Department of Information Technology

III B. Tech II Semester

SUBJECT: Introduction to Embedded Systems (C311)

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

S. No.	COURSE OUTCOMES	BT Level
C311.1	Understand the fundamentals of embedded systems and their applications	2-Understand
C311.2	Analyze embedded system components and their interactions	4-Analyze
C311.3	Apply embedded programming concepts using real-time operating systems	3-Apply
C311.4	Design embedded solutions for real-world problems	6-Create
C311.5	Demonstrate teamwork, documentation, and communication in embedded system projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C311.1	2	2	3	2	3								2	2	
C311.2	3	3	3	3	2								3	3	
C311.3	2	3	1	1	2								3	3	
C311.4	3	3	3	1	3								3	2	
C311.5	2	3	3	3	2								3	3	
Average	**2.4**	**2.8**	**2.6**	**2**	**2.4**								**2.8**	**2.6**	

Department of Information Technology

III B. Tech II Semester

SUBJECT: Principles of Compiler Construction (C312)

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

S. No.	COURSE OUTCOMES	BT Level
C312.1	Understand the structure and phases of a compiler	2-Understand
C312.2	Apply lexical analysis techniques using finite automata and regular expressions	3-Apply
C312.3	Implement syntax analysis using top-down and bottom-up parsing methods	3-Apply
C312.4	Analyze syntax-directed translation and intermediate code generation	4-Analyze
C312.5	Evaluate code optimization and target code generation strategies	5-Evaluate

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C312.1	3	2	2		3								3	3	
C312.2	3	3	3		3								3	3	
C312.3	3	3	3		3								3	3	
C312.4	3	3	3		3								3	3	
C312.5	2	2	2		2								2	2	
Average	**2.8**	**2.6**	**2.6**		**2.8**								**2.8**	**2.8**	

Department of Information Technology

III B. Tech II Semester

SUBJECT: Algorithm Design and Analysis(C313)

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

S. No.	COURSE OUTCOMES	BT Level
C313.1	Analyze the time and space complexity of algorithms	4-Analyze
C313.2	Apply divide-and-conquer and greedy strategies to solve problems	3-Apply
C313.3	Design dynamic programming and backtracking algorithms	6-Create
C313.4	Evaluate NP-completeness and approximation algorithms	5-Evaluate
C313.5	Demonstrate teamwork and documentation in algorithmic problem solving	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C313.1	3	3	3	2									3	3	
C313.2	3	3	3	3									3	3	2
C313.3	3	3	3	3									3	3	2
C313.4	3	3	3	3									3	3	3
C313.5	3	3	3	3									3	3	3
Average	**3**	**3**	**3**	**2.8**									**3**	**3**	**2.5**

Department of Information Technology

III B. Tech II Semester

SUBJECT: Internet of Things (C314)

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

S. No.	COURSE OUTCOMES	BT Level
C314.1	Understand IoT architecture, enabling technologies, and communication protocols	2-Understand
C314.2	Analyze sensor networks, embedded systems, and data acquisition techniques	4-Analyze
C314.3	Apply cloud integration and data analytics in IoT systems	3-Apply
C314.4	Design IoT applications for smart cities, healthcare, and industrial automation	6-Create
C314.5	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
C314.1	3	2	3										2	3	3
C314.2	3	3	2										3	3	2
C314.3	3	3	2										3	3	
C314.4	3	3	2										3	3	
C314.5	2	3	3										2	2	3
Average	**2.8**	**2.8**	**2.4**										**2.6**	**2.8**	**2.6**

Department of Information Technology

III B. Tech II Semester

SUBJECT: SOFTWARE TESTING METHODOLOGIES (C315)

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

S. No.	COURSE OUTCOMES	BT Level
C315.1	Understand the principles and objectives of software testing	2-Understand
C315.2	Apply path testing, transaction flow testing, and data flow testing techniques	3-Apply
C315.3	Design test cases using domain testing and logic-based testing strategies	6-Create
C315.4	Evaluate software quality using metrics and test management tools	5-Evaluate
C315.5	Demonstrate teamwork, documentation, and communication in testing projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C315.1	3	2	2	2									3	2	
C315.2	3	3	3	3	2								3	2	2
C315.3	2	3	2	3	3								3	3	2
C315.4	3	3	3	3	2								3	2	2
C315.5	2	2	2	2									2		3
Average	**2.6**	**2.6**	**2.4**	**2.6**	**2.333**								**2.8**	**2.25**	**2.25**

Department of Information Technology

III B. Tech II Semester

SUBJECT: Disaster Preparedness and Planning Management (C316)

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

S. No.	COURSE OUTCOMES	BT Level
C316.1	Understand environmental hazards, disasters, and stress factors	2-Understand
C316.2	Analyze types of natural and man-made disasters	4-Analyze
C316.3	Apply ecological approaches to disaster management	3-Apply
C316.4	Evaluate disaster preparedness and mitigation strategies	5-Evaluate
C316.5	Demonstrate ethical responsibility and teamwork in disaster response planning	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C316.1	2						2	2	2		2				2
C316.2	2					2		2	2		2				2
C316.3									2		2				2
C316.4									3		2				2
C316.5	3						2		3		2				2
Average	**2.333**					**2**	**2**	**2**	**2.4**		**2**				**2**

Department of Information Technology

III B. Tech II Semester

SUBJECT: Embedded Systems & Internet of Things Lab (C317)

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

S. No.	COURSE OUTCOMES	BT Level
C317.1	Understand to configure Raspberry Pi	3-Apply
C317.2	Design and implement various embedded system.	6-Create
C317.3	Implement communication protocol.	3-Apply
C317.4	Implement MQ Telemetry Transport protocol	3-Apply
C317.5	Develop program using Python Scripting Language which is used in many IoT devices	6-Create

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C317.1	3	2	3	2	3								2	3	2
C317.2		3	2	2	2								3	3	
C317.3	2	3	2	2	2								3	3	2
C317.4	3	3	2	2	3								3	3	3
C317.5	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**

Department of Information Technology

III B. Tech II Semester

SUBJECT: Compiler Construction Lab (C318)

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

S. No.	COURSE OUTCOMES	BT Level
C318.1	Design and implement lexical analyzers using Lex	6-Create
C318.2	Develop syntax analyzers using Yacc and parsing techniques	6-Create
C318.3	Implement LL and LR parsers for grammar analysis	3-Apply
C318.4	Generate intermediate code and perform syntax-directed translation	6-Create
C318.5	Demonstrate teamwork, documentation, and communication in compiler projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C318.1	3	2	2		3								3	3	
C318.2	3	3	3		3								3	3	
C318.3	3	3	3		3								3	3	
C318.4	3	3	3		3								3	3	
C318.5	2	2	2		2								2	2	
Average	**2.8**	**2.6**	**2.6**		**2.8**								**2.8**	**2.8**	

Department of Information Technology

III B. Tech II Semester

SUBJECT: SOFTWARE TESTING METHODOLOGIES LAB (C319)

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

S. No.	COURSE OUTCOMES	BT Level
C319.1	Understand the need for software testing and its role in software quality assurance	2-Understand
C319.2	Design and execute test cases using white-box and black-box testing techniques	6-Create
C319.3	Apply path testing, boundary value analysis, and equivalence class partitioning	3-Apply
C319.4	Use automation tools to perform regression and performance testing	3-Apply
C319.5	Demonstrate teamwork, documentation, and communication in testing projects	3-Apply

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C319.1	3	3	3		2				2	2	2	2		2	2
C319.2	3	3	3		2				2	2	2	2		3	2
C319.3	3	3	3		3				3	3	2	3		3	2
C319.4	3	3	3		3				3	3	3	3		3	2
C319.5	2	2	2		2				3	3	3	2		2	3
Average	**2.8**	**2.8**	**2.8**		**2.4**				**2.6**	**2.6**	**2.4**	**2.4**		**2.6**	**2.2**

Department of Information Technology

III B. Tech II Semester

SUBJECT: ENVIRONMENTAL SCIENCE (C320)

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

S. No.	COURSE OUTCOMES	BT Level
C320.1	Understand the structure and function of ecosystems	2-Understand
C320.2	Analyze natural resources and their sustainable use	4-Analyze
C320.3	Evaluate biodiversity and its conservation strategies	5-Evaluate
C320.4	Examine environmental pollution and control measures	4-Analyze
C320.5	Demonstrate awareness of environmental ethics and disaster management	2-Understand

CO-PO MAPPING

CO	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
C320.1	3	2	1	2	1								2	1	2
C320.2	3	3	2	3	2								1	2	3
C320.3	3	3	3	3	2								2	2	3
C320.4	3	3	3	3	3								2	3	3
C320.5	2	2	2	2	2								3	3	3
Average	**2.8**	**2.6**	**2.2**	**2.6**	**2**								**2**	**2.2**	**2.8**