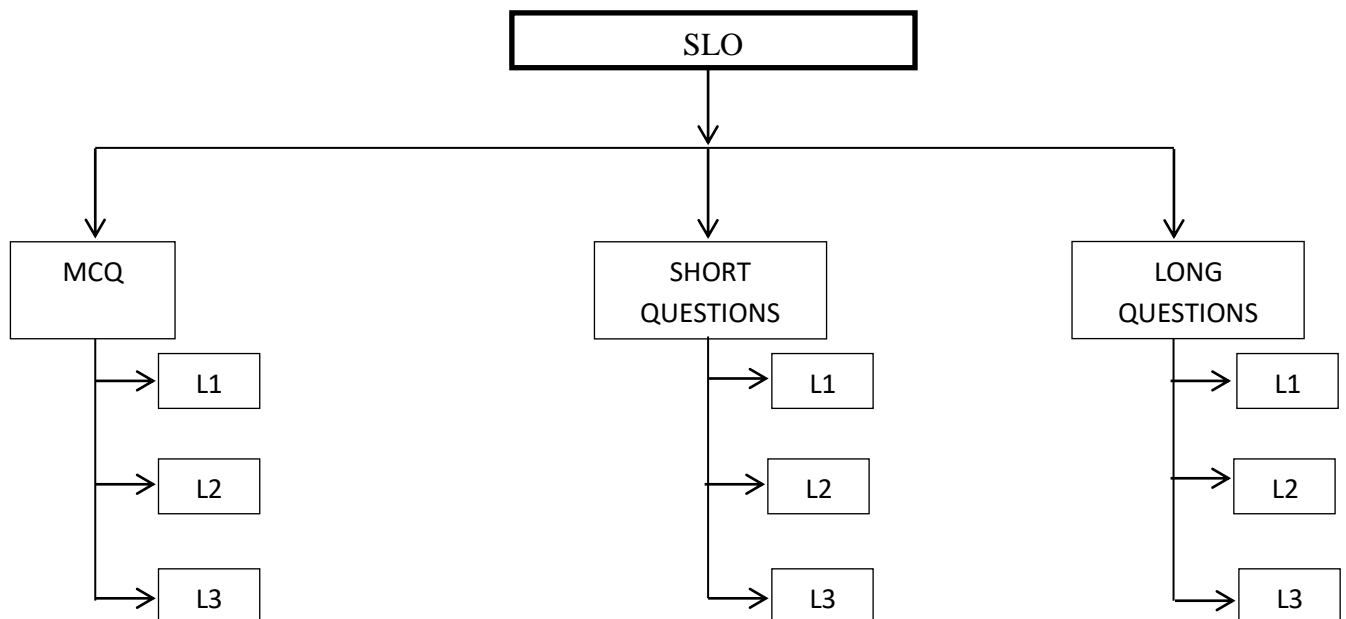
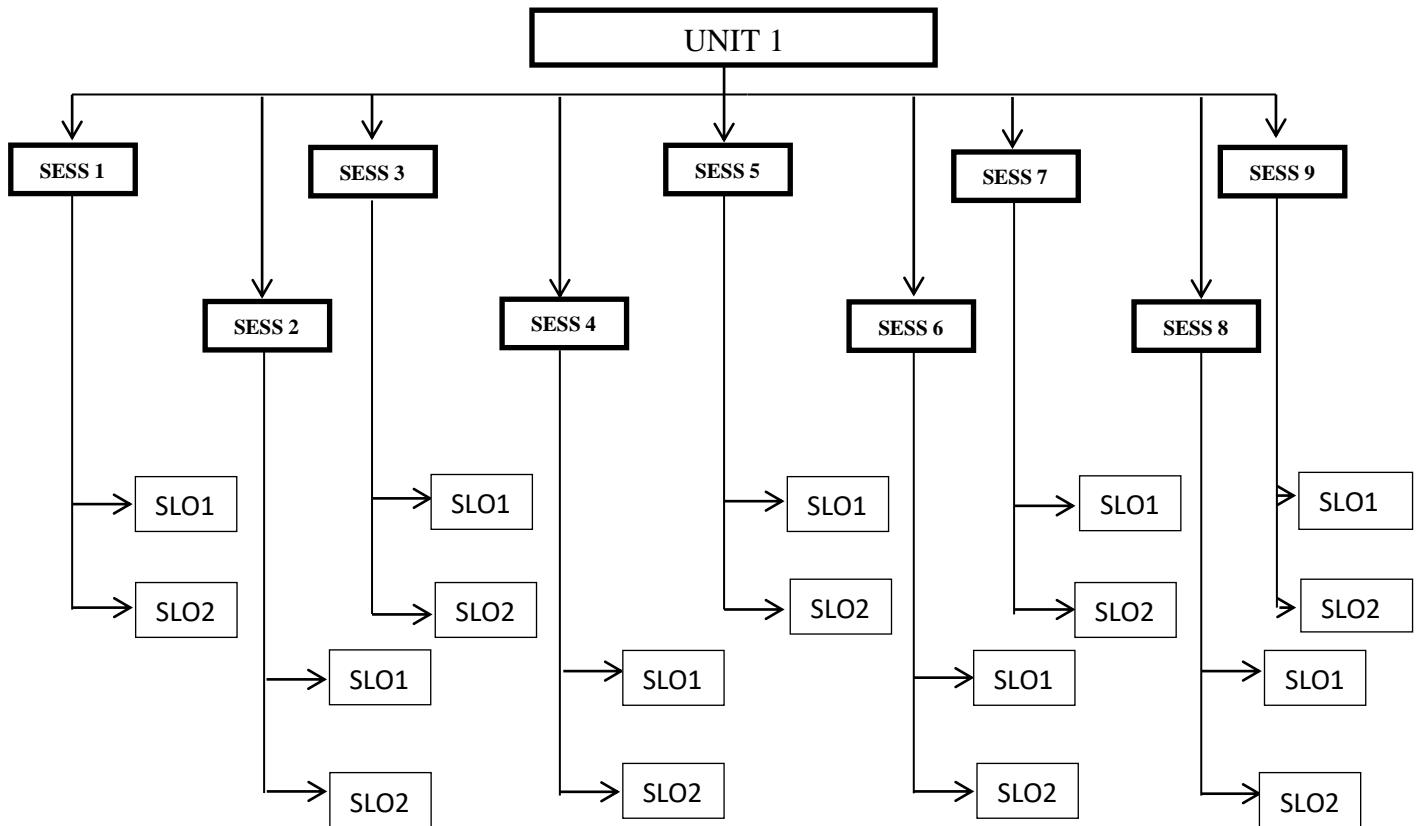
8. Charts

9. User Information



**DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING**

**UNIT FOLLOW UP FOR 3 CREDIT COURSE IN TEL**





## **Technology Enabled Learning follows up in the institution:**

### **Technology Enabled learning (Faculty follow up)**

- Subject Coordinator coordinates the register faculty under same. Each subject staffs have their own login and maintain the students registered under them.
- Coordinator login maintain the total registered faculty and student registered under the course.
- Each unit of the course is splitted into different session based upon the credit sof the subjects.
  - If it is an 3credit it is splitted into 9 sessions and if it is 4 credit course it is splitted into 12 sessions.Each sessions are specified by its session learning outcomes and each sessions are provided with cose content,practicesession,multiple choice questions,short questions and long question.
  - The session content and materials are uploaded in the server by the subject handling faculties headed by the course coordinator.
  - Each student performance can be measured by the detailed report exported from the individual facultylogin and from course coordinator login.

### **Technology Enabled learning (Student follow up)**

- Students can view the session split up details through their login and can view the learning materials and can take up the practice sheets for each sessions containing 2 SLO.
- The students can attend the assessment and evaluated by the concerned staff in charge in their login through which the performance of each student can be measured.
- Students can get to know about their learning plan of all session of each unit through their coordinator updated information in TEL server.



## Course Structure

### TEL CURRICULA

Back Logout

#### Course Information

Course Structure > Course Learning Objectives > Course Learning Session

Course Code	Course Name			
16EC602	VLSI DESIGN			
Course Category	Lecture (L)	Tutorial (T)	Practical (P)	Credit (C)
Professional Core	3	0	0	3
Pre-Requisite Course	Co-Requisite Course	Progressive Course		
16EC302R, 16EC403	NIL	16ECE04		
Offering Department	Data Book/Codes/Standards			
ELECTRONICS AND COMMUNICATION ENGINEERING	NIL			
Course Learning Rationale				
To understand the CMOS Fabrication Process and CMOS Circuits, To study CMOS Circuits using various Logic Styles, To provide basic knowledge about Memory and				
FILE	Upload one syllabus .pdf file			DOWNLOAD
				SUBMIT

## Course Learning Objectives

### TEL CURRICULA

Back Logout

#### Course Information

Course Structure > Course Learning Objectives > Course Learning Session

Course Code	Course Name													
16EC602	VLSI DESIGN													
<b>CLO 1</b>														
Upon completion of the course, the learners will be able to														
Demonstrate CMOS Fabrication process and Layout Design														
<b>Programme Learning Outcomes (PLO) &amp; Specific Outcomes (PSO)</b>														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<b>CLO 2</b>														
Upon completion of the course, the learners will be able to														
Analyze MOS Circuit Design Process														
<b>Programme Learning Outcomes (PLO) &amp; Specific Outcomes (PSO)</b>														
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>



## Course Learning Session

Navigation icons: back, forward, refresh, home, search, 67%, star, search, download, print, share, menu. TEL CURRICULA Back Logout

### Course Information

Course Structure > Course Learning Objectives > Course Learning Session

Course Code: 16EC602 Course Name: VLSI DESIGN

#### Unit Information

Unit Name	Session Count (1-30)
FABRICATION OF CMOS IC AND PHYSICAL DESIGN	9
MOS CIRCUIT DESIGN PROCESS	9
CMOS LOGIC STYLES AND MEMORIES	9
VLSI SUBSYSTEM DESIGN	9
VERILOG HDL DESIGN PROGRAMMING	9

SUBMIT

## Course Content

### Session Plan

Navigation icons: back, forward, refresh, home, search, 67%, star, search, download, print, share, menu. tlc.krgi.in/curricula3/login/coordinator/coursecontent/sp/

Unit : 5 Session : 1

SLO 1 (At the end of this session, my learners will be able to)

**Basic Concepts**

SLO 2 (At the end of this session, my learners will be able to)

**Visi Design Flow**

Time Duration	Title	Conceive	Design	Implement	Operate
5	Recap / Introduction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	SLO-1 Content	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	SLO-1 Practice	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	SLO-2 Content	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10	SLO-2 Practice	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Summarize Today's Topic	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

UPDATE



## Learning Content

Browser: tlc.krgi.in/curricula3/login/coordinator/coursecontent/slc/ 67%

Unit 5 : VERILOG HDL DESIGN PROGRAMMING

Session No.	SLO	Status	Browse	Action
1	1	Available	FILE Upload one .pdf file	UPLOAD
1	2	Available	FILE Upload one .pdf file	UPLOAD
2	1	Available	FILE Upload one .pdf file	UPLOAD
2	2	Available	FILE Upload one .pdf file	UPLOAD
3	1	Available	FILE Upload one .pdf file	UPLOAD
3	2	Available	FILE Upload one .pdf file	UPLOAD
4	1	Available	FILE Upload one .pdf file	UPLOAD

## Learning Practice

Browser: tlc.krgi.in/curricula3/login/coordinator/coursecontent/slp/ 67%

TEL CURRICULA Back Logout

**Learning Practice (Worksheets)**

The worksheet will provide a student with important opportunities to practice a new skill gained in class, to enhance learning effectively.

Course Code: 16EC602 Course Name: VLSI DESIGN

LEARNING PRACTICE

Select Unit: Unit 5 SUBMIT

Unit 5 : VERILOG HDL DESIGN PROGRAMMING

Session No	SLO	Status	Browse	Action
1	1	Available	FILE Upload one .docx file	UPLOAD
1	2	Available	FILE Upload one .docx file	UPLOAD
2	1	Available	FILE Upload one .docx file	UPLOAD



## Multiple Choice Questions

### TEL CURRICULA

#### MCQ Questions

Course Code  
16EC602

Course Name  
VLSI DESIGN

110

LEVEL 1

131

LEVEL 2

67

LEVEL 3

#### Import / Export Questions

Import Questions

Download Template file (.csv)

Export Questions

#### Add / Edit / View Questions

Select Unit

Unit 5

Select Session

Session 1

Select SLO

SLO 1

SUBMIT

Edit / View Questions

Unit : 5

Session : 1

SLO : 1

## Short Questions

### TEL CURRICULA

#### Short Questions

Course Code  
16EC602

Course Name  
VLSI DESIGN

18

LEVEL 1

18

LEVEL 2

18

LEVEL 3

#### Import / Export Questions

Import Questions

Download Template file (.csv)

Export Questions

#### Add / Edit / View Questions

Select Unit

Unit 5

Select Session

Session 1

Select SLO

SLO 1

SUBMIT

Edit / View Questions

Unit : 5

Session : 1

SLO : 1



## Long Questions

TEL CURRICULA

Back Logout

### Long Questions

Course Code  
16EC602

Course Name  
VLSI DESIGN

18

LEVEL 1

18

LEVEL 2

18

LEVEL 3

### Import / Export Questions

Import Questions

Download Template file (.csv)

Export Questions

### Add / Edit / View Questions

Select Unit

Unit 5

Select Session

Session 1

Select SLO

SLO 1

SUBMIT

Edit / View Questions

Unit : 5   Session : 1   SLO : 1

SLO Name

## Question Paper Setting

TEL CURRICULA

Back Logout

### Question Paper Generation

Course Code  
16EC602

Course Name  
VLSI DESIGN

Question Pattern

No. of MCQ Questions

2

No. of Short Questions

2

No. of Long Questions

2

SUBMIT

Select Difficulty Level

MCQ Questions

Question 1

Select Unit

Unit 5

Select Level

Level 2

Question 2

Select Unit

Unit 5

Select Level

Level 1

Short Questions