



GIRIJANANDA CHOWDHURY UNIVERSITY

Hathkhowapara, Azara, Guwahati 781017, Assam

School of Engineering and Technology

**DEPARTMENT OF ELECTRONICS AND COMMUNICATION
ENGINEERING**

**M.TECH –ELECTRONICS AND ELECTRICAL TECHNOLOGY
SEMESTER I & II**

**COURSE STRUCTURE
AY 2026 ONWARDS**



Semester I

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		C	IA
T	1.	PCC	MEC25301T	RTL Simulation and Synthesis with PLDs	3	0	0	3	40	60
T	2.	PCC	MEC25302T	Electric Vehicle	3	0	0	3	40	60
T	3.	PCC	MEC25303T	Digital Signal and Image Processing	3	0	0	3	40	60
T	4.	PE-I	MEC2532XT	Program Specific Elective-I	3	0	0	3	40	60
T	5.	OE-1	MEC2533XT	Open Elective I	3	0	0	3	40	60
P	6.	LAB I	MEC25301P	RTL Simulation and Synthesis with PLDs Lab	0	0	4	2	40	60
T	7.	MC	MEC25304T	Research Methodology	2	0	0	2	40	60
T	8.	AC	MEC2520XT	Audit Course – I	2	0	0	0	00	100
Total					19	0	4	19	280	520

Professional Elective - I

Sl.No.	Course Type	Code	Course
1.	PEC	MEC25320T	Microelectronic Devices and Modelling
2.	PEC	MEC25321T	VLSI Signal Processing
3.	PEC	MEC25322T	Digital MOS LSI Circuits
4.	PEC	MEC25323T	Power System Analysis and Design
5.	PEC	MEC25324T	Energy Generation from Waste
6.	PEC	MEC25325T	Renewable Energy Systems and Applications

Open Elective-I

Sl.No.	Course Type	Code	Course
1.	OE	MEC25330T	VLSI Design Verification and Testing
2.	OE	MEC25331T	Artificial Intelligence
3.	OE	MEC25332T	IOT and Applications
4.	OE	MEC25333T	Cyber Security
5.	OE	MEC25334T	Power Generation, Transmission and Distribution Systems
6.	OE	MEC25335T	Machine Learning and Robotics

Audit Course - I

Sl.No.	Course Type	Code	Course
1.	AU	MEC25201T	English for Research paper writing
2.	AU	MEC25202T	Disaster Management
3.	AU	MEC25203T	Value Education/Business analytics

**Semester II**

Theory/ Practical	Sl. No	Course Type	Course Code	Course Name	Hours per week			Credit	Mark	
					L	T	P		C	IA
T	1.	PCC	MEC25305T	Power Generation Operation & Control	3	0	0	3	40	60
T	2.	PCC	MEC25306T	Advanced Digital Signal Processing	3	0	0	3	40	60
T	3.	PCC	MEC25307T	Analog and Digital CMOS VLSI Design	3	0	0	3	40	60
T	4.	PE-II	MEC2542XT	Program Specific Elective-II	3	0	0	3	40	60
T	5.	OE-III	MEC2543XT	Open Elective-II	3	0	0	3	40	60
P	6.	LAB II	MEC25307P	Analog and Digital CMOS VLSI Design Lab	0	0	4	2	40	60
P.	7.		MEC25308T	Mini Project	0	0	4	2	40	60
T	8.	AC	MEC2520XT	Audit Course – II	2	0	0	0	00	100
Total					17	0	8	19	280	520

Professional Elective - II

Sl.No.	Course Type	Code	Course
1.	PEC	MEC25420T	Low power VLSI Design
2.	PEC	MEC25421T	Digital VLSI Architecture
3.	PEC	MEC25422T	Power Semiconductor Devices
4.	PEC	MEC25423T	Power Quality Assessment
5.	PEC	MEC25424T	Power System Reliability
6.	PEC	MEC25425T	Energy Management System

Open Elective-II

Sl.No.	Course Type	Code	Course
1.	OEC	MEC25430T	Audio Video Coding & Compression
2.	OEC	MEC25431T	Deep Learning
3.	OEC	MEC25432T	Mixed Signal VLSI Design
4.	OEC	MEC25433T	Biomedical Signal Processing
5.	OEC	MEC25434T	Energy Management & Audit
6.	OEC	MEC25435T	Solar Technology

Audit Course - II

Sl.No.	Course Type	Code	Course
1.	AU	MEC25204T	Constitution of India
2.	AU	MEC25205T	Pedagogy Studies
3.	AU	MEC25206T	Digital Humanities