



Course Outcomes & CO-PO-PSO Mapping and Justification

Subject	MICROCONTROLLER AND EMBEDDED SYSTEMS	18CS44
COURSE OUTCOMES:		
CO No.	On completion of this course, students will be able to:	Cognitive Level
18CS44.1	Understand the architecture and features of ARM Embedded systems.	L2 Understand
18CS44.2	Apply the knowledge gained for Programming ARM for different applications and interfacing external devices.	L3 Apply
18CS44.3	Understand the basic hardware components and their selection method based on the characteristics and attributes of an embedded system.	L2 Understand
18CS44.4	Understand the hardware- software co-design with firm ware design approaches in embedded system applications.	L2 Understand
18CS44.5	Understand the need of real time operating system for embedded system applications and use IDE tool Kiel to develop program.	L2 Understand

CO-PO-PSO MAPPING

CO No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
18CS44.1	2	2	-	-	-	-	-	-	-	-	-	1	2	-	-
18CS44.2	2	2	-	-	-	-	-	-	-	-	-	1	2	-	-
18CS44.3	2	2	-	-	-	-	-	-	-	-	-	1	2	-	-
18CS44.4	2	2	-	-	-	-	-	-	-	-	-	1	2	-	-
18CS44.5	2	2	-	-	-	-	-	-	-	-	-	1	2	-	-
Avg. Mapping	2.0	2.0	-	-	-	-	-	-	-	-	-	1.0	2.0	-	-

CO-PO-PSO JUSTIFICATION

CO No.	PO/PSO	CL	Justification
18CS44.1	PO1	2	Moderately having the Knowledge of the fundamental concepts of pointer usage, data abstraction, arrays, structures, unions, dynamic memory allocation and algorithms that helps in solving complex engineering problems.
	PO2	2	Moderately the student will know Principles of mathematics and engineering sciences are used in various aspects of pointer usage, data abstraction, arrays, structures, unions, dynamic memory allocation and algorithm approaches.
	PO12	1	Slightly the student will become aware of the need for lifelong learning and the continued upgrading of technical knowledge of pointer usage, data abstraction, arrays, structures, unions, dynamic memory allocation and algorithms.
	PSO1	2	Moderately the student will study of fundamental concepts of pointer usage, data abstraction, arrays, structures, unions, dynamic memory allocation and algorithms to analyse and develop algorithms and implement them using high-level programming languages.
18CS44.2	PO1	2	Moderately having the Knowledge of the fundamental concepts of linear Data Structures that helps in solving complex engineering problems.
	PO2	2	Moderately the student will know Principles of mathematics and engineering sciences are used in various aspects of linear Data Structures approaches.
	PO12	1	Slightly the student will become aware of the need for lifelong learning and the continued upgrading of technical knowledge of stack and queues with its operations.
	PSO1	2	Moderately the student will study of fundamental concepts of stack, queue along with its operations to analyse and develop algorithms and implement them using high-level programming languages.
18CS44.3	PO1	2	Moderately having the Knowledge of the fundamental concepts of linear data structures that helps in solving complex engineering problems.
	PO2	2	Moderately the student will know Principles of mathematics and engineering sciences are used in various aspects of linear Data Structures approaches.
	PO12	1	Slightly the student will become aware of the need for lifelong learning and the continued upgrading of technical knowledge of Singly, Doubly, Circular Singly linked lists and its operations.
	PSO1	2	Moderately the student will study of fundamental concepts of Singly, Doubly, Circular Singly linked lists along with its operations to analyse and

			develop algorithms and implement them using high-level programming languages.
18CS44.4	PO1	2	Moderately having the Knowledge of the fundamental concepts of Non-linear data structures that helps in solving complex engineering problems.
	PO2	2	Moderately the student will know Principles of mathematics and engineering sciences are used in various aspects of non-linear Data Structures approaches.
	PO12	1	Slightly the student will become aware of the need for lifelong learning and the continued upgrading of technical knowledge of concept of tree, binary tree traversals, threaded binary tree, Selection Trees, Forests and graphs.
	PSO1	2	Moderately the student will study of fundamental concept of tree, binary tree traversals, threaded binary tree, Selection Trees, Forests and graphs to analyse and develop algorithms and implement them using high-level programming languages.
18CS44.5	PO1	2	Strongly having the Knowledge of the fundamental concept of tree, binary tree traversals, threaded binary tree, Selection Trees, Forests and graphs that helps in solving complex engineering problems
	PO2	2	Moderately the student will know Principles of mathematics and engineering sciences are used in various aspects of non-linear Data Structures approaches.
	PO12	1	Slightly the student will become aware of the need for lifelong learning and the continued upgrading of technical knowledge of the concept of Priority Queues, and types of Heaps.
	PSO1	2	Moderately the student will study of fundamental the concept of Priority Queues, and types of Heaps to analyse and develop algorithms and implement them using high-level programming languages.

Prepared by

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