Department of Information Technology

II B. Tech I Semester

SUBJECT: DIGITAL ELECTRONICS (201)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C201.1	Understand the fundamentals of semiconductor devices and their characteristics	2-Understand
C201.2	Analyze and design basic analog circuits using diodes, transistors, and amplifiers	5-Evaluate
C201.3	Apply Boolean algebra and logic simplification techniques to design digital circuits	3-Apply
C201.4	Design combinational and sequential logic circuits for real-time applications	5-Evaluate
C201.5	Demonstrate awareness of electronic system applications and communicate technical concepts effectively	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C201.1	3	2	3	3	2							2		3	2
C201.2	3	3	3									2		3	3
C201.3	3	3		3	2							2		3	2
C201.4	3	3	3	3	3							2	2	3	2
C201.5	3	3	3	2								2	3	3	2
Average	**3**	**2.8**	**3**	**2.75**	**2.3**							**2**	**2.5**	**3**	**2.2**

Department of Information Technology

II B. Tech I Semester

SUBJECT: DATA STRUCTURES (C202)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C202.1	Understand basic data structures like arrays, linked lists, stacks, and queues	2-Understand
C202.2	Apply operations such as insertion, deletion, and traversal on linear and non-linear structures	3-Apply
C202.3	Implement searching, sorting, and hashing techniques for efficient data access	3-Apply
C202.4	Design and analyze algorithms for trees and graphs	4-Analyze
C202.5	Demonstrate problem-solving skills and teamwork through programming assignments and projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C202.1	3	2	3	3	2	2			3		3	3	3	3	2
C202.2	2	3	2	3	2	3			2		2	2	3	3	2
C202.3	3	3	2	2	3	2			3		2	3	3	3	2
C202.4	3	3	2	3	3	3			2		2	3	3	3	2
C202.5	2	3	3	3	2	2			2		2	3	2	2	3
Average	**2.6**	**2.8**	**2.4**	**2.8**	**2.4**	**2.4**			**2.4**		**2.2**	**2.8**	**2.8**	**2.8**	**2.2**

Department of Information Technology

II B. Tech I Semester

SUBJECT: COMPUTER ORIENTED STATISTICAL METHODS (C203)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C203.1	Understand probability concepts and apply them to real-world problems	3-Apply
C203.2	Analyze discrete and continuous probability distributions including Binomial, Poisson, and Normal	4-Analyze
C203.3	Apply statistical methods such as hypothesis testing and estimation	3-Apply
C203.4	Use correlation and regression techniques for data analysis	3-Apply
C203.5	Implement statistical algorithms using computational tools and interpret results	4-Analyze

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C203.1	3	3	3	3	3							3	3	3	
C203.2	3	3	3	3	3							3	3	3	
C203.3	3	3										2	3	2	
C203.4	3	3	2	2								3	3	2	
C203.5	3	3	2	2								3	3	3	
Average	**3**	**3**	**2.5**	**2.5**	**3**							**2.8**	**3**	**2.6**	

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II B. Tech I Semester

SUBJECT: Computer Organization and Microprocessor (C204)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C204.1	Understand the basic structure and operation of digital computers	2-Understand
C204.2	Analyze instruction sets and their impact on processor design	4-Analyze
C204.3	Design and evaluate arithmetic and logic units	5-Evaluate
C204.4	Explore control unit design including microprogramming and hardwired control	2-Understand
C204.5	Understand memory organization, I/O systems, and multiprocessor architectures	2-Understand

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C204.1	3	2	2	2	3						2	2	2	3	2
C204.2	3	3	3	2	2						2	2	2	3	2
C204.3	3	3	3	3	2						2	2	3	3	2
C204.4	3	3	3	3	3						2	2	3	3	3
C204.5	3	3	3	3	3						3	2	3	3	2
Average	**3**	**2.8**	**2.8**	**2.6**	**2.6**						**2.2**	**2**	**2.6**	**3**	**2.2**

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II B. Tech I Semester

SUBJECT: Introduction to IoT (C205)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C205.1	Understand IoT architecture, enabling technologies, and communication protocols	2-Understand
C205.2	Analyze sensor networks, embedded systems, and data acquisition techniques	4-Analyze
C205.3	Apply cloud integration and data analytics in IoT systems	3-Apply
C205.4	Design IoT applications for smart cities, healthcare, and industrial automation	5-Evaluate
C205.5	Demonstrate teamwork, documentation, and ethical responsibility in IoT projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C205.1	3	2	3										2	3	3
C205.2	3	3	2										3	3	2
C205.3	3	3	2										3	3	
C205.4	3	3	2										3	3	
C205.5	2	3	3										2	2	3
Average	**2.8**	**2.8**	**2.4**										**2.6**	**2.8**	**2.667**

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II B. Tech I Semester

SUBJECT: Digital Electronics Lab (C206)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C206.1	Demonstrate practical knowledge of electronic components and circuits	3-Apply
C206.2	Design and implement analog circuits such as amplifiers and oscillators	5-Evaluate
C206.3	Construct and test digital circuits including logic gates, flip-flops, and counters	3-Apply
C206.4	Apply troubleshooting techniques and interpret experimental data	4-Analyze
C206.5	Exhibit teamwork, communication, and safety practices in lab environments	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C206.1	3	2	2	2	1	2			2			2	1	3	2
C206.2	3	3	3	2	2	1			2			2	2	3	2
C206.3	3	3	3	3	2	2			2			2	2	3	2
C206.4	3	3	3	3	3	2			2			3	2	3	2
C206.5	2	3	3	3	3	1			2			3	3	3	3
Average	**2.8**	**2.8**	**2.8**	**2.6**	**2.2**	**1.6**			**2**			**2.4**	**2**	**3**	**2.2**

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II B. Tech I Semester

SUBJECT: DATA STRUCTURES LAB (C207)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C207.1	Implement linear data structures such as arrays, stacks, and queues	3-Apply
C207.2	Apply linked lists for dynamic memory management and manipulation	3-Apply
C207.3	Develop programs using trees and graphs for hierarchical and networked data	5-Evaluate
C207.4	Implement searching, sorting, and hashing techniques for efficient data access	3-Apply
C207.5	Demonstrate teamwork, debugging, and documentation skills in lab assignments	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C207.1	3	3	2	2	2	2			3		2	2	3	3	2
C207.2	3	3	3	3	2	2			2		3	2	3	3	2
C207.3	3	3	3	3	2	2			2		3	3	3	3	2
C207.4	3	3	3	3	3	2			2		2	3	3	3	2
C207.5	3	3	3	3	3	3			3		2	3	3	3	3
Average	**3**	**3**	**2.8**	**2.8**	**2.4**	**2.2**			**2.4**		**2.4**	**2.6**	**3**	**3**	**2.2**

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II B. Tech I Semester

SUBJECT: Internet of Things Lab (208)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C208.1	Understand to configure Raspberry Pi	3-Apply
C208.2	Design and implement various embedded system.	5-Evaluate
C208.3	Implement communication protocol.	3-Apply
C208.4	Implement MQ Telemetry Transport protocol	3-Apply
C208.5	Develop program using Python Scripting Language which is used in many IoT devices	5-Evaluate

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C208.1	3	2	3	2	3								2	3	2
C208.2		3	2	2	2								3	3	
C208.3	2	3	2	2	2								3	3	2
C208.4	3	3	2	2	3								3	3	3
C208.5	3	2	3	3	2								2	2	2
Average	**2.75**	**2.6**	**2.4**	**2.2**	**2.4**								**2.6**	**2.8**	**2.25**

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II B. Tech I Semester

SUBJECT: DATA VISUALIZATION - R PROGRAMMING/ POWER BI (C209)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C209.1	Understand the fundamentals of data visualization and the role of tools like R and Power BI.	2-Understand
C209.2	Apply R programming techniques to manipulate, analyze, and visualize datasets.	3-Apply
C209.3	Create interactive dashboards and reports using Power BI for business and engineering applications.	5-Evaluate
C209.4	Interpret visual data representations to support decision-making and communicate insights effectively.	4-Analyze
C209.5	Demonstrate teamwork, documentation, and ethical responsibility in data visualization projects.	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C209.1	3		2	2								2	2	3	
C209.2	3	3	3	2	2							2	3	2	2
C209.3	3	2	2	2	2							2	3	2	2
C209.4	2	2	2	2	2							2	2	3	2
C209.5	3	2	2	1	2							2			3
Average	**2.8**	**2.25**	**2.2**	**1.8**	**2**							**2**	**2.5**	**2.5**	**2.25**

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II B. Tech I Semester

SUBJECT: GENDER SENSITIZATION LAB(C210)

After going through this course, the students will be able to

S. No.	COURSE OUTCOMES	BT Level
C210.1	Develop awareness of gender roles and social constructs	2-Understand
C210.2	Understand the impact of gender on personal and professional relationships	2-Understand
C210.3	Analyze gender-based discrimination and inequalities in various contexts	4-Analyze
C210.4	Demonstrate sensitivity and empathy in communication and behavior	3-Apply
C210.5	Engage in group discussions and activities promoting gender equality	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C210.1						2	2	3		2		3			2
C210.2						2	3	3		2		3			2
C210.3						3	2	3		2		3			3
C210.4						3	2	3		3		3			2
C210.5						3	2	3		3		3			3
Average						**2.6**	**2.2**	**3**		**2.4**		**3**			**2.4**