School of Engineering
Bachelor's in Technology in Electronics Engineering (VLSI Design and Technology) (2025-2026) onwards (160 Credits)

First Semester		
Code	Course Name	Cr
CHY1001	Engineering Chemistry & Lab	3
MAS1001	Calculus & Matrices	3
ECE1002	Electronic Circuits	3
MEE1008	Basic Mechanical Engineering	3
CSC1001	Problem-Solving Using Computers	3
DOA1001	Human Rights and Values	1
CSC1130	Problem-Solving Using Computers Lab	1
LLC1011	Communication Skills	2
MEE1036	Engineering Graphics	1
	First Semester Credits	**20**

Second Semester		
Code	Course Name	Cr
PHY1001	Engineering Physics & Lab	4
MAS1002	Computational Mathematics	3
CHY1002	Environmental Studies	2
EEE1001	Electrical Technology	2
CIV1002	Engineering Material and Mechanics	3
MEE1038	Creativity & Innovation IDEA Lab	2
BIT1001	Biology for Engineers	2
MEE1037	MATLAB	1
DOA1002	Sports and Yoga or NCC/NSS	1
	Second Semester Credits	**20**

Third Semester		
Code	Course Name	Cr
MASXXXX	Statistics and Probability	3
XXXX	Principles of Management/Engineering Economics	3
VDT2104	Data Structures and Algorithms	3
VDT2105	Digital Electronics	3
VDT2106	Electronics Devices & Circuits	3
VDT2107	Circuits & Systems	3
VDT2108	Computer Architecture & Processor	3
VDT2132	Data Structures and Algorithms Lab	1
VDT 2133	Digital Electronics Lab	1
VDT 2134	Electronics Devices & Circuits Lab	1
	Third Semester Credits	**24**

Fourth Semester		
Code	Course Name	Cr
XXXX	Principles of Management/Engineering Economics	3
VDT2203	Analog Integrated Circuits	3
VDT2204	System Design using HDL	3
VDT2205	Digital Signal Processing	3
VDT2206	Electromagnetic Field Theory	3
VDT2232	Integrated Circuits Lab	1
VDT2233	System Design using HDL Lab	1
VDT2234	Digital Signal Processing Lab	1
VDT2271	Project Based Learning - 1	3
XXXX	Technical Writing	2
	Fourth Semester Credits	**23**

Fifth Semester		
Code	Course Name	Cr
VDT3105	Semiconductor Device Fabrication	3
VDT3106	Analog & Digital Communication	3
VDT3107	Digital VLSI Design	3
VDT3108	Microcontroller and Applications	3
VDT31XX	Program Elective 1	3
VDT31XX	Program Elective 2	3
VDT3132	Device Fabrication Lab	1
VDT3133	Analog & Digital Communication Lab	1
VDT3134	VLSI Design Lab	1
VDT3171	Project Based Learning - 2	3
	Fifth Semester Credits	24

Sixth Semester		
Code	Course Name	Cr
VDT3202	Embedded & RTOS	3
VDT3203	System Verilog for Verification	3
VDT3204	Design for Testability	3
VDT32XX	Program Elective 3	3
VDT32XX	Industry Elective	3
VDT3232	Embedded & RTOS Lab	1
VDT3233	System Verification Lab	1
XXXXXX	Open Elective	3
XXXXXX	Open Elective	3
	Sixth Semester Credits	23

Seventh Semester		
Code	Course Name	Cr
VDT41XX	Program Elective 4	3
VDT41XX	Program Elective 5	3
VDT41XX	Program Elective 6	3
VDT4171	Internship (Industry/ Research/ Industry Certification)	2
XXXX	Open Elective	3
	Seventh Semester Credits	14

Eighth Semester		
Code	Course Name	Cr
VDT4271	Capstone Project	12
	Eighth Semester Credits	12

Industry Elective

1. Project Based Learning-3	1. RTL to GDS II

Program Elective 1 - Program Elective 6

Program Elective 1	**Program Elective 2**	**Program Elective 3**
• VDT3146:FPGA Based System Design • VDT3147:Machine Learning • VDT3148:Introduction to Electronics Packaging	• VDT3149: Display Technologies • VDT3150:Principles of Nanomaterials & Quantum dots • VDT3151: Semiconductor Device Modeling	• VDT3249: Analog VLSI • VDT3250: High Speed Circuits • VDT3251: Optoelectronics

Program Elective 4	**Program Elective 5**	**Program Elective 6**
• VDT4148:Low Power VLSI Design • VDT4149:Semiconductor Memory Design • VDT4150:IoT	• VDT4151:Static Timing Analysis • VDT4152:VLSI Physical Design • VDT4153:Thin Film Transistors	• VDT4154:Scripting Language for VLSI • VDT4155:Mixed Signal IC Design • VDT4156:CAD for VLSI

Open Electives

Open Elective	**Open Elective**	**Open Elective**
• ECE0001: Introduction to communication system • ECE0002: Introduction to game theory • ECE0006: Microprocessor & Interfacing	• ECE0054: Introduction to Data, Signal, and Image Analysis with MATLAB • ECE0056: Information Theory and Coding	• ECE3085: Optical Fibre Technology