

R 22



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Kandlakoya, Medchal, Hyderabad-501401
Department of CSE(AI&ML)
R 22 B.Tech Course List (22-26 Batch)



I SEMESTER			
S.No	Course Code	Course Title	Faculty Names
1	C111	Matrices and Calculus	H&S
2	C112	Applied Physics	H&S
3	C113	Programming for Problem Solving	H&S
4	C114	English for Skill Enhancement	H&S
5	C115	IT Workshop	H&S
6	C116	Applied Physics Laboratory	H&S
7	C117	Programming for Problem Solving Laboratory	H&S
8	C118	English Language and Communication Skills Laboratory	H&S
9	C119	Basic Elements of Engineering and Technology	
II SEMESTER			
10	C121	Ordinary Differential Equations and Vector Calculus	H&S
11	C122	Engineering Chemistry	H&S
12	C123	Data Structures	H&S
13	C124	Basic Electrical and Electronics Engineering	H&S
14	C125	Computer Aided Engineering Graphics	H&S
15	C126	Engineering Chemistry Laboratory	H&S
16	C127	Data Structures Laboratory	H&S
17	C128	Basic Electrical and Electronics Engineering Laboratory	H&S
18	C129	Environmental Science	H&S
III SEMESTER			
19	C211	Discrete Mathematics	Md. Hafeena
20	C212	Programming with Python	V.N.V. Sri Harsha
21	C213	Computer Organization and Architecture	G. Aravind
22	C214	Software Engineering	U. Saritha
23	C215	Operating Systems	S. Kiran
24	C216	Python Programming Lab	V.N.V. Sri Harsha
25	C217	Operating Systems Lab	S. Kiran
26	C218	Software Engineering Lab	U. Saritha
27	C219	Skill Development Course (Node JS/ React JS/ Django)	Prashanth Mutalik Desai
28	C21A	Constitution of India	Dr. M.Kashiram
IV SEMESTER			
29	C221	Mathematical and Statistical Foundations	M. Nagesh
30	C222	Automata Theory and Compiler Design	G.Parvathi Devi
31	C223	Database Management Systems	B. Swaroopa Rani
32	C224	Introduction to Artificial Intelligence	B. Prashanth
33	C225	Object Oriented Programming through Java	S. Ramchandra Reddy
34	C226	Database Management Systems Lab	B. Swaroopa Rani

35	C227	Java Programming Lab	S. Ramchandra Reddy
36	C228	Real-time Research Project/Field-Based Research/ Project	
37	C229	Skill Development Course (Prolog/ Lisp/ Pyswip	V.N.V. Sri Harsha
38	C22A	Gender Sensitization Lab	K. Jyothi



Coordinator



HOD CSE(AI&ML)

Head
Department of CSE (AI & ML)
CMR Technical Campus
Kandlakoya (V), Medchal Road,
Hyderabad, Telangana - 501 401.

DEPARTMENT OF CSE(AI&ML)_

CO-PSO Mapping

Course Name : Discrete Mathematics

Regulation : R22

Year & Sem: 2023 , III sem

Branch: CSE(AI&ML)

Course Coordinator Name : Md.Hafeena

Course Code: 22MA301BS

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Understand and construct precise mathematical proofs
CO2	Apply logic and set theory to formulate precise statements.
CO3	Analyze and solve counting problems on finite and discrete structures
CO4	Describe and manipulate sequences
CO5	Apply graph theory in solving computing problems

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	2	1
CO3	3	-	2
CO4	3	2	1
CO5	3	3	-
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High

Course Coordinator

Module Coordinator

Ho D CSE(AI&ML)

Hafeena

[Signature]

[Signature]

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Discrete Mathematics

Regulation: R22

Year & Sem: 2023 , III sem

Branch:CSE(AI&ML)

Course Coordinator Name : Md.Hafeena

Course Code : 22MA301BS

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Understand and construct precise mathematical proofs
CO2	Apply logic and set theory to formulate precise statements.
CO3	Analyze and solve counting problems on finite and discrete structures
CO4	Describe and manipulate sequences
CO5	Apply graph theory in solving computing problems

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	-	-	-	-	-	-	-	-	-	-	-
CO2	3	2	1	2	-	-	-	-	-	-	-	-
CO3	3	2	-	-	-	-	-	-	-	-	-	-
CO4	3	2	2	2	-	-	-	-	-	-	-	-
CO5	3	-	-	2	-	-	-	-	-	-	-	-
Average	3	2	0.6	1.2	-	-	-	-	-	-	-	-

Note : 1- Low , 2- Moderate ,3- High

Course Coordinator

Module Coordinator

HoD CSE(AI&ML)

Md.Hafeena

[Signature]

[Signature]

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name: Programming With Python

Regulation: R22

Year & Sem: II & I

Branch: CSE(AI&ML)

Course Coordinator Name: V N V Sri Harsha

Course Code: 22AM303PC

Course Outcomes:

At the end of the Course, Student will be able to

CO#	Course Outcome
CO1	Examine Python syntax and semantics and flow control.
CO2	Demonstrate proficiency in handling Strings and Arrays.
CO3	Develop Python Programs using core data structures.
CO4	Conduct experiments on file handling, exception handling and modules.
CO5	Interpret the concepts of Object-Oriented Programming in Python.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Programming With Python

Regulation:R22

Year & Sem: II & I

Branch:CSE(AI&ML)/AIML

Course Coordinator Name:V N V Sri Harsha

Course Code: 22AM303PC

Course Outcomes:

At the end of the course,student will be able to	
CO#	Course Outcome
CO1	Examine Python syntax and semantics and flow control.
CO2	Demonstrate proficiency in handling Strings and Arrays.
CO3	Develop Python Programs using core data structures.
CO4	Conduct experiments on file handling, exception handling and modules.
CO5	Interpret the concepts of Object-Oriented Programming in Python.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	1	2	-	1	1	1	2
CO2	3	3	3	3	2	1	2	-	1	1	1	2
CO3	3	3	3	3	2	1	2	-	1	1	1	2
CO4	3	3	3	3	2	1	2	-	1	1	1	2
CO5	3	3	3	3	2	1	2	-	1	1	1	2
Average	3	3	3	3	2	1	2	-	1	1	1	2

Note: 1- Low, 2- Moderate,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : Computer Organization and Architecture

Regulation : R22

Year & Sem: 2022 , III sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Aravind

Course Code: 22AM304PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Understandthebasicsofinstructionssetsandtheirimpactonprocessordesign.
CO2	Demonstrate an understanding of the design of the functional units of a digital computer system.
CO3	Evaluate cost performance and design trade-offs in designing and constructing a computer processor including memory
CO4	Design a pipeline for consistent execution of instructions with minimum hazards
CO5	Recognize and manipulate representations of numbers Stored in digital computers

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	2
CO3	3	3	2
CO4	3	3	2
CO5	3	3	2
Average	3	3	2

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Computer Organization and Architecture

Regulation:R22

Year & Sem: 2022 , III sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Aravind

Course Code : 22AM304PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Understandthebasicsofinstructionssetsandtheirimpactonprocessordesign.
CO2	Demonstrate an understanding of the design of the functional units of a digital computer system.
CO3	Evaluate cost performance and design trade-offs in designing and constructing a computer processor including memory
CO4	Design a pipeline for consistent execution of instructions with minimum hazards
CO5	Recognize and manipulate representations of numbers Stored in digital computers

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	3
CO2	3	3	3	2	2	-	-	-	-	-	-	3
CO3	3	3	3	2	2	-	-	-	-	-	-	3
CO4	3	2	3	2	2	-	-	-	-	-	-	3
CO5	3	2	3	2	2	-	-	-	-	-	-	3
Average	3	2	3	2	2	-	-	-	-	-	-	3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : SOFTWARE ENGINEERING

Regulation : R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name : U.SARITHA

Course Code: 22AM302PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Define the end-user requirements into the system
CO2	Translate and apply the process model based on software requirements.
CO3	Build the design of a systematic models
CO4	Categories the testing strategies and generate a report.
CO5	Formulate the metrics for process and plan

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	2	2
CO5	3	2	3
Average	3	2	2

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : SOFTWARE ENGINEERING

Regulation : R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name : U.SARITHA

Course Code: 22AM302PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Define the end-user requirements into the system
CO2	Translate and apply the process model based on software requirements.
CO3	Build the design of a systematic models
CO4	Categories the testing strategies and generate a report.
CO5	Formulate the metrics for process and plan

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	2	3	2	1	-	2	2	2	3
CO2	3	3	3	2	3	-	1	-	-	3	3	3
CO3	3	3	3	3	3	1	2	2	3	3	2	3
CO4	3	3	3	3	3	2	-	-	3	-	3	3
CO5	3	3	3	3	3	-	-	-	2	-	2	3
Average	3	3	2.8	2.6	3	1	0.8	2	2	1.6	2.4	3

Note : 1- Low , 2- Moderate ,3- High



Course Coordinator



Module Coordinator



HoD CSE(AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



ESTD: 2009

(22-26)
P22 vinoda nam

DEPARTMENT OF CSE (AI&ML)

Course Name: Operating System

Regulation: R22

Year & Sem: II-I

Branch: CSE (AI&ML)

Course Coordinator Name: S.KIRAN

Course Code: 22AM305PC

CO-PO Mapping

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Define the operating system concepts.
CO2	Compare different CPU Scheduling Algorithms.
CO3	Analyze process management and synchronization mechanisms.
CO4	Determine different memory management techniques.
CO5	Examine file system interface and operations.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	3	-	-	-	-	-	-	-	-	-
CO2	3	2	3	1	-	-	-	-	-	-	-	-
CO3	2	2	2	-	-	-	-	-	-	-	-	-
CO4	2	3	3	1	-	-	-	-	-	-	-	-
CO5	3	2	3	-	-	-	-	-	-	-	-	-
Average	2.4	2.3	2.8	0.4	-	-	-	-	-	-	-	-

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Operating System
Year & Sem: II-I

Regulation: R22
Branch: CSE (AI&ML)

Course Coordinator Name: S.KIRAN

Course Code: 22AM305PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Define the operating system concepts.
CO2	Compare different CPU Scheduling Algorithms.
CO3	Analyze process management and synchronization mechanisms.
CO4	Determine different memory management techniques.
CO5	Examine file system interface and operations.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	1	2	2
CO2	2	3	3
CO3	3	3	2
CO4	3	2	3
CO5	2	2	3
Average	2.2	2.4	2.6

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

1231 (22-24)
vinoda nam

ESTD: 2009



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name:Python Lab

Regulation:R22

Year & Sem: II & I

Branch:CSE(AI&ML)

Course Coordinator Name:V N V Sri Harsha

Course Code:22AM306PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Define python syntax, semantics and flow control.
CO2	Demonstrate proficiency in handling strings, list tuples and arrays
CO3	Develop python programs using core data structures.
CO4	Conduct experiments on file handling, exception handling and modules.
CO5	Design the application specific codes using python.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low,2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Python Lab

Regulation:R22

Year & Sem: II & I

Branch:CSE(AI&ML)/AIML

Course Coordinator Name:V N V Sri Harsha

Course Code:22AM306PC

Course Outcomes:

At the end of the course,student will be able to	
CO#	Course Outcome
CO1	Define python syntax, semantics and flow control.
CO2	Demonstrate proficiency in handling strings, list tuples and arrays
CO3	Develop python programs using core data structures.
CO4	Conduct experiments on file handling, exception handling and modules.
CO5	Design the application specific codes using python.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	1	2	-	1	1	1	2
CO2	3	3	3	3	2	1	2	-	1	1	1	2
CO3	3	3	3	3	2	1	2	-	1	1	1	2
CO4	3	3	3	3	2	1	2	-	1	1	1	2
CO5	3	3	3	3	2	1	2	-	1	1	1	2
Average	3	3	3	3	2	1	2	-	1	1	1	2

Note: 1- Low, 2- Moderate,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



27/11/2022 (22-26)
K. Vinod Kumar

CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name:: Operating System Lab

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: S.Kiran

Course Code: 20CS406PC

Course Outcomes:

At the end of the Course, Student will be able to	
	Course Outcome
CO1	Implement Linux System calls using C
CO2	Simulate basic operating system concepts like scheduling, memory management.
CO3	Implement the Producer – Consumer problem
CO4	Simulate Bankers Algorithm for Deadlock
CO5	Simulate the memory management techniques

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2
CO5	3	3	3
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name:: Operating System Lab

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name:S.Kiran

Course Code: 20CS406PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Implement Linux System calls using C
CO2	Simulate basic operating system concepts like scheduling, memory management.
CO3	Implement the Producer – Consumer problem
CO4	Simulate Bankers Algorithm for Deadlock
CO5	Simulate the memory management techniques

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3							3

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : SOFTWARE ENGINEERING LAB

Regulation : R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name : U.SARITHA

Course Code: 22AM302PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Translate end-user requirements into system and software requirements.
CO2	Design the Software Configuration Management and Risk Management
CO3	Measure the high-level design of the system from the software requirements
CO4	Develop awareness of testing problems with testing report
CO5	Demonstrate the sample project.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	2	2
CO5	3	2	3
Average	3	2	2.2

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : SOFTWARE ENGINEERING-LAB

Regulation : R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name : U.SARITHA

Course Code: 22AM302PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Translate end-user requirements into system and software requirements.
CO2	Design the Software Configuration Management and Risk Management
CO3	Measure the high-level design of the system from the software requirements
CO4	Develop awareness of testing problems with testing report
CO5	Demonstrate the sample project.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	2	3	2	1	-	2	2	2	3
CO2	3	3	3	2	3	2	-	-	-	-	-	3
CO3	3	3	3	3	3	1	2	-	3	3	2	3
CO4	3	3	3	3	3	2	-	-	3	-	3	3
CO5	3	3	3	3	3	1	-	-	3	3	2	3
Average	3	3	2.8	2.6	3	1.6	0.6	-	2.2	1.6	1.8	3

Note : 1- Low , 2- Moderate ,3- High



Course Coordinator



Module Coordinator



HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : Skill Development Course

Regulation : R22

Year & Sem: 2023 , III sem

Branch: CSE(AI&ML)

Course Coordinator Name : Prashanth Mutalik Desai

Course Code: 22AM309PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Define and build a custom website with HTML, CSS, and Bootstrap and little JavaScript.
CO2	Demonstrate Advanced features of JavaScript and learn about JDBC
CO3	Develop Server – side implementation using Java technologies like
CO4	Compile the server – side implementation using Node JS.
CO5	Design a Single Page Application using React.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	2
CO3	3	3	2
CO4	3	3	2
CO5	3	3	2
Average	3	3	2

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Skill Development Course

Regulation:R22

Year & Sem: 2023 , III sem

Branch: CSE(AI&ML)

Course Coordinator Name : Prashanth Mutalik Desai

Course Code : 22AM309PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Define and build a custom website with HTML, CSS, and Bootstrap and little JavaScript.
CO2	Demonstrate Advanced features of JavaScript and learn about JDBC
CO3	Develop Server – side implementation using Java technologies like
CO4	Compile the server – side implementation using Node JS.
CO5	Design a Single Page Application using React.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	1	1	1	2	1	2	3
CO2	3	3	3	2	2	1	1	1	2	1	2	3
CO3	3	3	3	2	2	1	1	1	2	1	2	3
CO4	3	2	3	2	2	1	1	1	2	1	2	3
CO5	3	2	3	2	2	1	1	1	2	1	2	3
Average	3	2	3	2	2	1	1	1	2	1	2	3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Constitution of India

Regulation: R22

Year & Sem: II-I

Branch: CSE (AI&ML)

Course Coordinator Name: Dr.M.Kashiram

Course Code: 22EN310MC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Outline the evolution of Constitution.
CO2	Relate constitutional fundamentals with the present Era
CO3	Analyses Liberalism Federalism and Socialism.
CO4	Infer the knowledge of Administration and Governance.
CO5	Appraise and address the role of governments

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	-	-	1
CO2	-	3	-
CO3	1	-	3
CO4	1	2	2
CO5	-	-	2
Average	1	2	2

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Constitution of India

Regulation: R20

Year & Sem: II-I

Branch: CSE (AI&ML)

Course Coordinator Name: Dr.M.Kashiram

Course Code: 22EN310MC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Outline the evolution of Constitution.
CO2	Relate constitutional fundamentals with the present Era
CO3	Analyses Liberalism Federalism and Socialism.
CO4	Infer the knowledge of Administration and Governance.
CO5	Appraise and address the role of governments

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	1	2	-	-	2	-	3	-	-	-	1
CO2	-	1	2	-	-	2	-	3	-	1	-	1
CO3	-	-	-	1	2	2	-	3	3	-	-	-
CO4	-	1	2	-	-	2	-	3	-	2	-	2
CO5	1	1	2	-	2	2	2	3	2	2	2	-
Average	1	1	2	1	2	2	2	3	2.5	1	2	1

Note: 1- Low, 2- Moderate, 3- High



Course Coordinator



Module Coordinator



HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Mathematical and Statistical Foundations

Regulation: R22

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name: Dr.K.Bhayga Lakshmi

Course Code: 22AM401PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Apply the concepts of probability and random variables
CO2	Analyse the concept of probability distributions to some case studies.
CO3	Formulate and solve problems by apply statistical methods for analyzing experimental data.
CO4	Demonstrate the concept of estimation and distinguish regression analysis and to compute and interpret the coefficient of correlation.
CO5	Examine the given statistical hypothesis.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	1	1	-
CO2	1	1	-
CO3	1	1	-
CO4	1	1	-
CO5	1	1	-
Average	1	1	-

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Mathematical and Statistical Foundations

Regulation: R22

Year & Sem : II-II

Branch: CSE (AI&ML)

Course Coordinator Name: Dr.K.Bhayga Lakshmi

Course Code: 22AM401PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Apply the concepts of probability and random variables
CO2	Analyse the concept of probability distributions to some case studies.
CO3	Formulate and solve problems by apply statistical methods for analyzing experimental data.
CO4	Demonstrate the concept of estimation and distinguish regression analysis and to compute and interpret the coefficient of correlation.
CO5	Examine the given statistical hypothesis.


CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	-	-	-	-	-	-	-	-	-	-
CO2	3	2	-	-	-	-	-	-	-	-	-	-
CO3	3	2	-	-	-	-	-	-	-	-	-	-
CO4	3	2	-	-	-	-	-	-	-	-	-	-
CO5	3	2	-	-	-	-	-	-	-	-	-	-
Average	3	2	-	-	-	-	-	-	-	-	-	-

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name: Advanced Theory of Computation

Regulation: R22

Year & Sem: 2024, VI sem

Branch: CSE(AI&ML)

Course Coordinator Name: G Parvathi Devi

Course Code:22AM401PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Define about the finite state machines for modeling and solving computing problems
CO2	Design context free grammars for formal languages
CO3	Compare decidability and undecidability.
CO4	Demonstrate the knowledge of patterns, tokens & regular expressions for lexical analysis.
CO5	Evaluate skills in using lexical tool and design LR parsers.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	2	2
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate, 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Advanced Theory of Computation

Regulation: R22

Year & Sem:2024 , VI sem

Branch:CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code : 22AM401PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Define about the finite state machines for modeling and solving computing problems
CO2	Design context free grammars for formal languages
CO3	Compare decidability and undecidability.
CO4	Demonstrate the knowledge of patterns, tokens & regular expressions for lexical analysis.
CO5	Evaluate skills in using lexical tool and design LR parsers.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	2
CO2	3	3	3	2	2	-	-	-	-	-	-	1
CO3	3	3	2	2	2	-	-	-	-	-	-	2
CO4	3	2	3	2	2	-	-	-	-	-	-	1
CO5	3	3	3	2	2	-	-	-	-	-	-	2
Average	3	3	3	2	2	-	-	-	-	-	-	2

Note : 1- Low , 2- Moderate ,3- High

Course Coordinator

Module Coordinator

HoD CSE(AI&ML)

R22 (22-23)
11/20/2023

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : DBMS

Regulation : R22

Year & Sem: II & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.SWAROOPA RANI

Course Code: 22AM403PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Design a database conceptually using ER Diagrams.
CO2	Design a database using Relational Model.
CO3	Make use of SQL for managing databases.
CO4	Summarize different transaction processing and Concurrency control mechanisms.
CO5	Compare different file organization methods.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low ,2- Moderate , 3-High

Swara
Course Coordinator

PS
Module Coordinator

ch
HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : DBMS

Regulation : R22

Year & Sem: II & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.SWAROOPA RANI

Course Code: 22AM403PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Design a database conceptually using ER Diagrams.
CO2	Design a database using Relational Model.
CO3	Make use of SQL for managing databases.
CO4	Summarize different transaction processing and Concurrency control mechanisms.
CO5	Compare different file organization methods.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	-	-	-	-	-	-
CO2	3	3	3	3	3	-	-	-	-	-	-	-
CO3	3	3	3	3	3	-	-	-	-	-	-	-
CO4	3	3	3	3	2	-	-	-	-	-	-	-
CO5	3	3	3	3	3	-	-	-	-	-	-	-
Average	3	3	3	3	3	-	-	-	-	-	-	-

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : Introduction To Artificial Intelligences

Regulation : R22

Year & Sem: 2024 ,VI sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code:22AM404PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Formulate an efficient problem space for a problem expressed in natural language.
CO2	Define search algorithm for a problem solving and estimate the performance analysis.
CO3	Apply knowledge using the appropriate technique for a given problem.
CO4	Build AI techniques to solve problems of game playing and machine learning.
CO5	Formulate uncertain problem solving using probability

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	3	2
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Introduction To Artificial Intelligences

Regulation:R22

Year & Sem:2024 ,VI sem

Branch:CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code : 22AM404PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Formulate an efficient problem space for a problem expressed in natural language.
CO2	Define search algorithm for a problem solving and estimate the performance analysis.
CO3	Apply knowledge using the appropriate technique for a given problem.
CO4	Build AI techniques to solve problems of game playing and machine learning.
CO5	Formulate uncertain problem solving using probability

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	2
CO2	3	3	3	2	2	-	-	-	-	-	-	2
CO3	3	3	2	2	2	-	-	-	-	-	-	2
CO4	3	2	3	2	2	-	-	-	-	-	-	1
CO5	2	3	3	2	2	-	-	-	-	-	-	2
Average	3	3	3	2	2	-	-	-	-	-	-	2

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

Dr. (S.R.) G. Ravindran



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : OOPS THROUGH JAVA

Regulation : R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name : S.RAMCHANDRAREDDY

Course Code: 20CS303PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Solve real world problems using OOP techniques.
CO2	Apply the packages and interfaces, streams in programs.
CO3	Develop exceptions, multithreaded applications with synchronization.
CO4	Develop the application using collection framework.
CO5	Design GUI based applications using applets and swings.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	-
CO3	3	3	-
CO4	3	3	2
CO5	3	2	1
Average	3	3	1

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HOD CSE (AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: OOPS THROUGH JAVA

Regulation: R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name: S.RAMCHANDRAREDDY

Course Code: 20CS303PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Solve real world problems using OOP techniques.
CO2	Apply the packages and interfaces, streams in programs.
CO3	Develop exceptions, multithreaded applications with synchronization.
CO4	Develop the application using collection framework.
CO5	Design GUI based applications using applets and swings.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	3	3	-	-	-	-	-	-	1
CO2	3	2	2	3	2	-	-	-	-	-	-	1
CO3	2	3	1	2	3	-	-	-	-	-	-	1
CO4	3	2	2	3	1	-	-	-	-	-	-	1
CO5	2	3	3	2	3	-	-	-	-	-	-	1
Average	3	2	2	3	2	-	-	-	-	-	-	1

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)



(22-26)

CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana

ESTD: 2009



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : DBMS Lab

Regulation : R22

Year & Sem: II & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.SWAROOPA RANI

Course Code:22AM406PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Design database schema for a given application and apply normalization.
CO2	Acquire skills in using SQL commands for data definition and data manipulation.
CO3	Develop solutions for database applications using procedures.
CO4	Make use of Cursors and triggers to demonstrate database applications.
CO5	Perform queries using Aggregation function.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : DBMS Lab

Regulation : R22

Year & Sem: II & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.SWAROOPA RANI

Course Code:22AM406PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Design database schema for a given application and apply normalization.
CO2	Acquire skills in using SQL commands for data definition and data manipulation.
CO3	Develop solutions for database applications using procedures.
CO4	Make use of Cursors and triggers to demonstrate database applications.
CO5	Perform queries using Aggregation function.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	-	-	-	-	-	-
CO2	3	3	3	3	3	-	-	-	-	-	-	-
CO3	3	3	3	3	3							
CO4	3	3	3	3	3							
CO5	3	3	3	3	3							
Average	3	3	3	3	3	-	-	-	-	-	-	-

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
 Accredited by NBA & NAAC with 'A' Grade
 Approved by AICTE, New Delhi and JNTU, Hyderabad
 Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana

R22 (R22-26)
For navigation



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name: OOPS THROUGH JAVA LAB

Regulation: R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name: S.RAMCHANDRAREDDY

Course Code: 22AM407PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Explain the programs for solving real world problems using Java OOP principles.
CO2	Design programs using Exceptional Handling approach.
CO3	Compile program on multithreaded applications.
CO4	Construct Graphical User Interfaces using applets and swing control.
CO5	Experiment with all mouse events.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High

SRR
Course Coordinator

PS
Module Coordinator

ML
HOD CSE (AI&ML)



DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: OOPS THROUGH JAVA LAB

Regulation: R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name: S.RAMCHANDRAREDDY

Course Code: 22AM405PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Explain the programs for solving real world problems using Java OOP principles.
CO2	Design programs using Exceptional Handling approach.
CO3	Compile program on multithreaded applications.
CO4	Construct Graphical User Interfaces using applets and swing control.
CO5	Experiment with all mouse events.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	3	-	-	-	-	-	-	2
CO2	2	3	2	2	2	-	-	-	-	-	-	2
CO3	3	3	3	3	3	-	-	-	-	-	-	2
CO4	3	3	3	3	3	-	-	-	-	-	-	2
CO5	3	3	3	3	3	-	-	-	-	-	-	2
Average	3	3	3	3	3	-	-	-	-	-	-	2

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HOD CSE (AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
 Accredited by NBA & NAAC with 'A' Grade
 Approved by AICTE, New Delhi and JNTU, Hyderabad
 Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Gender Sensitization Lab

Regulation: R22

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name:k.Jyothi

Course Code: 22EN410MC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Students will have developed a better understanding of important issues related to gender in contemporary India.
CO2	Students will attain a finer grasp of how gender discrimination works in our society and how to counter it
CO3	Students will acquire insight into the gendered division of labour and its relation to politics and economics
CO4	Men and women students and professionals will be better equipped to work and live together as equals .
CO5	Students will develop a sense of appreciation of women in all walks of life

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	-	-	1
CO2	-	3	-
CO3	1	-	3
CO4	1	2	2
CO5	-	-	2
Average	1	2.5	2

Note: 1-Low, 2- Moderate, 3-High


 Course Coordinator


 Module Coordinator


 HoD CSE (AI&ML)



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Gender Sanitization Lab

Regulation: R22

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name: K.Jyothi

Course Code: 22EN410MC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Students will have developed a better understanding of important issues related to gender in contemporary India.
CO2	Students will attain a finer grasp of how gender discrimination works in our society and how to counter it
CO3	Students will acquire insight into the gendered division of labour and its relation to politics and economics
CO4	Men and women students and professionals will be better equipped to work and live together as equals .
CO5	Students will develop a sense of appreciation of women in all walks of life

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	1	2	-	-	2	-	3	-	-	-	1
CO2	-	1	2	-	-	2	-	3	-	1	-	1
CO3	-	-	-	1	2	2	-	3	3	-	-	-
CO4	-	1	2	-	-	2	-	3	-	2	-	2
CO5	1	1	2	-	2	2	2	3	2	2	2	-
Average	1	1	2	2	2	2	2	3	2	2	2	2

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)_

CO-PSO Mapping

Course Name: Design & Analysis Algorithms

Regulation: R20

Year & Sem: 2nd year , 1 sem

Branch: CSE(AI&ML)

Course Coordinator Name: Dr.K. Mahesh

Course Code: 20CS301PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Analyze the algorithms in terms of space and time
CO2	Design the algorithm using divide and conquer and greedy approach
CO3	Apply dynamic programming strategy to problems.
CO4	Apply back tracking technique and branch and bound to problems.
CO5	Construct the algorithm using non-deterministic approaches

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	2	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	2
Average	3	2	1

Note: 1-Low ,2- Moderate, 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Design & Analysis Algorithms

Regulation: R20

Year & Sem: 2nd year, I sem

Branch: CSE(AI&ML)

Course Coordinator Name: Dr.K. Mahesh

Course Code: 20CS301PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Analyze the algorithms in terms of space and time
CO2	Design the algorithm using divide and conquer and greedy approach
CO3	Apply dynamic programming strategy to problems.
CO4	Apply back tracking technique and branch and bound to problems.
CO5	Construct the algorithm using non-deterministic approaches

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	3	-	-	-	-	-	-	2
CO2	3	3	2	2	2	-	-	-	-	-	-	1
CO3	3	3	3	2	2	-	-	-	-	-	-	2
CO4	3	2	2	2	2	-	-	-	-	-	-	1
CO5	3	3	2	2	2	-	-	-	-	-	-	2
Average	3	3	2	2	2	-	-	-	-	-	-	2

Note: 1- Low, 2- Moderate ,3- High

Course Coordinator


Module Coordinator

HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name : **Data Structures using C**

Regulation : **R20**

Year & Sem: **B.Tech. II year I Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name : **Ravindran M**

Course Code: **20CS302PC**

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Explore the basic concepts of data structures.
CO2	Summarize the concepts of dictionary and hash table
CO3	Implement searching in various trees
CO4	Apply different sorting techniques on data
CO5	Design pattern matching algorithm for a problem.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	1	1
CO2	3	1	1
CO3	3	2	1
CO4	3	2	1
CO5	3	3	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name : **Data Structures using C**

Regulation : **R20**

Year & Sem: **B.Tech. II year I Sem**

Branch : **CSE(AI&ML)**

Course Coordinator Name : **Ravindran M**

Course Code: **20CS302PC**

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Explore the basic concepts of data structures.
CO2	Summarize the concepts of dictionary and hash table
CO3	Implement searching in various trees
CO4	Apply different sorting techniques on data
CO5	Design pattern matching algorithm for a problem.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	1	1	-	-	-	-	-	-	3
CO2	3	2	1	1	1	-	-	-	-	-	-	3
CO3	3	3	1	2	1	-	-	-	-	-	-	3
CO4	3	3	1	2	1	-	-	-	-	-	-	3
CO5	3	3	1	2	1	-	-	-	-	-	-	3
Average	3	3	1	2	1	-	-	-	-	-	-	3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator

Module Coordinator

HoD CSE(AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : OOPS THROUGH JAVA

Regulation : R20

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name : S.RAMCHANDRAREDDY

Course Code: 20CS303PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Solve real world problems using OOP techniques.
CO2	Apply the packages and interfaces, streams in programs.
CO3	Develop exceptions, multithreaded applications with synchronization.
CO4	Develop the application using collection framework.
CO5	Design GUI based applications using applets and swings.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	-
CO3	3	3	-
CO4	3	3	2
CO5	3	2	1
Average	3	3	1

Note: 1-Low, 2- Moderate, 3-High

Course Coordinator

Module Coordinator

HOD CSE (AI&ML)



DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: OOPS THROUGH JAVA

Regulation: R20 /R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name: S.RAMCHANDRAREDDY

Course Code: 20CS303PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Solve real world problems using OOP techniques.
CO2	Apply the packages and interfaces, streams in programs.
CO3	Develop exceptions, multithreaded applications with synchronization.
CO4	Develop the application using collection framework.
CO5	Design GUI based applications using applets and swings.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	3	2	3	3	-	-	-	-	-	-	1
CO2	3	2	2	3	2	-	-	-	-	-	-	1
CO3	2	3	1	2	3	-	-	-	-	-	-	1
CO4	3	2	2	3	1	-	-	-	-	-	-	1
CO5	2	3	3	2	3	-	-	-	-	-	-	1
Average	3	2	2	3	2	-	-	-	-	-	-	1

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)

(21-23) viroda m.m.

DEPARTMENT OF AIML

CO-PSO Mapping

Course Name : Theory Of Computation

Regulation : R20

Year & Sem: 2022 , III sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code: 20CS304PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Summarize the concepts of abstract machines and their languages
CO2	Design the finite state machines from regular expressions
CO3	Design context free grammar for formal languages
CO4	Apply normalization to the context free grammar
CO5	Distinguish between decidability and un-decidability problems

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF AIML

CO-PO Mapping

Course Name: Theory Of Computation

Regulation : R20

Year & Sem: 2022 , III sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code : 20CS304PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Summarize the concepts of abstract machines and their languages
CO2	Design the finite state machines from regular expressions
CO3	Design context free grammar for formal languages
CO4	Apply normalization to the context free grammar
CO5	Distinguish between decidability and un-decidability problems

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	2
CO2	3	3	3	2	2	-	-	-	-	-	-	1
CO3	3	3	2	2	2	-	-	-	-	-	-	2
CO4	3	2	3	2	2	-	-	-	-	-	-	1
CO5	3	3	3	2	2	-	-	-	-	-	-	2
Average	3	3	3	2	2	-	-	-	-	-	-	2

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator

HoD CSE(AI&ML)



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name: Programming With Python

Regulation: R20

Year & Sem: II & I

Branch: CSE(AI&ML)

Course Coordinator Name: V N V Sri Harsha

Course Code: 20CS305PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Examine Python syntax and semantics and flow control.
CO2	Demonstrate proficiency in handling Strings and Arrays.
CO3	Develop Python Programs using core data structures.
CO4	Conduct experiments on file handling, exception handling and modules.
CO5	Interpret the concepts of Object-Oriented Programming in Python.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low, 2- Moderate, 3-High

V. Harsha
Course Coordinator

PS
Module Coordinator

chb
HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Programming With Python

Regulation:R20

Year & Sem: II & I

Branch:CSE(AI&ML)/AIML

Course Coordinator Name:V N V Sri Harsha

Course Code:20CS305PC

Course Outcomes:

At the end of the course,student will be able to	
CO#	Course Outcome
CO1	Examine Python syntax and semantics and flow control.
CO2	Demonstrate proficiency in handling Strings and Arrays.
CO3	Develop Python Programs using core data structures.
CO4	Conduct experiments on file handling, exception handling and modules.
CO5	Interpret the concepts of Object-Oriented Programming in Python.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	1	2	-	1	1	1	2
CO2	3	3	3	3	2	1	2	-	1	1	1	2
CO3	3	3	3	3	2	1	2	-	1	1	1	2
CO4	3	3	3	3	2	1	2	-	1	1	1	2
CO5	3	3	3	3	2	1	2	-	1	1	1	2
Average	3	3	3	3	2	1	2	-	1	1	1	2

Note: 1- Low, 2- Moderate,3- High


Course Coordinator


Module Coordinator

HoD CSE(AI&ML)



(21-25) viroda nam

CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Data Structure using C Lab

Regulation: R20

Year & Sem: III & I

Branch: CSE (AI&ML)

Course Coordinator Name: M Ravindran

Course Code: 20CS306PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Develop C programs for basic data structures.
CO2	Implement Linear and Circular queue
CO3	Implement stacks.
CO4	Implement sorting and searching algorithms
CO5	Implement Tree Traversal Methods.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2
CO5	3	3	3
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Data Structure using C Lab

Regulation: R20

Year & Sem: III & I

Branch: CSE (AI&ML)

Course Coordinator Name: M Ravindran

Course Code: 20CS306PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Develop C programs for basic data structures.
CO2	Implement linear and Circular queue
CO3	Implement stacks.
CO4	Implement sorting and searching algorithms
CO5	Implement Tree Traversal Methods.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3							3

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)

(21-25) M. Ravindran



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name: OOPS THROUGH JAVA LAB

Regulation: R20

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name: S.RAMCHANDRAREDDY

Course Code: 20CS308PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Explain the programs for solving real world problems using Java OOP principles.
CO2	Design programs using Exceptional Handling approach.
CO3	Compile program on multithreaded applications.
CO4	Construct Graphical User Interfaces using applets and swing control.
CO5	Experiment with all mouse events.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High

Course Coordinator

Module Coordinator

HOD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: OOPS THROUGH JAVA LAB

Regulation: R22

Year & Sem: II & I

Branch: CSE (AI&ML)

Course Coordinator Name: S.RAMCHANDRAREDDY

Course Code: 22AM405PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Explain the programs for solving real world problems using Java OOP principles.
CO2	Design programs using Exceptional Handling approach.
CO3	Compile program on multithreaded applications.
CO4	Construct Graphical User Interfaces using applets and swing control.
CO5	Experiment with all mouse events.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	2	3	3	-	-	-	-	-	-	2
CO2	2	3	2	2	2	-	-	-	-	-	-	2
CO3	3	3	3	3	3	-	-	-	-	-	-	2
CO4	3	3	3	3	3	-	-	-	-	-	-	2
CO5	3	3	3	3	3	-	-	-	-	-	-	2
Average	3	3	3	3	3	-	-	-	-	-	-	2

Note: 1- Low, 2- Moderate, 3- High



Course Coordinator



Module Coordinator

HOD CSE (AI&ML)

(21-23) Prasanma Kumari



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Analog and Digital Electronics

Regulation: R20

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name: K.Prasanna Kumari

Course Code: 20EC402PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Understand the utilization of components.
CO2	Analyze small signal amplifier circuits.
CO3	Learn postulates of Boolean algebra to the digital circuit functions
CO4	Design and analyze combinational circuits
CO5	Know about the sequential circuits.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	2	1
CO3	3	3	1
CO4	3	2	1
CO5	3	2	1
Average	3	2.4	1

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Analog and Digital Electronics

Regulation: R20

Year & Sem : II-II

Branch: CSE (AI&ML)

Course Coordinator Name: K.Prasanna Kumari

Course Code: 20EC402PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Understand the utilization of components.
CO2	Analyze small signal amplifier circuits.
CO3	Learn postulates of Boolean algebra to the digital circuit functions
CO4	Design and analyze combinational circuits
CO5	Know about the sequential circuits.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	-	-	-	-	2	-	-	-	2
CO2	3	3	3	-	-	-	-	2	-	-	-	2
CO3	3	2	2	-	-	-	-	2	-	-	-	2
CO4	3	2	3	2	-	-	-	2	-	-	-	2
CO5	3	2	3	2	-	-	-	2	-	-	-	2
Average	3	2.4	2.6	2	-	-	-	2	-	-	-	2

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : Computer Oriented Statistical Methods

Regulation : R20

Year & Sem: II & II sem

Branch : CSE(AI&ML)

Course Coordinator Name: M. Nagesh

Course Code:20CS405PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Differentiate among random variables involved in the probability models
CO2	Describe about Sampling Distributions
CO3	Perform Test of Hypothesis and understand the concept of Proportions.
CO4	Evaluate the Solution for system of equations and to fit a curve.
CO5	Achieve the knowledge to test the hypothesis and inferences

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	2
CO3	3	3	2
CO4	3	3	2
CO5	3	3	2
Average	3	3	2

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Computer Oriented Statistical Methods

Regulation:R20

Year & Sem: II , II sem

Branch:CSE(AI&ML)

Course Coordinator Name : M. Nagesh

Course Code :20CS405PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Differentiate among random variables involved in the probability models
CO2	Describe about Sampling Distributions
CO3	Perform Test of Hypothesis and understand the concept of Proportions.
CO4	Evaluate the Solution for system of equations and to fit a curve..
CO5	Achieve the knowledge to test the hypothesis and inferences

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	2	1	1	1	1	1	1
CO2	3	3	3	3	2	2	1	1	1	1	1	1
CO3	3	3	3	3	2	2	2	1	1	1	1	1
CO4	3	3	3	3	2	2	2	1	1	1	1	1
CO5	3	3	3	3	2	2	2	1	1	1	1	1
Average	3	3	3	3	2	2	2	1	1	1	1	1

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator

HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name : **Operating Systems**

Regulation : **R20**

Year & Sem: **B.Tech. II year II Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name : **Ravindran M**

Course Code: **20CS404PC**

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Illustrate the operating system concepts
CO2	Compare different CPU Scheduling Algorithms
CO3	Summarize process management and synchronization mechanisms
CO4	Explore different memory management techniques
CO5	Design file system interface and operations.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name : **Operating Systems**

Regulation : **R20**

Year & Sem: **B.Tech. II year II Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name : **Ravindran M**

Course Code: **20CS404PC**

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Illustrate the operating system concepts
CO2	Compare different CPU Scheduling Algorithms
CO3	Summarize process management and synchronization mechanisms
CO4	Explore different memory management techniques
CO5	Design file system interface and operations.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	1	1	1	-	-	-	-	-	-	3
CO2	3	1	1	1	1	-	-	-	-	-	-	3
CO3	3	1	1	1	1	-	-	-	-	-	-	3
CO4	3	1	1	1	1	-	-	-	-	-	-	3
CO5	3	1	1	1	1	-	-	-	-	-	-	3
Average	3	1	1	1	1	-	-	-	-	-	-	3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator

HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)_

CO-PSO Mapping

Course Name : Computer Organization

Regulation : R20

Year & Sem: 2022 , IV sem

Branch: CSE(AI&ML)

Course Coordinator Name : Dr. G Vinoda Reddy

Course Code: 20CS405PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Understand the basics of instructions sets and their impact on processor design.
CO2	Demonstrate an understanding of the design of the functional units of a digital computer system.
CO3	Evaluate cost performance and design trade-offs in designing and constructing a computer processor including memory
CO4	Design a pipeline for consistent execution of instructions with minimum hazards
CO5	Recognize and manipulate representations of numbers Stored in digital computers

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	2	2
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Computer Organization

Regulation:R20

Year & Sem: 2022 , IV sem

Branch:CSE(AI&ML)

Course Coordinator Name : Dr. G Vinoda Reddy

Course Code : 20CS405PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Understandthebasicsofinstructionsetsandtheirimpactonprocessordesign.
CO2	Demonstrate an understanding of the design of the functional units of a digital computer system.
CO3	Evaluate cost performance and design trade-offs in designing and constructing a computer processor including memory
CO4	Design a pipeline for consistent execution of instructions with minimum hazards
CO5	Recognize and manipulate representations of numbers Stored in digital computers

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	2
CO2	3	3	3	2	2	-	-	-	-	-	-	7
CO3	3	3	2	2	2	-	-	-	-	-	-	2
CO4	3	2	3	2	2	-	-	-	-	-	-	1
CO5	3	3	3	2	2	-	-	-	-	-	-	2
Average	3	3	3	2	2	-	-	-	-	-	-	2

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator

HoD CSE(AI&ML)

(21-25) Vinoda mam



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name:: Operating System Lab

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: M Ravindran

Course Code: 20CS406PC

Course Outcomes:

At the end of the Course, Student will be able to	
	Course Outcome
CO1	Implement Linux System calls using C
CO2	Simulate basic operating system concepts like scheduling, memory management.
CO3	Implement the Producer – Consumer problem
CO4	Simulate Bankers Algorithm for Deadlock
CO5	Simulate the memory management techniques

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2
CO5	3	3	3
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name:: Operating System Lab

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: M Ravindran

Course Code: 20CS406PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Implement Linux System calls using C
CO2	Simulate basic operating system concepts like scheduling, memory management.
CO3	Implement the Producer – Consumer problem
CO4	Simulate Bankers Algorithm for Deadlock
CO5	Simulate the memory management techniques

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3							3

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator

HoD CSE (AI&ML)

(21-25)

ESTD: 2009



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name :DBMS Lab

Regulation : R20

Year & Sem: II & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.SWAROOPA RANI

Course Code:20CS407PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Design database schema for a given application and apply normalization.
CO2	Acquire skills in using SQL commands for data definition and data manipulation.
CO3	Develop solutions for database applications using procedures.
CO4	Make use of Cursors and triggers to demonstrate database applications.
CO5	Perform queries using Aggregation function.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name :DBMS Lab

Regulation : R20

Year & Sem: II & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.SWAROOPA RANI

Course Code: 20CS407PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Design database schema for a given application and apply normalization.
CO2	Acquire skills in using SQL commands for data definition and data manipulation.
CO3	Develop solutions for database applications using procedures.
CO4	Make use of Cursors and triggers to demonstrate database applications.
CO5	Perform queries using Aggregation function.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	-	-	-	-	-	-
CO2	3	3	3	3	3	-	-	-	-	-	-	-
CO3	3	3	3	3	3	-	-	-	-	-	-	-
CO4	3	3	3	3	3	-	-	-	-	-	-	-
CO5	3	3	3	3	3	-	-	-	-	-	-	-
Average	3	3	3	3	3	-	-	-	-	-	-	-

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Analog and Digital Electronics Lab

Regulation: R20

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name: K. Prasanna Kumari

Course Code: 20EC408PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Able to understand the basics of semiconductors and the characteristics of semiconductor diodes.
CO2	Able to design and analyze a transistor in different configurations.
CO3	Realization of Boolean expressions using gates and universal gates using appropriate experimentation setup.
CO4	Design and realization of various combinational circuits using appropriate experimentation setup.
CO5	Design and realization of a synchronous and asynchronous counter using flip-flops using appropriate experimentation setup.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	2	-
CO2	3	2	1
CO3	3	2	-
CO4	3	2	1
CO5	3	2	-
Average	3	2	1

Note: 1-Low, 2- Moderate, 3-High

Prasanna
Course Coordinator

Prasanna
Module Coordinator

Prasanna
HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Analog and Digital Electronics Lab

Regulation: R20

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name: K.Prasanna Kumari

Course Code: 20EC408PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Able to understand the basics of semiconductors and the characteristics of semiconductor diodes.
CO2	Able to design and analyze a transistor in different configurations.
CO3	Realization of Boolean expressions using gates and universal gates using appropriate experimentation setup.
CO4	Design and realization of various combinational circuits using appropriate experimentation setup.
CO5	Design and realization of a synchronous and asynchronous counter using flip-flops using appropriate experimentation setup.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	3	-	1	-	-	-	-	-	-	-	-
CO2	-	2	-	1	-	-	-	-	-	-	-	-
CO3	3	2	-	2	-	-	-	-	-	-	-	-
CO4	2	-	-	1	-	-	-	-	-	-	-	-
CO5	-	2	2	2	-	-	-	-	-	-	-	-
Average	2.5	2.25	2	1.4	-	-	-	-	-	-	-	-

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator 

Module Coordinator

HoD CSE (AI&ML) 



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Gender Sensitization Lab

Regulation: R20

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name:k.Jyothi

Course Code: 22EN410MC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Students will have developed a better understanding of important issues related to gender in contemporary India.
CO2	Students will attain a finer grasp of how gender discrimination works in our society and how to counter it
CO3	Students will acquire insight into the gendered division of labour and its relation to politics and economics
CO4	Men and women students and professionals will be better equipped to work and live together as equals .
CO5	Students will develop a sense of appreciation of women in all walks of life

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	-	-	1
CO2	-	3	-
CO3	1	-	3
CO4	1	2	2
CO5	-	-	2
Average	1	2.5	2

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator

Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Gender Sanitization Lab

Regulation: R22

Year & Sem: II-II

Branch: CSE (AI&ML)

Course Coordinator Name: K.Jyothi

Course Code: 22EN410MC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Students will have developed a better understanding of important issues related to gender in contemporary India.
CO2	Students will attain a finer grasp of how gender discrimination works in our society and how to counter it
CO3	Students will acquire insight into the gendered division of labour and its relation to politics and economics
CO4	Men and women students and professionals will be better equipped to work and live together as equals .
CO5	Students will develop a sense of appreciation of women in all walks of life

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	1	2	-	-	2	-	3	-	-	-	1
CO2	-	1	2	-	-	2	-	3	-	1	-	1
CO3	-	-	-	1	2	2	-	3	3	-	-	-
CO4	-	1	2	-	-	2	-	3	-	2	-	2
CO5	1	1	2	-	2	2	2	3	2	2	2	-
Average	1	1	2	2	2	2	2	3	2	2	2	2

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)



(20-25) +10/11/11

CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Data Mining

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: GANGARAM.G

Course Code: 20DS504PC:

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Able to install weka tool and implement the different algorithms using data mining concept
CO2	Create model using different Data Mining Techniques
CO3	Apply classification mining algorithms as a component to the existing tools.
CO4	Apply clustering mining techniques for realistic data.
CO5	Implement dissension tree concept for developing different applications.


CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
 Accredited by NBA & NAAC with 'A' Grade
 Approved by AICTE, New Delhi and JNTU, Hyderabad
 Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Data Mining

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: GANGARAM.G

Course Code: 20DS504PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Able to install weka tool and implement the different algorithms using data mining concept
CO2	Create model using different Data Mining Techniques
CO3	Apply classification mining algorithms as a component to the existing tools.
CO4	Apply clustering mining techniques for realistic data.
CO5	Implement dissension tree concept for developing different applications.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3	-	-	-	-	-	-	3

Note: 1- Low, 2- Moderate, 3- High

Gangaram.G
Course Coordinator

[Signature]
Module Coordinator

[Signature]
HoD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : COMPUTER NETWORKS

Regulation : R20

Year & Sem: III & I

Branch: CSE (AI&ML)

Course Coordinator Name : V.RAVINDERNAIK

Course Code: 20CS502PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Install TOMCAT web server.
CO2	Implement data link layer farming methods
CO3	Implement PHP concepts in HTML
CO4	Implement server side scripting using XML
CO5	Implement routing and congestion issues in network design..

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	2	2
CO5	3	2	3
Average	3	2	2

Note: 1-Low ,2- Moderate , 3-High

V. mark
Course Coordinator

[Signature]
Module Coordinator

[Signature]
HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : COMPUTER NETWORKS

Regulation : R20

Year & Sem: III & I

Branch: CSE (AI&ML)

Course Coordinator Name : V.RAVINDERNAIK

Course Code: 20CS502PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Install TOMCAT web server.
CO2	Implement data link layer farming methods
CO3	Implement PHP concepts in HTML
CO4	Implement server side scripting using XML
CO5	Implement routing and congestion issues in network design..

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	-	-	-	-	-	-	-	-	3
CO2	3	3	3	-	-	-	-	-	-	-	-	3
CO3	3	3	3	2	-	-	-	-	-	-	-	3
CO4	3	3	3	3	-	-	-	2	-	-	-	3
CO5	3	3	3	3	-	-	-	-	-	-	-	3
Average	3	3	2.8	2.6				2				3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: WEB TECHNOLOGIES

Regulation: R20

Year & Sem: III-I

Branch: CSE (AI&ML)

Course Coordinator Name: N.SATEESH

Course Code: 20CS503PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Apply server-side scripting with PHP language
CO2	Understand XML and how to parse and use XML Data with Java.
CO3	To introduce Server-side programming with Java Servlets.
CO4	Implement JSP pages using Cookies and Session tracking.
CO5	Design client-side scripting, validation of forms and AJAX programming

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	2	
CO2	3	3	
CO3	3	2	1
CO4	3	2	3
CO5	3	2	3
Average	3	2.33	2.5

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

Course Name: WEB TECHNOLOGIES

Regulation: R20

Year & Sem: III-I

Branch: CSE (AI&ML)

Course Coordinator Name: N.SATEESH

Course Code: 20CS503PC

CO-PO Mapping

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Apply server-side scripting with PHP language
CO2	Understand XML and how to parse and use XML Data with Java.
CO3	To introduce Server-side programming with Java Servlets.
CO4	Implement JSP pages using Cookies and Session tracking.
CO5	Design client-side scripting, validation of forms and AJAX programming

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	-	-	-	-	-	-	-	-	-
CO2	3	2	3	-	-	-	-	-	-	-	-	-
CO3	3	2	3	-	-	-	-	-	-	-	-	-
CO4	3	3	3	-	-	-	-	-	-	-	-	-
CO5	3	2	3	-	-	-	-	-	-	-	-	-
Average	3	2.3	2.8	-	-	-	-	-	-	-	-	-

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator

HoD CSE (AI&ML)



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : OBJECT ORIENTED ANALYSIS AND DESIGN Regulation : R20
 Year & Sem: III & I Branch: CSE (AI&ML)
 Course Coordinator Name : BUSHRA TARANNUM Course Code: 20CS512PE
 Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	The importance of modelling in UML.
CO2	Compare and contrast the object-oriented model with the E-R and EER models.
CO3	Design use case diagram.
CO4	Design an application using deployment diagram.
CO5	Apply UML diagrams to build library application.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	1
CO3	3	2	2
CO4	3	2	2
CO5	3	2	3
Average	3	2	2

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : OBJECT ORIENTED ANALYSIS AND DESIGN

Regulation : R20

Year & Sem: III & I

Branch: CSE (AI&ML)

Course Coordinator Name : BUSHRA TARANNUM

Course Code: 20CS512PE

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	The importance of modelling in UML.
CO2	Compare and contrast the object-oriented model with the E-R and EER models.
CO3	Design use case diagram.
CO4	Design an application using deployment diagram.
CO5	Apply UML diagrams to build library application.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	2	3	2	1	-	2	2	2	3
CO2	3	3	3	2	3	-	1	-	-	3	3	3
CO3	3	3	3	3	3	1	2	1	3	3	2	3
CO4	3	3	3	3	3	2	-	-	3	-	3	3
CO5	3	3	3	3	3	-	-	-	2	-	2	3
Average	3	3	2.8	2.6	3	1	0.8	0.2	2	1.6	2.4	3

Note : 1- Low , 2- Moderate ,3- High



Course Coordinator

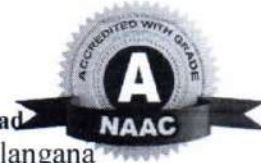


Module Coordinator

HoD CSE(AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: NATURAL LANGUAGE PROCESSING

Regulation: R20

Year & Sem: V & I

Branch: CSE (AI&ML)

Course Coordinator Name: K Nagamani

Course Code: 20CS525PE

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Summarize the NLP structure documents..
CO2	Use of proper experimental methodology for evaluating NLP systems.
CO3	Construct statistical models over strings and trees, and estimate parameters
CO4	Implement NLP algorithms.
CO5	Design different Language Modelling Techniques.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: NATURAL LANGUAGE PROCESSING

Regulation: R20

Year & Sem: V & I

Branch: CSE (AI&ML)

Course Coordinator Name: K Nagamani

Course Code: 20CS525PE

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Summarize the NLP structure documents..
CO2	Use of proper experimental methodology for evaluating NLP systems.
CO3	Construct statistical models over strings and trees, and estimate parameters
CO4	Implement NLP algorithms.
CO5	Design different Language Modelling Techniques.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	2	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	2	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3	-	-	-	-	-	-	3

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)

(21-25) Mahesh



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Data Mining Lab

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: GANGARAM.G

Course Code: 20DS504PC:

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Able to install weka tool and implement the different algorithms using data mining concept
CO2	Create model using different Data Mining Techniques
CO3	Apply classification mining algorithms as a component to the existing tools.
CO4	Apply clustering mining techniques for realistic data.
CO5	Implement dissension tree concept for developing different applications.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)



DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Data Mining Lab

Regulation: R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: GANGARAM.G

Course Code: 20DS504PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Able to install weka tool and implement the different algorithms using data mining concept
CO2	Create model using different Data Mining Techniques
CO3	Apply classification mining algorithms as a component to the existing tools.
CO4	Apply clustering mining techniques for realistic data.
CO5	Implement dissension tree concept for developing different applications.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3	-	-	-	-	-	-	3

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)

(21-25) Mr Ravindran

ESTD: 2009



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: CN & WT LAB

Regulation: R20

Year & Sem: III-I

Branch: CSE (AI&ML)

Course Coordinator Name: N.SATEESH

Course Code: 20CS505PC

Course Outcomes:

At the end of the Course , Student will be able to

CO#	Course Outcome
CO1	Implement data link layer framing methods
CO2	Understand how errors detected and corrected that occur in transmission
CO3	Implement and analyze routing and congestion issues in network design
CO4	Design web pages through coding using HTML and PHP
CO5	Design and implement dynamic websites with good aesthetic sense of designing and latest technical know-how's.
CO6	Have a Good grounding of Web Application Terminologies, Internet Tools

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	2	2	
CO2	3	2	
CO3	2	2	
CO4	3	2	
CO5	3	2	
Average	2	2	
	2.5	2	

Note: 1-Low, 2- Moderate, 3-High

Course Coordinator

Module Coordinator

HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

Course Name: CN & WT LAB

Regulation: R20

Year & Sem: III-I

Branch: CSE (AI&ML)

Course Coordinator Name: N.SATEESH

Course Code: 20CS505PC

CO-PO Mapping

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Implement data link layer farming methods
CO2	Understand how errors detected and corrected that occur in transmission
CO3	Implement and analyze routing and congestion issues in network design
CO4	Design web pages through coding using HTML and PHP
CO5	Design and implement dynamic websites with good aesthetic sense of designing and latest technical know-how's.
CO6	Have a Good grounding of Web Application Terminologies, Internet Tools

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	2	3						1			
CO2	2		3									
CO3	2		3		3							
CO4	3	3	3						2			
CO5	3	2	3		2							
CO6	3	2	3		2				2			
Average	2.5	2.25	3		2.3				1.6			

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator

HoD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name :INTELLECTUAL PROPERTY RIGHTS

Regulation : R20

Year & Sem: III& I

Branch: CSE (AI&ML)

Course Coordinator Name: B.Durga Bhavani

Course Code: 20MC5091P

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Distinguish and Explain various forms of IPR
CO2	Interpret the trade Marks , copy rights , patents and agencies
CO3	Apply statutory provisions to protect
CO4	Use of rules and properties of IPR for grants.
CO5	Develop skill of making search using modern tools and technics

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	2
CO3	3	2	2
CO4	3	2	2
CO5	3	2	2
Average	3	2	2

Note: 1-Low ,2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : INTELLECTUAL PROPERTY RIGHTS

Regulation : R20

Year & Sem: III& I

Branch: CSE (AI&ML)

Course Coordinator Name :B.Durga Bhavani

Course Code: 20MC5091P

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Distinguish and Explain various forms of IPR
CO2	Interpret the trade Marks , copy rights , patents and agencies
CO3	Apply statutory provisions to protect
CO4	Use of rules and properties of IPR for grants.
CO5	Develop skill of making searching modern tools and technics.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	2	1	1	2	1	-	-	2	3	2	1	3
CO2	3	1	1	2	1	-	1	2	3	2	-	3
CO3	2	1	1	1	1	-	-	2	3	2	-	3
CO4	2	1	1	1	3	-	-	2	3	2	-	3
CO5	2	1	1	1	3	-	-	2	3	2		3
Average	2.2	1	1	1.4	3	-	0.2	2	3	2	0.2	3

Note : 1- Low , 2- Moderate , 3- High

Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



(21-25) HOD Sir

CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : ARTIFICIAL INTELLIGENCE

Regulation : R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.PRASHANTH

Course Code: 20AI601PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Ability to formulate problems expressed in natural language.
CO2	Select a search algorithm for a problem and estimate its performance.
CO3	Demonstrate the skill for representing knowledge.
CO4	Develop the ability to apply AI techniques to solve problems.
CO5	Discuss about Probabilistic theory

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2
CO5	3	3	3
Average	3	3	3

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : ARTIFICIAL INTELLIGENCE

Regulation : R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.PRASHANTH

Course Code: 20AI601PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Ability to formulate problems expressed in natural language.
CO2	Select a search algorithm for a problem and estimate its performance.
CO3	Demonstrate the skill for representing knowledge.
CO4	Develop the ability to apply AI techniques to solve problems.
CO5	Discuss about Probabilistic theory

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3							3

Note : 1- Low , 2- Moderate , 3- High

Course Coordinator

Module Coordinator

HoD CSE(AI&ML)

(21-25) vinoda mam

DEPARTMENT OF AIML

CO-PSO Mapping

Course Name : Compiler Design

Regulation : R20

Year & Sem: 2023 , VI sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code: 20CS602PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Compute tokens and regular expressions for lexical analysis.
CO2	Implement top-down and bottom-up parsers.
CO3	Construct intermediate code for procedures.
CO4	Optimize the code generation
CO5	Analyze the data flow.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	2	2
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF AIML

CO-PO Mapping

Course Name : Compiler Design

Regulation : R20

Year & Sem: 2023 , VI sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code : 20CS602PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Compute tokens and regular expressions for lexical analysis.
CO2	Implement top-down and bottom-up parsers.
CO3	Construct intermediate code for procedures.
CO4	Optimize the code generation
CO5	Analyze the data flow.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	2
CO2	3	3	3	2	2	-	-	-	-	-	-	1
CO3	3	3	2	2	2	-	-	-	-	-	-	2
CO4	3	2	3	2	2	-	-	-	-	-	-	1
CO5	3	3	3	2	2	-	-	-	-	-	-	2
Average	3	3	3	2	2	-	-	-	-	-	-	2

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

C21-15) vinubla mam



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: SOFTWARE ENGINEERING

Regulation : R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: Gangaram G

Course Code: 20CS603PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Translate end-user requirements into system.
CO2	Identify and apply the process model based on software requirements.
CO3	Build design of a system with alternative choices.
CO4	Construct testing strategies and generate a report.
CO5	Quantify the metrics for process and products

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2
CO5	3	3	3
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name:: SOFTWARE ENGINEERING

Regulation : R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name: Gangaram G

Course Code: 20CS603PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Translate end-user requirements into system.
CO2	Identify and apply the process model based on software requirements.
CO3	Build design of a system with alternative choices.
CO4	Construct testing strategies and generate a report.
CO5	Quantify the metrics for process and products

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3							3

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name: **BIG DATA ANALYTICS**

Regulation: **R20**

Year & Sem: **B.Tech. VI SEM**

Branch: **CSE(AI&ML)**

Course Coordinator Name: **Ms. MAMATHA B**

Course Code: **20CS631PE**

Course Outcomes:

At the end of the Course, Students will be able to	
CO#	Course Outcome
CO1	Interpreting the big data.
CO2	Big Data analytics: learn how to use it
CO3	Describe the Map-Reduce fundamentals
CO4	Illustrating the cloud database using No SQL.
CO5	Analyze various types of data using the appropriate tools.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: **BIG DATA ANALYTICS**

Regulation: **R20**

Year & Sem: **B.Tech. VI SEM**

Branch: **CSE(AI&ML)**

Course Coordinator Name: **Ms. MAMATHA B**

Course Code: **20CS631PE**

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Interpreting the big data.
CO2	Big Data analytics: learn how to use it
CO3	Describe the Map-Reduce fundamentals
CO4	Illustrating the cloud database using No SQL.
CO5	Analyze various types of data using the appropriate tools.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	2	2	-	-	-	-	-	-	1
CO2	3	3	2	2	2	-	-	-	-	-	-	1
CO3	3	3	2	2	3	-	-	-	-	-	-	1
CO4	3	3	2	2	3	-	-	-	-	-	-	1
CO5	3	3	2	2	3	-	-	-	-	-	-	1
Average	3	3	2	2	2.6	-	-	-	-	-	-	1

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



(20-23)
HOD sir

CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : ARTIFICIAL INTELLIGENCE LAB

Regulation : R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.PRASHANTH

Course Code: 20AI604PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Develop skills in different Learning Algorithms in AI.
CO2	Apply the basic principles of AI in problem solving using LISP/PROLOG
CO3	Implement different algorithms using LISP/PROLOG
CO4	Implement an Expert System using JESS/PROLOG
CO5	Implement an Expert System using RVD/PROLOG

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	3	2
CO2	3	3	3
CO3	3	3	3
CO4	3	3	3
CO5	3	3	3
Average	3	3	3

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : ARTIFICIAL INTELLIGENCE LAB

Regulation : R20

Year & Sem: III & II

Branch: CSE (AI&ML)

Course Coordinator Name : B.PRASHANTH

Course Code: 20AI604PC

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Develop skills in different Learning Algorithms in AI,
CO2	Apply the basic principles of AI in problem solving using LISP/PROLOG
CO3	Implement different Algorithms using LISP/PROLOG
CO4	Implement an Expert System using JESS/PROLOG
CO5	Implement an Expert System using RVD/PROLOG

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	-	-	-	-	-	3
CO2	3	2	3	3	3	-	-	-	-	-	-	3
CO3	3	3	3	3	3	-	-	-	-	-	-	3
CO4	3	3	2	3	3	-	-	-	-	-	-	2
CO5	3	3	3	3	3	-	-	-	-	-	-	2
Average	3	3	3	3	3	-	-	-	-	-	-	3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

(21-25) vinoda meem



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name:- Software Testing Methodologies Lab

Regulation: R20

Year & Sem: V & II

Branch: CSE (AI&ML)

Course Coordinator Name: HAFEENA.MD

Course Code: 20DS501PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Design the best test strategy in accordance with the development model.
CO2	Apply transaction-flow and domain path testing strategies.
CO3	Illustrate the logic-based testing method.
CO4	Apply the network-flow testing for the application.
CO5	Develop automated testing using the Jmeter or WinRunner tools.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	2	3
CO3	2	3	2
CO4	3	2	2
CO5	3	2	3
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High

Course Coordinator


Module Coordinator


HoD CSE (AI&ML)





DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name:- Software Testing Methodologies Lab

Regulation: R20

Year & Sem: V & II

Branch: CSE (AI&ML)

Course Coordinator Name: HAFEENA.MD

Course Code: 20DS501PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Design the best test strategy in accordance with the development model.
CO2	Apply transaction-flow and domain path testing strategies.
CO3	Illustrate the logic-based testing method.
CO4	Apply the network-flow testing for the application.
CO5	Develop automated testing using the Jmeter or WinRunner tools.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3							3

Note: 1- Low, 2- Moderate, 3- High

Course Coordinator

Module Coordinator

HoD CSE (AI&ML)

Hafeena md

(21-25) Kanaka Durga

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Business Economics & Financial Analysis

Regulation: R20

Year & Sem: IV-I

Branch: CSE (AI&ML)

Course Coordinator Name: D.Kanaka Durga

Course Code: 20MB701PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Understand the various Forms of Business and the impact of economic variables on the Business.
CO2	Comprehend the demand and supply analysis
CO3	Explore the usage of marketing and pricing of a product
CO4	Maintaining the financial accounts of a firm or company.
CO5	Monitoring the accounts through ratios.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	-	-	3
CO2	-	-	3
CO3	-	-	3
CO4	-	-	2
CO5	-	-	2
Average	-	-	2.6

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Business Economics & Financial Analysis

Regulation: R20

Year & Sem:

Branch: CSE (AI&ML)

Course Coordinator Name: D.Kanaka Durga

Course Code: 20MB701PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Understand the various Forms of Business and the impact of economic variables on the Business.
CO2	Comprehend the demand and supply analysis
CO3	Explore the usage of marketing and pricing of a product
CO4	Maintaining the financial accounts of a firm or company.
CO5	Monitoring the accounts through ratios.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	-	-	-	-	-	-	-	-	-	3	-
CO2	-	-	-	-	-	-	-	-	-	-	3	-
CO3	-	-	-	-	-	-	-	-	-	-	3	-
CO4	-	-	-	-	-	-	-	-	-	-	3	-
CO5	-	-	-	-	-	-	-	-	-	-	3	-
Average	-	-	-	-	-	-	-	-	-	-	3	-

Note: 1- Low, 2- Moderate, 3- High-


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

(21-25) HOD Sir

ESTD: 2009



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name: **MACHINE LEARNING**

Regulation: **R20**

Year & Sem: **B.Tech. IV year I Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name: **Ms. MAMATHA B**

Course Code: **20CS702PC**

Course Outcomes:

At the end of the Course, Students will be able to	
CO#	Course Outcome
CO1	Interpreting the concept of computational intelligence.
CO2	Description of artificial neural networks and their usage.
CO3	Implement basic machine learning algorithms.
CO4	Implement instant-based learning by set rules.
CO5	Describes reinforcement learning algorithms for analysis.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
CO3	3	3	1
CO4	3	3	1
CO5	3	3	1
Average	3	3	1

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: **MACHINE LEARNING**

Regulation: **R20**

Year & Sem: **B.Tech. IV year I Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name: **Ms. MAMATHA B**

Course Code: **20CS702PC**

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Interpreting the concept of computational intelligence.
CO2	Description of artificial neural networks and their usage.
CO3	Implement basic machine learning algorithms.
CO4	Implement instant-based learning by set rules.
CO5	Describes reinforcement learning algorithms for analysis.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	2	2	2	-	-	-	-	-	-	1
CO2	3	2	2	2	2	-	-	-	-	-	-	1
CO3	3	3	3	3	2	-	-	-	-	-	-	1
CO4	3	3	3	3	2	-	-	-	-	-	-	1
CO5	3	3	2	2	2	-	-	-	-	-	-	1
Average	3	2.8	2.4	2.4	2	-	-	-	-	-	-	1

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

(21-25) Mahesh

DEPARTMENT OF CSE(AI&ML)_

CO-PSO Mapping

Course Name : Cloud Computing

Regulation : R20

Year & Sem: 2023 ,VII sem

Branch: CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code: 20CS741PE

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Understand the cloud computing paradigms.
CO2	Demonstrate an Understand various service delivery models of a cloud computing architecture
CO3	Identify the cloud infrastructure management and migration tools
CO4	Understand the cloud service ways in which the cloud can be programmed.
CO5	Recognize cloud service providers.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	2	2
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


Ho D CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Cloud Computing

Regulation:R20

Year & Sem:2023 , VII sem

Branch:CSE(AI&ML)

Course Coordinator Name : G Parvathi Devi

Course Code : : 20CS741PE

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Understand the cloud computing paradigms.
CO2	Demonstrate an Understand various service delivery models of a cloud computing architecture
CO3	Identify the cloud infrastructure management and migration tools
CO4	Understand the cloud service ways in which the cloud can be programmed.
CO5	Recognize cloud service providers.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	2
CO2	3	3	3	2	2	-	-	-	-	-	-	1
CO3	3	3	2	2	2	-	-	-	-	-	-	2
CO4	3	2	3	2	2	-	-	-	-	-	-	1
CO5	3	3	3	2	2	-	-	-	-	-	-	2
Average	3	3	3	2	2	-	-	-	-	-	-	2

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : **DEEP LEARNING**

Regulation : **R20**

Year & Sem: **B.Tech. IV year I Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name : **Ravindran M**

Course Code: **20AI751PE**

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Describe the concepts of Neural Networks
CO2	Select the Learning Networks in modeling real-world systems
CO3	Apply optimization strategies for large scale applications
CO4	Use an efficient algorithm for Deep Models
CO5	Implement Deep learning models in various domains.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	1	1
CO2	3	1	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : **DEEP LEARNING**

Regulation : **R20**

Year & Sem: **B.Tech. IV year I Sem**

Branch:**CSE(AI&ML)**

Course Coordinator Name : **Ravindran M**

Course Code: **20AI751PE**

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Describe the concepts of Neural Networks
CO2	Select the Learning Networks in modeling real-world systems
CO3	Apply optimization strategies for large scale applications
CO4	Use an efficient algorithm for Deep Models
CO5	Implement Deep learning models in various domains.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	1	1	1	-	-	-	-	-	-	3
CO2	3	2	1	1	1	-	-	-	-	-	-	3
CO3	3	2	1	2	1	-	-	-	-	-	-	3
CO4	3	2	1	2	1	-	-	-	-	-	-	3
CO5	3	2	2	2	1	-	-	-	-	-	-	3
Average	3	2	1	2	1	-	-	-	-	-	-	3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

(21-25)
vinodanani

ESTD: 2009



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : **INFORMATION RETRIEVAL SYSTEM** Regulation : **R20**
Year & Sem: **B.Tech. IV year I Sem** Branch: **SSCSE(AI&ML)**
Course Coordinator Name : **RAMESH A** Course Code: **20DS7210E**

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Describe IR principles large collections of data.
CO2	Design the data model using statistical approaches.
CO3	Apply automatic document clustering on IR.
CO4	Design an information Retrieval system for web search tasks.
CO5	Apply visualization tools for multimedia information retrieval.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	1	1
CO2	3	1	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)



DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : **INFORMATION RETRIEVAL SYSTEM**

Regulation : **R20**

Year & Sem: **B. Tech. IV year I Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name : **Ramesh A**

Course Code: **20DS7210E**

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Describe IR principles large collections of data.
CO2	Design the data model using statistical approaches.
CO3	Apply automatic document clustering on IR.
CO4	Design an information Retrieval system for web search tasks.
CO5	Apply visualization tools for multimedia information retrieval.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	2	3	-	-	-	-	-	-	3
CO2	3	3	3	2	3	-	-	-	-	-	-	3
CO3	3	3	3	2	3	-	-	-	-	-	-	3
CO4	3	3	2	2	3	-	-	-	-	-	-	3
CO5	3	3	2	2	3	-	-	-	-	-	-	3
Average	3	3	2.6	2	3	-	-	-	-	-	-	3

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

(21-25) HOD Siv

ESTD: 2009



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Machine Learning Lab

Regulation: R20

Year & Sem: IV&I

Branch: CSE (AI&ML)

Course Coordinator Name: MS. Mamatha B

Course Code: 20AI703PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Identify the complexity of Machine Learning algorithms and their limitations
CO2	Extract the data from the database using python
CO3	Apply common Machine Learning algorithms in practice and implementing their own;
CO4	Implement the finite words classification system using Back-propagation algorithm
CO5	Build the predictive model from data and analyze their performance

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	3
CO2	3	3	3
CO3	2	3	2
CO4	3	2	2
CO5	3	3	2
Average	3	3	3

Note: 1-Low, 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Machine Learning Lab

Regulation: R20

Year & Sem: IV & I

Branch: CSE (AI&ML)

Course Coordinator Name: Ms. Mamatha B

Course Code: 20AI703PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Identify the complexity of Machine Learning algorithms and their limitations
CO2	Extract the data from the database using python
CO3	Apply common Machine Learning algorithms in practice and implementing their own;
CO4	Implement the finite words classification system using Back-propagation algorithm
CO5	Build the predictive model from data and analyze their performance

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	3	-	--	-	-	-	-	3
CO2	3	3	2	2	3	-	--	-	-	-	-	3
CO3	3	3	3	3	3	-	--	-	-	-	-	3
CO4	3	2	3	3	3	-	--	-	-	-	-	3
CO5	3	3	3	3	3	-	--	-	-	-	-	3
Average	3	3	3	3	3							3

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

(21-25) Mr. Ravindran.

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : R Programming Lab

Regulation : R20

Year & Sem: 2022 , V Sem

Branch: AIML

Course Coordinator Name :Shaik Sharif

Course Code: 20DS506PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course outcomes
CO1	Implement basic concepts of R Programming that includes conditional, looping, lists, Strings, Functions, Frames, Arrays, and File programming.
CO2	Implement the concepts of R script to extract the data from data frames and file operations.
CO3	Apply descriptive statistic on different data sets.
CO4	Make Use of R Graphics and Tables to visualize results of various statistical operations on data.
CO5	Implement the R Script to extract the data from data frames and file.

CO-PSO Mapping:

	PO1	PO2	PO3
CO1	3	2	3
CO2	3	3	3
CO3	3	3	3
CO4	3	2	3
CO5	3	2	3
Average	3	2	3

Note:1-Low,2-Moderate,3-High.


Course Coordinator


Module Coordinator


HOD CSE(AI&M)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : R Programming Lab

Regulation : R20

Year & Sem: 2022 , V Sem

Branch: AIML

Course Coordinator Name :Shaik Sharif

Course Code: 20DS506PC

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course outcomes
CO1	Implement basic concepts of R Programming that includes conditional, looping, lists, Strings, Functions, Frames, Arrays, and File programming.
CO2	Implement the concepts of R script to extract the data from data frames and file operations.
CO3	Apply descriptive statistic on different data sets.
CO4	Make Use of R Graphics and Tables to visualize results of various statistical operations on data.
CO5	Implement the R Script to extract the data from data frames and file.

CO-PSO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	2	3	3	3	-	-	-	-	-	-	-
CO2	3	3	3	2	2	-	-	-	-	-	-	-
CO3	3	3	3	2	2	-	-	-	-	-	-	-
CO4	3	2	3	2	2	-	-	-	-	-	-	-
CO5	3	2	3	2	2	-	-	-	-	-	-	-
Average	3	2	3	2	2	-	-	-	-	-	-	-

Note: 1-Low, 2-Moderate, 3-High.


Course Coordinator


Module Coordinator

HOD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name: Python Lab

Regulation:R20

Year & Sem: II & I

Branch:CSE(AI&ML)/AIML

Course Coordinator Name:V N V Sri Harsha

Course Code:20CS307PC

Course Outcomes:

At the end of the course, student will be able to

CO#	Course Outcome
CO1	Implement programs using basic data structures
CO2	Develop programs using modules, files and object oriented concepts.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	2	1	2	-	1	1	1	2
CO2	3	3	3	3	2	1	2	-	1	1	1	2
Average	3	3	3	3	2	1	2	-	1	1	1	2

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator

HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name:Python Lab

Regulation:R20

Year & Sem: II & I

Branch:CSE(AI&ML)

Course Coordinator Name:V N V Sri Harsha

Course Code:20CS307PC

Course Outcomes:

At the end of the Course, Student will be able to

CO#	Course Outcome
CO1	Implement programs using basic data structures
CO2	Develop programs using modules, files and object oriented concepts.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	3	1
CO2	3	3	1
Average	3	3	1

Note: 1-Low,2- Moderate, 3-High

V. Harsha
Course Coordinator

PS
Module Coordinator

HoD CSE(AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: Organizational Behaviour

Regulation: R20

Year & Sem: IV-II

Branch: CSE (AI&ML)

Course Coordinator Name: Dr. Mallika Rao .P

Course Code: 20MB801HS

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Introducing environmental and organizational behavior
CO2	Describing the personality and process attributes at a cognitive level
CO3	Usage of decision making at individual and team levels.
CO4	Comprehend power and politics.
CO5	Analyzing the leading performance.

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	-	-	3
CO2	-	-	3
CO3	-	-	3
CO4		-	2
CO5	-	-	2
Average	-	-	2.6

Note: 1-Low, 2- Moderate, 3-High

Dr. Mallika Rao.
Course Coordinator

Dr. Mallika Rao.
Module Coordinator

cmh
HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: Organizational Behaviour

Regulation: R20

Year & Sem: IV-II

Branch: CSE (AI&ML)

Course Coordinator Name: Dr.Mallika Rao.P

Course Code: 20MB801PC

Course Outcomes:

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Introducing environmental and organizational behavior
CO2	Describing the personality and process attributes at a cognitive level
CO3	Usage of decision making at individual and team levels.
CO4	Comprehend power and politics.
CO5	Analyzing the leading performance.

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	-	-	-	-	-	-	-	-	-	-	3	-
CO2	-	-	-	-	-	-	-	-	-	-	3	-
CO3	-	-	-	-	-	-	-	-	-	-	3	-
CO4	-	-	-	-	-	-	-	-	-	-	3	-
CO5	-	-	-	-	-	-	-	-	-	-	3	-
Average	-	-	-	-	-	-	-	-	-	-	3	-

Note: 1- Low, 2- Moderate, 3- High

Dr. Mallika Rao
Course Coordinator

Dr. Mallika Rao
Module Coordinator

cm
HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PSO Mapping

Course Name: CYBER FORENSICS

Regulation: R20

Year & Sem: IV & II

Branch: CSE (AI&ML)

Course Coordinator Name: R.LAVANYA

Course Code: 20CS862PE

At the end of the Course, Student will be able to	
CO#	Course Outcome
CO1	Understand the usage of computer in forensic
CO2	Explain initial response and forensic duplication
CO3	Analyze the forensic analysis and validation
CO4	Usage of forensic tools And Understanding mobile forensics
CO5	Understanding the working with DOS System

CO-PSO Mapping:

	PSO1	PSO2	PSO3
CO1	3	2	2
CO2	3	2	2
CO3	3	2	2
CO4	3	2	2
CO5	3	2	2
Average	3	2	2

Note: 1-Low 2- Moderate, 3-High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

DEPARTMENT OF CSE (AI&ML)

CO-PO Mapping

Course Name: CYBER FORENSICS

Regulation: R20

Year & Sem: IV & II

Branch: CSE (AI&ML)

Course Coordinator Name: R.LAVANYA

Course Code: 20CS862PE

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Understand the usage of computer in forensic
CO2	Explain initial response and forensic duplication
CO3	Analyze the forensic analysis, and validation
CO4	Usage of forensic tools And Understanding mobile forensics
CO5	Understanding the working with DOS System

CO-PO Mapping:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	1	1	2	1	-	-	2	3	2	1	3
CO2	2	1	1	2	1	-	1	2	3	2	-	3
CO3	2	1	1	1	1	-	-	2	3	2	-	3
CO4	2	1	1	1	3	-	-	2	3	2	-	3
CO5	2	1	1	1	3	-	-	2	3	2		3
Average	2.2	1	1	1.4	3	-	0.2	2	3	2	0.2	3

Note: 1- Low, 2- Moderate, 3- High


Course Coordinator


Module Coordinator


HoD CSE (AI&ML)

(21-25) M. Ravindran

ESTD: 2009



CMR TECHNICAL CAMPUS
UGC AUTONOMOUS
Accredited by NBA & NAAC with 'A' Grade
Approved by AICTE, New Delhi and JNTU, Hyderabad
Kandlakoya, Medchal Road, Hyderabad- 501 401, Telangana



DEPARTMENT OF CSE(AI&ML)

CO-PSO Mapping

Course Name : **SCRIPTING LANGUAGES**

Regulation : **R20**

Year & Sem: **B. Tech. IV year II Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name : **RAMESH A**

Course Code: **20CS832OE**

Course Outcomes:

At the end of the Course , Student will be able to	
CO#	Course Outcome
CO1	Comprehend the SOAP architecture and web services.
CO2	Describe the Ruby scripting language.
CO3	Apply the basic Perl programming language.
CO4	Implement the advanced programming in PERL.
CO5	Apply TCL programming.

CO-PSO Mapping :

	PSO1	PSO2	PSO3
CO1	3	2	1
CO2	3	2	1
CO3	3	2	1
CO4	3	2	1
CO5	3	2	1
Average	3	2	1

Note: 1-Low ,2- Moderate , 3-High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)

DEPARTMENT OF CSE(AI&ML)

CO-PO Mapping

Course Name : **SCRIPTING LANGUAGES**

Regulation : **R20**

Year & Sem: **B. Tech. IV year II Sem**

Branch: **CSE(AI&ML)**

Course Coordinator Name : **Mr. Ramesh A**

Course Code: **20CS832OE**

Course Outcomes:

At the end of the course, student will be able to	
CO#	Course Outcome
CO1	Comprehend the SOAP architecture and web services.
CO2	Describe the Ruby scripting language.
CO3	Apply the basic Perl programming language.
CO4	Implement the advanced programming in PERL.
CO5	Apply TCL programming.

CO-PO Mapping :

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
CO1	3	3	3	3	1	-	-	-	-	-	-	1
CO2	3	3	3	3	2	-	-	-	-	-	-	1
CO3	3	3	3	3	1	-	-	-	-	-	-	1
CO4	3	3	3	2	2	-	-	-	-	-	-	1
CO5	3	3	3	2	2	-	-	-	-	-	-	1
Average	3	3	3	3	1.6	-	-	-	-	-	-	1

Note : 1- Low , 2- Moderate ,3- High


Course Coordinator


Module Coordinator


HoD CSE(AI&ML)