



DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

Lesson Plan & Work-done Diary for AY: 2024-25, ODD Semester

| | Course with | n Code: Digital Logic Circuits / BEE306A | | | Faculty: Mrs. Sw | athi C A | Semester & Section: III | |
|--------------|----------------------------|--|-----------------|--------------|----------------------------------|-----------------------|-------------------------|-----------------------------|
| Class No. | Date planned (DD/MM) | Topics to be covered | TLP Planned | Class No. | Date of Conduction (DD/MM) | Topics Covered | TLP Executed | Remarks if any deviation |
| | | • • | | | MODULE-1 | 1 | | |
| 1 | | Introduction | ICT | | | | | |
| 2 | | Principles of Combinational Logic: Definition of combinational logic | ICT | | | | | |
| 3 | | Canonical forms | ICT | | | | | |
| 4 | | Generation of switching equations from truth tables | ICT | | | | | |
| 5 | | Boolean Theorems & rules | Chalk & Talk | | | | | |
| 6 | | Simplification of Boolean expressions | Chalk & Talk | | | | | |
| 7 | | Karnaugh map rules & regulations | Chalk & Talk | | | | | |
| 8 | | Karnaugh maps-3,4,5 variables | Chalk & Talk | | | | | |
| 9 | | Incompletely specified functions (Don't care terms) | Chalk & Talk | | | | | |
| 10 | | Quine-McCluskey minimization technique | Chalk & Talk | | | | | |
| 11 | | Quine-McCluskey using don't care terms | Chalk & Talk | | | | | |
| 12 | | Reduced prime implicants Tables | Chalk & Talk | | | | | |





| | Course with Code: Digital Logic Circuits / BEE306A | | | | Faculty: Mrs. | Swathi C A | Semester & Section: III | |
|--------------|--|---|-----------------|--------------|----------------------------------|----------------|-------------------------|-----------------------------|
| Class No. | Date planned (DD/MM) | Topics to be covered | TLP Planned | Class No. | Date of Conduction (DD/MM) | Topics Covered | TLP Executed | Remarks if any deviation |
| | MODULE-2 | | | | | | | |
| 13 | | Analysis and Design of Combinational logic: General approach to combinational logic design | Chalk & Talk | | | | | |
| 14 | | Decoders and BCD decoders | Chalk & Talk | | | | | |
| 15 | | Encoders | Chalk & Talk | | | | | |
| 16 | | Digital multiplexers | Chalk & Talk | | | | | |
| 17 | | Using multiplexers as Boolean function generators | Chalk & Talk | | | | | |
| 18 | | Adders and subtractors | Chalk & Talk | | | | | |
| 19 | | Cascading full adders | Chalk & Talk | | | | | |
| 20 | | Look ahead carry, Binary comparators | Chalk & Talk | | | | | |





| | Faculty: M | rs. Swathi C A | Semester & Section: III | | | | | | | |
|------------------|----------------------------|--|-------------------------|----------------------------------|----------------|-----------------|--------------------------|--|--|--|
| Clas s No. | Date planned (DD/MM) | Topics to be covered | TLP Planned | Date of Conduction (DD/MM) | Topics Covered | TLP Executed | Remarks if any deviation | | | |
| | | | | MOD | ULE-3 | | | | | |
| 21 | L | Flip-Flops: Basic Bistable elements | Chalk & Ta | alk | | | | | | |
| 22 | | Latches, Timing considerations | Chalk & Ta | alk | | | | | | |
| 23 | | The master-slave flip-flops | Chalk & Ta | alk | | | | | | |
| 24 | | SR flip-flops, JK flip-flops | Chalk & Ta | alk | | | | | | |
| 25 | | Edge triggered flip- flops | Chalk & Ta | alk | | | | | | |
| 26 | | Characteristic equations | Chalk & Ta | alk | | | | | | |





| | Faculty: Mrs. Swathi C A | | Semester & Section: III | | | | | | |
|--------------|----------------------------|---|-------------------------|----------------------------------|----------------|-----------------|-----------------------------|--|--|
| Class No. | Date planned (DD/MM) | Topics to be covered | TLP Planned | Date of Conduction (DD/MM) | Topics Covered | TLP Executed | Remarks if any deviation | | |
| | MODULE 4 | | | | | | | | |
| 27 | | Flip-Flops Applications: Registers | Chalk & Talk | | | | | | |
| 28 | | binary ripple counters, synchronous binary counters | Chalk & Talk | | | | | | |
| 29 | | Counters based on shift registers | Chalk & Talk | | | | | | |
| 30 | | Design of a synchronous counter | Chalk & Talk | | | | | | |
| 31 | | Design of a synchronous mod-n counter using clocked T Flip Flop | Chalk & Talk | | | | | | |
| 32 | | Design of a synchronous mod-n counter using clocked JK Flip Flop | Chalk & Talk | | | | | | |
| 33 | | Design of a synchronous mod-n counter using clocked D Flip Flop | Chalk & Talk | | | | | | |
| 34 | | Design of a synchronous mod-n counter using clocked SR Flip Flop | Chalk & Talk | | | | | | |





| | Faculty: Mrs. Swathi C A | | Semester & Section: III | | | | | | |
|--------------|----------------------------|---|-------------------------|----------------------------------|----------------|-----------------|-----------------------------|--|--|
| Class No. | Date planned (DD/MM) | Topics to be covered | TLP Planned | Date of Conduction (DD/MM) | Topics Covered | TLP Executed | Remarks if any deviation | | |
| | MODULE 5 | | | | | | | | |
| 35 | | Sequential Circuit Design: Mealy and Moore models | Chalk & Talk | | | | | | |
| 36 | | State machine notation | Chalk & Talk | | | | | | |
| 37 | | Synchronous Sequential circuit analysis | Chalk & Talk | | | | | | |
| 38 | | Construction of state diagrams | Chalk & Talk | | | | | | |
| 39 | | counter design | Chalk & Talk | | | | | | |
| 40 | | Memories: Read only and Read/Write Memories, Programmable ROM, EPROM, Flash memory | Chalk & Talk | | | | | | |





| | Activity | Planned | Actual | Remarks | |
|-----------|--|--------------------------------------|--------------------|---------|--|
| 1 | Theory Classes | 41 | | | |
| 2 | Assignments/Quizzes/ Self study | 08 (Descriptive - 03 SRS – 05) | | | |
| 3 | Tutorials/ Extra classes | - | | | |
| 4 | Internal Assessments | 03 | | | |
| 5 | ICT based Teaching (% of usage in Curriculum) 23%(9/40) | | | | |
| | Planning | | Execution | | |
| Faculty S | ignature: | | Faculty Signature: | | |
| HOD Sig | nature: | | HOD Signature: | | |