

**Department of CSE [Artificial Intelligence & Machine Learning]**

**Course Coordinators list for 2021-2025 Batch**

S.No.	Course Code	Course Title	Course Coordinator
<b>I SEMESTER</b>			
1	C101	Algebra and Calculus	Dr M.Swetha
2	C102	Engineering Chemistry	K.Saritha
3	C103	Programming for problem solving	K Rajinikanth
4	C104	English	K.Ranjith Kumar
5	C105	Engineering Workshop	D.Sravani
6	C106	Engineering Chemistry Lab	K.Saritha
7	C107	English Language and Communication Skills Lab	K.Ranjith Kumar
8	C108	Programming for Problem Solving Lab	K Rajinikanth
<b>II SEMESTER</b>			
9	C109	Ordinary Differential Equations and Vector Calculus	M. K. Vasumathy
10	C110	Applied Physics	M.Naresh Kumar
11	C111	Basic Electronics & Electrical Engineering	J.Ratna Babu
12	C112	Engineering Graphics	M.Gowtham
13	C113	Applied Physics Lab	M.Naresh Kumar
14	C114	Basic Electrical & Electronics Engineering Lab	J.Ratna Babu
15	C115	Basic Elements of Engineering Technology	M.Sravanthi
<b>III SEMESTER</b>			
16	C201	Design & Analysis Algorithms	Dr.K.Mahesh
17	C202	Data Structures using C	M.Ravindran
18	C203	OOPS Through Java	S. Ramchandra Reddy
19	C204	Theory of Computation	G. Parvathi Devi
20	C205	Programming with Python	Dr S Rao Chintalapudi
21	C206	Data Structure using C Lab	M.Ravindran
22	C207	Python Lab	Dr S Rao Chintalapudi
23	C208	OOPS Through Java Lab	S. Ramchandra Reddy
<b>IV SEMESTER</b>			
24	C209	Data Base Management Systems	B. Swaroopa Rani
25	C210	Analog and Digital Electronics	K.Prasanna kumari
26	C211	Computer Oriented Statistical Methods	Dr.K.Bhagya Lakshmi
27	C212	Operating Systems	M.Ravindran
28	C213	Computer Organization	Dr. G. Vinoda Reddy
29	C214	OS Lab	M.Ravindran
30	C215	DBMS Lab	B. Swaroopa Rani
31	C216	Analog and Digital Electronics Lab	K.Prasanna kumari
<b>V SEMESTER</b>			

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32	C301	Data Mining	M.Balaji
33	C302	Computer Networks	U.Saritha
34	C303	Web Technologies	I.Kranthi Kumar
35	C304	Object Oriented Analysis and Design	Dr. K. Mahesh
36	C305	Natural Language Processing	K.Nagamani
37	C306	Data Mining Lab	M.Balaji
38	C307	Computer Networks & Web Technologies Lab	V.Ravinder Naik
39	C308	R Programming Lab	Sk.Sharif
<b>VI SEMESTER</b>			
40	C309	Artificial Intelligence	B. Prashanth
41	C310	Compiler Design	G. Parvathi Devi
42	C311	Software Engineering	U. Saritha
43	C312	Software Testing Methodologies	B. Swaroopa Rani
44	C313	Introduction to data science	Dr.G.Vinoda Reddy
45	C314	Artificial Intelligence Lab	B. Prashanth
46	C315	Advanced Communication Skills Lab	K.Ranjith Kumar
47	C316	Software Testing Methodologies Lab	B. Swaroopa Rani
<b>VII SEMESTER</b>			
48	C401	Business Economics & Financial Analysis	D.Kanaka Durga
49	C402	Machine Learning	B. Swaroopa Rani
50	C403	Cloud Computing	G. Parvathi Devi
51	C404	Deep Learning	M. Ravindran
52	C405	Information Retrieval system	A. Ramesh
53	C406	Machine Learning Lab	B. Swaroopa Rani
54	C407	Industry Oriented Mini Project	Dr V.Malsoru
55	C408	Seminar	Dr V.Malsoru
56	C409	Project Stage-I	Dr V.Malsoru
<b>VIII SEMESTER</b>			
57	C410	Organizational Behaviour	Dr P Mallika Rao
58	C411	Cyber Forensics	R.Lavanya
59	C412	Scripting Languages	A. Ramesh
60	C413	Project Stage-II	Dr V.Malsoru

  
Coordinator

  
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Kandlakoya (V), Medchal Road,  
Hyderabad, Telangana - 501 401.

**Department of CSE [Artificial Intelligence & Machine Learning]**

**Module Coordinators list for 2021-2025 Batch**

S.No	Course Code	Course Title	Module Name	Module Coordinator	Signature
1	C101	Algebra and Calculus	Basic Sciences & Humanities	M. Rajender	MPL
2	C109	Ordinary Differential Equations and Vector Calculus	Basic Sciences & Humanities	M. Rajender	
3	C211	Computer Oriented Statistical Methods	Basic Sciences & Humanities	M. Rajender	
4	C102	Engineering Chemistry	Basic Sciences & Humanities	Dr. T. Leena Vinolia	L
5	C106	Engineering Chemistry Lab	Basic Sciences & Humanities	Dr. T. Leena Vinolia	
6	C104	English	Basic Sciences & Humanities	K. Ranjith Kumar	Ray
7	C107	English Language and Communication Skills Lab	Basic Sciences & Humanities	K. Ranjith Kumar	
8	C105	Engineering Workshop	Basic Sciences & Humanities	M. Gowtham	Mube
9	C112	Engineering Graphics	Basic Sciences & Humanities	M. Gowtham	
10	C110	Applied Physics	Basic Sciences & Humanities	M. Naresh Kumar	Nay
11	C113	Applied Physics Lab	Basic Sciences & Humanities	M. Naresh Kumar	
12	C114	Basic Elements of Engineering Technology	Basic Sciences & Humanities	M. Sravanthi	Sriv
13	C316	Advanced Communication Skills Lab	Basic Sciences & Humanities	G. Shilpa Chandrika	
14	C111	Basic Electronics & Electrical Engineering	Basic Electrical and Engineering	K.Prasanna Kumari	Prasanna
15	C114	Basic Electrical & Electronics Engineering Lab	Basic Electrical and Engineering	K.Prasanna Kumari	
16	C211	Analog and Digital Electronics	Basic Electrical and Engineering	K.Prasanna Kumari	
17	C217	Analog and Digital Electronics Lab	Basic Electrical and Engineering	K.Prasanna Kumari	
18	C103	Programming for problem Solving	Programming Languages	M.Ravindran	PL
19	C108	Programming for Problem Solving Lab	Programming Languages	M.Ravindran	
20	C203	OOPS Through Java	Programming Languages	M.Ravindran	
21	C205	Programming with Python	Programming Languages	M.Ravindran	
22	C207	Python Lab	Programming Languages	M.Ravindran	
23	C208	OOPS Through Java Lab	Programming Languages	M.Ravindran	
24	C209	Data Base Management Systems	Programming Languages	M.Ravindran	
25	C215	Data Base Management Systems Lab	Programming Languages	M.Ravindran	
26	C303	Web Technologies	Programming Languages	M.Ravindran	
27	C307	Computer Networks & Web Technologies Lab	Programming Languages	M.Ravindran	
28	C308	R Programming Lab	Programming Languages	M.Ravindran	
29	C412	Scripting Languages	Programming Languages	M.Ravindran	
30	C405	Information Retrieval System	Computer Science	M.Ravindran	
31	C201	Design & Analysis Algorithms	Computer Science	Dr. G. Vinoda Reddy	
32	C202	Data Structures using C	Computer Science	Dr. G. Vinoda Reddy	
33	C204	Theory of Computation	Computer Science	Dr. G. Vinoda Reddy	
34	C206	Data Structure using C Lab	Computer Science	Dr. G. Vinoda Reddy	

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35	C212	Operating Systems	Computer Science	Dr. G. Vinoda Reddy	
36	C213	Computer Organization	Computer Science	Dr. G. Vinoda Reddy	
37	C214	Operating Systems Lab	Computer Science	Dr. G. Vinoda Reddy	
38	C302	Computer Networks	Computer Science	Dr. G. Vinoda Reddy	
39	C310	Compiler Design	Computer Science	Dr. G. Vinoda Reddy	
40	C311	Software Engineering	Computer Science	Dr. G. Vinoda Reddy	
41	C312	Software Testing Methodologies	Computer Science	Dr. G. Vinoda Reddy	
42	C316	Software Testing Methodologies Lab	Computer Science	Dr. G. Vinoda Reddy	
43	C411	Cyber Forensics	Computer Science	Dr. G. Vinoda Reddy	
44	C304	Object Oriented Analysis and Design	Computer Science	Dr. G. Vinoda Reddy	
45	C301	Data Mining	Data Science	Dr. K. Mahesh	
46	C306	Data Mining Lab	Data Science	Dr. K. Mahesh	
47	C313	Introduction to Data Science	Data Science	Dr. K. Mahesh	
48	C403	Cloud Computing	Data Science	Dr. K. Mahesh	
49	C305	Natural Language Processing	Artificial Intelligence	Dr. S Rao Chintalapudi	
50	C309	Artificial Intelligence	Artificial Intelligence	Dr. S Rao Chintalapudi	
51	C314	Artificial Intelligence Lab	Artificial Intelligence	Dr. S Rao Chintalapudi	
52	C402	Machine Learning	Artificial Intelligence	Dr. S Rao Chintalapudi	
53	C404	Deep Learning	Artificial Intelligence	Dr. S Rao Chintalapudi	
54	C406	Machine Learning Lab	Artificial Intelligence	Dr. S Rao Chintalapudi	
55	C401	Business Economics & Financial Analysis	Management	D.Kanaka Durga	
56	C410	Organizational Behaviour	Management	D.Kanaka Durga	
57	C407	Industry Oriented Mini Project	Seminar & Project	Dr. V.Malsoru	
58	C408	Seminar	Seminar & Project	Dr. V.Malsoru	
59	C409	Project Stage-I	Seminar & Project	Dr. V.Malsoru	
60	C413	Project Stage-II	Seminar & Project	Dr. V.Malsoru	

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Algebra and Calculus**

**Year & Sem: I – I**

**Course Coordinator Name: M. Swetha**

**Regulation: R20**

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

**Course Code: C101**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C101.1	Describe the matrix representation of linear equations.
C101.2	Evaluate Eigen values and Eigen vectors.
C101.3	Analyze the nature of convergence of sequence and series.
C101.4	Interpret Mean value theorems to applications.
C1015	Determine the extreme values of functions of two variables with/ without constraints.

**CO-PO MAPPING:**

CO#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO12
C101.1	3	2	-	-	2	-	-	-	-	-	-	-
C101.2	3	2	2	2	2	-	-	-	-	-	-	-
C101.3	3	3	2	2	-	-	-	-	-	-	-	-
C101.4	3	2	3	3	2	-	-	-	-	-	-	2
C1015	3	-	2	2	2	-	-	-	-	-	-	-
<b>Average</b>	<b>3</b>	<b>2.25</b>	<b>2.25</b>	<b>2.25</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>

**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C101.1	2	-	-
C101.2	3	-	2
C101.3	3	-	-
C101.4	3	-	2
C1015	3	-	-
<b>Average</b>	<b>2.8</b>	<b>-</b>	<b>2.0</b>

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

  
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## Department of CSE [Artificial Intelligence & Machine Learning]

### CO-PO-PSO MAPPING

Course Name: Engineering Chemistry

Year &amp; Sem: I – I

Course Coordinator Name: K. Saritha

Regulation: R20

Branch: CSE (AI&amp;ML)

Course Code: C102

### Course Outcomes:

At the end of the course student will be able to

CO#	Course Outcome
C102.1	Describe the atomic, molecular and complex compound structures.
C102.2	Analyze different water treatment methodologies.
C102.3	Demonstrate the principles and concepts of electro chemistry and corrosion .
C102.4	Illustrate stereo chemistry and reaction mechanisms.
C102.5	Summarize the Spectroscopic techniques and its applications.

### CO-PO MAPPING:

C0#	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C102.1	3	2	2	2	-	-	-	-	-	-	-	-
C102.2	2	3	2	2	2	-	-	-	-	-	-	2
C102.3	2	2	2	3	2	2	2	-	-	-	-	-
C102.4	2	2	2	3	2	-	-	-	-	-	-	-
C102.5	2	2	2	2	2	-	-	-	-	-	-	-
<b>Average</b>	2.2	2.2	2	2.4	2	2	2	-	-	-	-	2

### CO-PSO MAPPING:

	PSO1	PSO2	PSO3
C102.1	2	-	-
C102.2	3	-	2
C102.3	2	-	2
C102.4	2	-	2
C102.5	2	-	-
<b>Average</b>	2.2	-	2

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



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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Programming for Problem Solving**

**Year & Sem: I - I**

**Course Coordinator Name: Rajinikanth**

**Regulation: R20**

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

**Course Code: C103**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C103.1	Illustrate algorithms and flowcharts for solving problems.
C103.2	Demonstrate arrays, pointers, strings and structures.
C103.3	Explore file handling techniques.
C103.4	Analyze various functions and dynamic memory allocation.
C103.5	Summarize various sorting and searching algorithms.

**CO-PO MAPPING:**

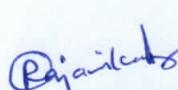
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C103.1	3	2	3	3	3	-	-	-	-	-	-	2
C103.2	2	2	3	3	3	-	-	-	-	-	-	2
C103.3	2	2	2	3	2	-	-	-	-	-	-	2
C103.4	2	3	2	3	2	-	-	-	-	-	-	2
C103.5	2	2	3	2	2	-	-	-	-	-	-	2
<b>Average</b>	2.2	2.2	2.60	2.8	2.40	-	-	-	-	-	-	2

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

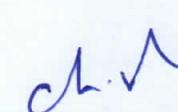
**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C103.1	3	2	2
C103.2	3	2	-
C103.3	3	-	2
C103.4	3	-	2
C103.5	3	2	-
<b>Average</b>	3.0	2.0	2.0

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: English**

**Year & Sem: I - I**

**Course Coordinator Name: K.Ranjith Kumar**

**Regulation: R20**

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

**Course Code: C104**

**Course Outcomes:**

At the end of the course student will be able to

C104.1	Generate ideas and create effective sentence structures in spoken and written forms.
C104.2	Comprehend passages and texts critically and respond appropriately.
C104.3	Select specific approaches to study and retain information.
C104.4	Interpret technical content using theoretical and practical components of English language.
C104.5	Communicate effectively in formal and informal contexts..

**CO-PO MAPPING:**

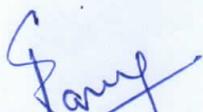
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C104.1	2	-	2	-	-	-	-	-	2	3	-	3
C104.2	2	-	-	2	-	-	-	-	2	3	-	-
C104.3	2	-	-	-	-	-	-	-	2	2	-	-
C104.4	2	-	-	3	-	-	-	-	3	3	-	-
C104.5	2	-	-	-	-	-	-	-	3	3	2	3
<b>Average</b>	<b>2</b>	<b>-</b>	<b>2</b>	<b>2.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.4</b>	<b>2.8</b>	<b>2</b>	<b>3.0</b>

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

**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C104.1	2	-	3
C104.2	2	-	3
C104.3	2	-	3
C104.4	2	-	3
C104.5	2	-	3
<b>Average</b>	<b>2.0</b>	<b>-</b>	<b>3.0</b>

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

  
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**Module Coordinator**

  
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### Department of CSE [Artificial Intelligence & Machine Learning]

#### CO-PO-PSO MAPPING

Course Name: Engineering Workshop

Year & Sem: I - I

Course Coordinator Name: D.Sravani

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C105

#### Course Outcomes:

At the end of the course student will be able to

CO#	Course Outcome
C105.1	Create the different patterns with desired shape and size by using wood.
C105.2	Assemble different components to create a product by fitting operations.
C105.3	Synthesize the material into product using smithy methods.
C105.4	Demonstrate casting process using molten metal.
C105.5	Explore the welding and plumbing process.

#### CO-PO MAPPING:

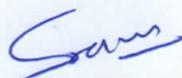
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C105.1	2	-	-	-	2	-	-	-	2	-	-	-
C105.2	2	-	2	-	2	-	-	-	3	-	-	3
C105.3	2	-	2	-	2	-	-	-	-	-	-	-
C105.4	2	-	2	-	2	-	-	-	2	-	-	-
C105.5	2	-	2	-	2	-	-	-	2	2	-	-
<b>Average</b>	2	-	2	-	2.0	-	-	-	2.25	2.0	-	3.0

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

#### CO-PSO MAPPING:

	PSO1	PSO2	PSO3
C105.1	2	2	-
C105.2	2	2	-
C105.3	2	2	-
C105.4	2	-	2
C105.5	2	-	-
<b>Average</b>	2.0	2.0	2

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

Course Name: Engineering Chemistry Lab

Year & Sem: I - I

Course Coordinator Name: K.Saritha

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C106

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C106.1	Determine hardness and chloride content in water.
C106.2	Estimate reactions from concentration and time relationships.
C106.3	Calculate Rf values of organic molecules using TLC techniques.
C106.4	Illustration of conductometry, potentiometry and colorimetry
C106.5	Analyze surface tension and viscosity of solvents.

**CO-PO MAPPING:**

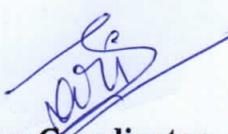
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C106.1	2	2	3	2	2	-	-	-	-	-	-	3
C106.2	2	2	2	3	2	-	-	-	-	-	-	-
C106.3	2	2	3	3	2	-	-	-	-	-	-	-
C106.4	2	2	2	3	2	-	-	-	-	2	-	-
C106.5	2	3	2	2	2	-	-	-	-	-	-	-
<b>Average</b>	2.0	2.2	2.40	2.6	2.0	-	-	-	-	2.0	-	3.0

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

**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C106.1	2	-	3
C106.2	2	-	-
C106.3	2	-	-
C106.4	2	-	-
C106.5	2	-	-
<b>Average</b>	2.0	-	3.0

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

  
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Module Coordinator

  
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### Department of CSE [Artificial Intelligence & Machine Learning]

#### CO-PO-PSO MAPPING

Course Name: English Language and Communication Skills Lab Regulation: R20  
Year & Sem: I – I Branch: CSE (AI&ML)  
Course Coordinator Name: K. Ranjith Kumar Course Code: C107

#### Course Outcomes:

At the end of the course student will be able to

CO#	Course Outcome
C107.1	Demonstrate accents through audio- visual experience and practice.
C107.2	Apply Pronounce English sounds according to standard pronunciation (RP of England).
C107.3	Express fluently and clearly in English.
C107.4	Revise their speech by Neutralizing the accent.
C107.5	Practice presentations and discussions effectively and confidently.

#### CO-PO MAPPING:

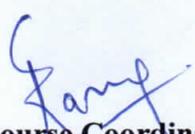
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C107.1	1	-	-	-	-	-	-	-	2	3	-	2
C107.2	2	-	-	-	-	-	-	-	2	3	-	2
C107.3	2	-	-	-	-	-	-	-	2	3	-	2
C107.4	2	-	-	-	-	-	-	-	2	3	-	3
C107.5	2	-	-	-	-	-	-	-	2	3	-	3
<b>Average</b>	1.8	-	-	-	-	-	-	-	2	3.0	-	2.4

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

#### CO-PSO MAPPING:

	PSO1	PSO2	PSO3
C107.1	2	-	3
C107.2	2	-	3
C107.3	2	-	3
C107.4	-	-	3
C107.5	2	-	3
<b>Average</b>	2	-	3.0

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

  
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CMR Technical Campus  
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Hyderabad, Telangana - 501401.

### Department of CSE [Artificial Intelligence & Machine Learning]

#### CO-PO-PSO MAPPING

Course Name: Programming For Problem Solving Lab

Year & Sem: I - I

Course Coordinator Name: K. Ranjith Kumar

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C108

#### Course Outcomes:

At the end of the course student will be able to

CO#	Course Outcome
C108.1	Solve the problems through programming.
C108.2	Demonstrate arrays, pointers and functions for different types of problems.
C108.3	Illustrate the file operations.
C108.4	Explore various String manipulation techniques.
C108.5	Implement various sorting and searching techniques.

#### CO-PO MAPPING:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C108.1	3	3	3	3	3	-	-	-	-	3	2	2
C108.2	2	2	3	3	3	-	-	-	3	3	-	3
C108.3	2	2	3	3	3	-	-	-	-	-	-	2
C108.4	2	2	2	2	3	-	-	-	-	-	-	2
C108.5	2	2	3	3	3	-	-	-	-	-	2	3
<b>Average</b>	2.2	2.2	2.8	2.8	3.0	-	-	-	3.0	3.0	2.0	2.4

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

#### CO-PSO MAPPING:

	PSO1	PSO2	PSO3
C108.1	3	2	-
C108.2	2	2	2
C108.3	2	2	-
C108.4	2	2	-
C108.5	2	3	-
<b>Average</b>	2.2	2.2	2.0

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Ordinary Differential Equations and Vector Calculus Regulation: R20**  
**Year & Sem: I - II**  
**Course Coordinator Name: M. K. Vasumathy**

**Branch: CSE (AI&ML)**  
**Course Code: C109**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C109.1	Demonstrate First Order Differential Equations and its applications.
C109.2	Solve higher order differential equations for real world problems.
C109.3	Evaluate the multiple integrals for different applications.
C109.4	Illustrate vector differentiation.
C109.5	Apply Vector Integration and their conversion.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C109.1	3	2	2	2		-	-	-	-	-	-	-
C109.2	3	2	3	3	2	-	-	-	-	-	-	2
C109.3	3	2	2	3	3	-	-	-	-	-	-	2
C109.4	3	2	2	2		-	-	-	-	-	-	-
C109.5	2	2	2	2	-	-	-	-	-	-	-	-
<b>Average</b>	<b>2.8</b>	<b>2</b>	<b>2.20</b>	<b>2.4</b>	<b>2.5</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2</b>

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

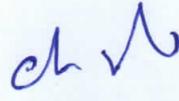
**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C109.1	2	-	2
C109.2	2	-	2
C109.3	2	-	-
C109.4	2	-	-
C109.5	2	-	-
<b>Average</b>	<b>2.0</b>	<b>-</b>	<b>2.0</b>

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

Course Name: Applied Physics

Year & Sem: I - II

Course Coordinator Name: M. Naresh Kumar

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C110

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C110.1	Describe Quantum mechanics and principles.
C110.2	Analyze the Semiconductor devices and its characteristics.
C110.3	Demonstrate optics phenomenon and applications.
C110.4	Explore different Laser techniques and principles of fibre optics.
C110.5	Identify Dielectric and Magnetic Properties of Materials.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C110.1	3	2	2	2	-	-	-	-	-	-	-	-
C110.2	2	3	2	2	-	-	-	-	-	-	-	-
C110.3	2	2	3	2	-	-	-	-	-	-	-	-
C110.4	2	2	2	2	-	-	-	-	-	-	-	-
C110.5	2	3	2	2	-	-	-	-	-	-	-	-
<b>Average</b>	2.2	2.4	2.2	2.2	-	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C110.1	2	-	-
C110.2	2	-	-
C110.3	2	-	-
C110.4	2	-	-
C110.5	2	-	-
<b>Average</b>	2.0	-	-

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

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Module Coordinator

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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Basic Electrical & Electronics Engineering**

**Year & Sem: I- II**

**Course Coordinator Name: J.Ratna Babu**

**Regulation: R20**

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

**Course Code: C111**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C111.1	Analyze the basic Electrical circuits using different network reduction techniques.
C111.2	Describe the components of low Voltage Electrical Installations.
C111.3	Explore working principles of Electrical Machines.
C111.4	Illustrate characteristics of diodes and its applications.
C111.5	Summarize characteristics of transistors and their applications.

**CO-PO MAPPING:**

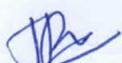
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C111.1	2	3	2	2	-	-	-	-	-	-	-	-
C111.2	2	2	2	-	-	-	-	-	-	-	-	-
C111.3	2	2	2	-	-	-	-	-	-	-	-	-
C111.4	2	2	3	2	-	-	-	-	-	-	-	-
C111.5	2	2	2	2	-	-	-	-	-	-	-	-
<b>Average</b>	2	2.2	2.2	2	-	-	-	-	-	-	-	-

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

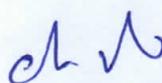
**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C111.1	2	-	-
C111.2	2	-	-
C111.3	2	-	-
C111.4	-	-	-
C111.5	-	-	-
<b>Average</b>	2.0	-	-

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

  
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**Module Coordinator**

  
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**Department of CSE [Artificial Intelligence & Machine Learning]****CO-PO-PSO MAPPING**

Course Name: Engineering Graphics

Year &amp; Sem: I - II

Course Coordinator Name: M.Gowtham

Regulation: R20

Branch: CSE (AI&amp;ML)

Course Code: C112

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C112.1	Describe basics of engineering drawing.
C112.2	Implement different types of projections.
C112.3	Analyze Auxiliary views.
C112.4	Develop section views and true shape section of various types of solids.
C112.5	Explore the different Isometric Projections.

**CO-PO MAPPING:**

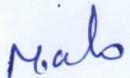
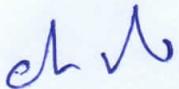
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C112.1	3	2	2	-	-	-	-	-	-	-	-	-
C112.2	2	2	3	3	3	-	-	-	-	-	-	-
C112.3	2	3	2	3	3	-	-	-	-	-	-	-
C112.4	2	2	3	3	3	-	-	-	-	-	-	-
C112.5	3	2	2	2	2	-	-	-	-	-	-	-
<b>Average</b>	2.4	2.2	2.4	2.75	2.75	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C112.1	3	-	-
C112.2	-	3	-
C112.3	3	-	-
C112.4	-	3	-
C112.5	-	3	-
<b>Average</b>	3.0	3.0	-

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

Course Name: Applied Physics Lab

Year & Sem: I-II

Course Coordinator Name: M.Naresh Kumar

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C113

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C113.1	Analyze the characteristics of Light.
C113.2	Explore the characteristics of the material using pendulum method.
C113.3	Determine the characteristics of different electric circuits.
C113.4	Demonstrate V-I characteristics of LASER and semi-conductor devices.
C113.5	Illustrate the different characteristics of optical fibre.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C113.1	2	3	2	2	2	-	-	-	-	-	-	-
C113.2	2	2	2	2	3	-	-	-	-	-	-	-
C113.3	2	2	3	3	3	-	-	-	-	-	-	-
C113.4	2	2	3	3	3	-	-	-	2	2	-	-
C113.5	2	2	2	3	3	-	-	-	2	-	-	-
<b>Average</b>	2	2.2	2.40	2.6	2.80	-	-	-	2	2	-	-

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

**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C113.1	2	-	-
C113.2	2	-	-
C113.3	-	-	-
C113.4	-	-	-
C113.5	2	-	-
<b>Average</b>	2.0	-	-

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

*Naresh*  
Course Coordinator

*Naresh*  
Module Coordinator

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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Basic Electrical & Electronics Engineering Lab** Regulation: R20  
**Year & Sem: I-II** Branch: CSE (AI&ML)  
**Course Coordinator Name: J Ratna Babu** Course Code: C114

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C114.1	Analyze various electrical networks using circuit laws.
C114.2	Demonstrate the performance of DC Motors and single-phase transformer.
C114.3	Explore the performance of three phase induction motors and alternators.
C114.4	Illustrate the characteristics of semi-conductor devices.
C114.5	Describe the half wave and full wave rectifiers.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C114.1	2	3	2	2	-	-	-	-	-	-	-	-
C114.2	2	2	2	3	-	-	-	-	3	3	-	2
C114.3	2	2	2	2	-	-	-	-	2	-	-	-
C114.4	2	2	2	2	-	-	-	-	-	-	-	2
C114.5	3	2	2	2	-	-	-	-	-	-	-	-
<b>Average</b>	2.2	2.2	2	2.2	-	-	-	-	2.5	3.0	-	2.0

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

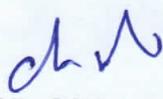
**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C114.1	2	-	2
C114.2	2	-	-
C114.3	-	-	-
C114.4	-	-	-
C114.5	2	-	-
<b>Average</b>	2.0	-	2.0

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

Course Name: Basic Elements of Engineering Technology

Year & Sem: I-II

Course Coordinator Name: M Sravanthi

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C115

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C115.1	Describe the computing hardware and network protocols.
C115.2	Explore the principles of IOT and its architecture.
C115.3	Outline the components and working principles of robot.
C115.4	Illustrate 3D printing and its applications.
C115.5	Develop the solution for various Engineering applications.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C115.1	2	2	2	2	2	-	-	-	-	-	-	2
C115.2	2	2	2	2	3	-	-	-	-	3	2	2
C115.3	2	2	2	2	-	-	-	-	-	-	-	-
C115.4	2	2	3	3	3	-	-	-	-	2	2	-
C115.5	-	2	3	3	3	-	-	-	3	3	3	3
<b>Average</b>	2.0	2.0	2.4	2.4	2.75	-	-	-	3.0	2.67	2.33	2.33

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

**CO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C115.1	2	-	2
C115.2	2	-	-
C115.3	2	-	2
C115.4	-	3	-
C115.5	-	3	3
<b>Average</b>	2.0	3.0	2.3

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

*M Sravanthi*  
Course Coordinator

*M Sravanthi*  
Module Coordinator

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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Design & Analysis Algorithms**

**Year & Sem: II-I**

**Course Coordinator Name: Dr. K Mahesh**

**Regulation: R20**

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

**Course Code: C201**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C201.1	Analyze the algorithms with respect to space and time.
C201.2	Design algorithms using divide and conquer, greedy approach.
C201.3	Apply dynamic programming strategy.
C201.4	Implement backtracking and branch and bound techniques.
C201.5	Explore NP- Hard and NP- complete problems using non-deterministic algorithms.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C201.1	2	3	2	-	-	-	-	-	-	-	-	-
C201.2	2	3	3	-	-	-	-	-	-	-	-	-
C201.3	3	3	3	-	-	-	-	-	-	-	-	-
C201.4	2	2	3	3	3	-	-	-	-	-	-	-
C201.5	2	3	3	3	3	-	-	-	-	-	-	-
<b>Average</b>	2.2	2.2	2.8	3.0	3.0	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C201.1	3	-	-
C201.2	-	3	-
C201.3	3	-	2
C201.4	-	3	2
C201.5	-	3	-
<b>Average</b>	3.0	3.0	2.0

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Data Structures using C**

**Year & Sem: II-I**

**Course Coordinator Name: M.Ravindran**

**Regulation: R20**

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

**Course Code: C202**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C202.1	Describe basic data structures.
C202.2	Analyze the hash table Representations.
C202.3	Implement Searching for trees.
C202.4	Apply sorting on the information.
C202.5	Design pattern Matching on a problem.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C202.1	3	2	2	2	-	-	-	-	-	-	-	-
C202.2	2	3	2	2	-	-	-	-	-	-	-	-
C202.3	2	2	3	3	3	-	-	-	-	-	-	2
C202.4	3	2	2	2	-	-	-	-	-	-	-	2
C202.5	2	2	3	3	3	-	-	-	-	-	-	-
<b>Average</b>	2.4	2.2	2.4	2.4	3	-	-	-	-	-	-	2

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C202.1	3	-	-
C202.2	3	-	-
C202.3	2	3	2
C202.4	3	-	-
C202.5	2	3	-
<b>Average</b>	2.6	3.0	2

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

  
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**CO-PO-PSO MAPPING**

**Course Name: OOPS Through Java**

**Year & Sem: II-I**

**Course Coordinator Name: S. Ramachandra Reddy**

**Regulation: R20**

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

**Course Code: C203**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C203.1	Solve real world problems using OOP techniques.
C203.2	Apply the packages and interfaces, streams in I/O.
C203.3	Implement exception handling and multithreaded Applications with synchronization.
C203.4	Develop the application using collection framework.
C203.5	Design GUI based Applications using applets and swings.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C203.1	3	3	3	3	3	-	-	-	-	-	-	2
C203.2	3	3	3	2	3	-	-	-	-	-	-	-
C203.3	2	2	3	3	3	-	-	-	-	-	-	2
C203.4	2	2	3	3	3	-	-	-	-	-	-	-
C203.5	2	3	3	3	3	-	-	-	-	-	-	2
<b>Average</b>	2.4	2.6	3.0	2.8	3.0	-	-	-	-	-	-	2

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

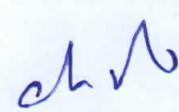
**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C203.1	3	-	3
C203.2	3	-	-
C203.3	-	3	2
C203.4	-	3	2
C203.5	-	3	2
<b>Average</b>	3.0	3.0	2.25

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Theory of Computation**

**Year & Sem: II-I**

**Course Coordinator Name: G.Parvathi Devi**

**Regulation: R20**

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

**Course Code: C204**

**Course Outcomes:**

At the end of the course student will be able to

C204.1	Describe abstract missions and their languages.
C204.2	Design the finite state mechanics using regular expressions.
C204.3	Implement context-free grammar for formal languages.
C204.4	Apply normalization to the context-free grammar.
C204.5	Distinguish between decidability and un-decidability problems

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C204.1	3	2	2	-	-	-	-	-	-	-	-	-
C204.2	2	2	3	3	3	-	-	-	-	-	-	2
C204.3	2	2	3	3	3	-	-	-	-	-	-	2
C204.4	3	2	2	3	2	-	-	-	-	-	-	-
C204.5	2	2	2	2	2	-	-	-	-	-	-	-
<b>Average</b>	2.4	2.0	2.4	2.5	2.5	-	-	-	-	-	-	2

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

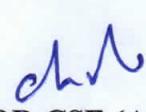
**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C204.1	3	-	-
C204.2	2	3	-
C204.3	2	3	-
C204.4	2	2	-
C204.5	2	-	-
<b>Average</b>	2.2	2.66	-

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Programming with Python**

**Year & Sem: II-I**

**Course Coordinator Name: Dr S Rao Chintalapudi**

**Regulation: R20**

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

**Course Code: C205**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C205.1	Examine Python syntax and semantics, flow control.
C205.2	Demonstrate proficiency in handling Strings and arrays
C205.3	Apply Python Programs using core data structures like Lists, Dictionaries and use Regular Expressions.
C205.4	Conduct experiments on file handling, exception handling, and modules.
C205.5	Interpret the concepts of Object-Oriented Programming as Used in Python.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C205.1	3	3	3	3	3	-	-	-	-	-	-	-
C205.2	3	3	3	3	3	-	-	-	-	-	-	-
C205.3	3	3	3	3	3	-	-	-	-	-	-	2
C205.4	3	2	3	3	3	-	-	-	-	-	-	-
C205.5	2	2	3	3	3	-	-	-	-	-	-	2
<b>Average</b>	<b>2.8</b>	<b>2.6</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>2.0</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C205.1	3	-	-
C205.2	2	2	-
C205.3	2	2	3
C205.4	2	2	-
C205.5	2	3	3
<b>Average</b>	<b>2.2</b>	<b>2.25</b>	<b>3.0</b>

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Data Structure using C Lab**

**Year & Sem: II-I**

**Course Coordinator Name: M.Ravindran**

**Regulation: R20**

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

**Course Code: C206**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C206.1	Demonstrate the linked list operations.
C206.2	Implement stack operations and Queue operations.
C206.3	Apply sorting and searching techniques
C206.4	Illustrate Tree traversal techniques.
C206.5	Visualize Graph traversals.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C206.1	2	2	3	2	2	-	-	-	3	2	-	3
C206.2	2	2	3	3	3	-	-	-	2	-	3	3
C206.3	3	3	3	3	3	3	-	-	2	-	-	3
C206.4	2	2	3	3	3	-	-	-	2	-	3	3
C206.5	-	-	-	-	3	-	-	-	2	-	3	3
<b>Average</b>	2.25	2.25	3.0	2.75	2.8	3	-	-	2.2	2.0	3	3

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C206.1	-	3	-
C206.2	-	3	3
C206.3	3	-	-
C206.4	-	3	3
C206.5	-	-	-
<b>Average</b>	3.0	3.0	3.0

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Python Lab**

**Year & Sem: II-I**

**Course Coordinator Name: Dr S Rao Chintalapudi**

**Regulation: R20**

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

**Course Code: C207**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C207.1	Practice the basic concepts of python programming.
C207.2	Analyze various data structures.
C207.3	Design modular programming concepts.
C207.4	Explore file and error handling techniques.
C207.5	Implement object-oriented concepts.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C207.1	3	-	-	-	-	-	-	-	3	2	-	2
C207.2	-	3	-	-	-	-	-	-	2	-	-	-
C207.3	-	-	3	3	-	-	-	-	3	-	-	-
C207.4	-	-	-	3	3	-	-	-	2	2	-	2
C207.5	-	-	3	3	3	-	-	3	3	2	-	2
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	-	-	<b>3.0</b>	<b>2.6</b>	<b>2.0</b>	-	<b>2.0</b>

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

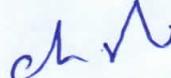
**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C207.1	-	-	2
C207.2	3	-	-
C207.3	-	3	-
C207.4	3	-	-
C207.5	-	3	2
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>

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

  
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**CO-PO-PSO MAPPING**

**Course Name: OOPS Through Java Lab**

**Year & Sem: II-I**

**Course Coordinator Name: S. Ramachandra Reddy**

**Regulation: R20**

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

**Course Code: C208**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C208.1	Solve real- world problems using java collection framework.
C208.2	Apply the sorting and file handling techniques.
C208.3	Implement trouble shooting and GUI programs using Swings.
C208.4	Illustrate exception handling and multithreaded applications.
C208.5	Design applications using Java Applets.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C208.1	3	3	3	3	3	-	-	-	3	3	3	3
C208.2	3	2	2	2	3	2	2	-	-	-	-	-
C208.3	2	2	3	3	3	-	-	2	3	-	2	-
C208.4	2	2	3	3	3	-	-	-	2	3	-	-
C208.5	2	2	3	3	3	-	-	-	3	3	-	-
<b>Average</b>	<b>2.4</b>	<b>2.2</b>	<b>2.4</b>	<b>2.4</b>	<b>3.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.2</b>	<b>3.0</b>	<b>2.5</b>	<b>3.0</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C208.1	-	3	3
C208.2	3	-	-
C208.3	-	3	-
C208.4	-	3	-
C208.5	-	3	-
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>

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

  
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**CO-PO-PSO MAPPING**

**Course Name:** Database Management Systems  
**Year & Sem:** II-II  
**Course Coordinator Name:** B. Swaroopa Rani

**Regulation:** R20  
**Branch:** CSE (AI&ML)  
**Course Code:** C209

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C209.1	Analyze the logical design concepts of the database.
C209.2	Design the physical model of a database and its operations.
C209.3	Apply the SQL queries for efficient database management.
C209.4	Implement transaction processing and concurrency control.
C209.5	Examine different indexing mechanisms and database storage access.

**CO-PO MAPPING:**

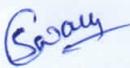
C209.1	3	3	-	-	-	-	-	-	-	-	-	-
C209.2	-	-	-	3	-	-	-	-	-	-	-	2
C209.3	3	3	3	3	-	-	-	-	-	-	-	2
C209.4	-	-	3	3	3	-	-	-	-	-	-	2
C209.5	-	-	-	3	3	-	-	-	-	-	-	-
<b>Average</b>	3.0	3.0	3.0	3.0	3.0	-	-	-	-	-	-	2

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C209.1	3	-	-
C209.2	-	3	-
C209.3	3	-	-
C209.4	-	3	2
C209.5	-	3	-
<b>Average</b>	3.0	3.0	2.0

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Analog and Digital Electronics**

**Year & Sem: II-II**

**Course Coordinator Name: K. Prasanna Kumari**

**Regulation: R20**

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

**Course Code: C210**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C210.1	Describe the utilization of components and its characteristics.
C210.2	Analyze the construction and functionalities of Field Effect Transistor.
C210.3	Apply postulates of Boolean algebra to the digital circuit functions.
C210.4	Design and analyze combinational circuits.
C210.5	Implement the sequential logic circuits.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C210.1	3	-	-	-	-	-	-	-	-	-	-	-
C210.2	2	3	3	-	-	-	-	-	-	-	-	-
C210.3	2	3	-	-	-	-	-	-	-	-	-	-
C210.4	2	3	3	3	-	-	-	-	-	-	-	-
C210.5	2	-	3	3	-	-	-	-	-	-	-	-
<b>Average</b>	<b>2.2</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	-	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C210.1	3	-	-
C210.2	3	-	-
C210.3	3	3	-
C210.4	-	3	-
C210.5	-	-	2
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>

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

*Prasanna*

**Course Coordinator**

*Prasanna*

**Module Coordinator**

*ch*

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**CO-PO-PSO MAPPING**

**Course Name: Computer Oriented Statistical Methods**

**Regulation: R20**

**Year & Sem: II-II**

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

**Course Coordinator Name: Dr. K. Bhagya Lakshmi**

**Course Code: C211**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C211.1	Describe the theory of probability.
C211.2	Testing the hypothesis and make inferences using sampling theory.
C211.3	Apply the probability and its distributions to the data.
C211.4	Solve algebraic equations using Numerical methods.
C211.5	Hypothesize the differential equations using Numerical methods.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO 10	PO 11	PO12
C211.1	3	3	-	3	-	-	-	-	-	-	-	-
C211.2	3	3	3	3	-	-	-	-	-	-	-	-
C211.3	3	3	3	-	-	-	-	-	-	-	-	-
C211.4	3	3	3	3	-	-	-	-	-	-	-	-
C211.5	3	3	-	-	-	-	-	-	-	-	-	-
<b>Average</b>	<b>3</b>	<b>3</b>	<b>3</b>	<b>3</b>	-	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C211.1	-	-	-
C211.2	3	-	-
C211.3	3	-	-
C211.4	3	-	-
C211.5	3	-	-
<b>Average</b>	<b>3</b>	-	-

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

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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Operating Systems**

**Year & Sem: II-II**

**Course Coordinator Name: M.Ravindran**

**Regulation: R20**

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

**Course Code: C212**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C212.1	Describe the operating system concepts.
C212.2	Analyze the CPU scheduling algorithms.
C212.3	Demonstrate Deadlocks and Processes Synchronization.
C212.4	Apply memory management strategies such as paging, segmentation and virtual memory.
C212.5	Apply files system interphase and operations.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C212.1	3	2	2	2	2	-	-	-	-	-	-	-
C212.2	2	3	2	3	2	-	-	-	-	-	-	-
C212.3	2	2	3	3	3	-	-	-	-	-	-	-
C212.4	2	2	3	3	3	-	-	-	-	-	-	-
C212.5	3	3	2	2	2	-	-	-	-	-	-	-
<b>Average</b>	2.4	2.4	2.4	2.6	2.4	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C212.1	3	-	-
C212.2	3	-	-
C212.3	2	3	2
C212.4	2	3	2
C212.5	3	-	-
<b>Average</b>	2.6	3.0	2.0

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



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### CO-PO-PSO MAPPING

**Course Name: Computer Organization**

**Year & Sem: II-II**

**Course Coordinator Name: Dr. G. Vinoda Reddy**

**Regulation: R20**

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

**Course Code: C213**

### **Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C213.1	Describe basic computer organization and architecture.
C213.2	Analyze the basics of instruction sets and their functionality.
C213.3	Evaluate arithmetical operations through central processing unit.
C213.4	Demonstrate the functional units of the computer.
C213.5	Explore the parallel processing mechanisms.

### **CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C213.1	3	3	-	-	-	-	-	-	-	-	-	-
C213.2	3	3	3	3	-	-	-	-	-	-	-	-
C213.3	-	3	3	3	3	-	-	-	-	-	-	-
C213.4	3	3	3	3	3	-	-	-	-	-	-	-
C213.5	3	3	3	3	3	-	-	-	-	-	-	-
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	-	-	-	-	-	-	-

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

### **CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C213.1	3	-	-
C213.2	3	-	-
C213.3	-	3	2
C213.4	-	3	2
C213.5	3	3	-
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>

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

  
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**CO-PO-PSO MAPPING**

**Course Name: OS Lab**

**Year & Sem: II-II**

**Course Coordinator Name: M. Ravindran**

**Regulation: R20**

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

**Course Code: C214**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C214.1	Demonstrate CPU scheduling algorithms.
C214.2	Explore I/O system calls.
C214.3	Simulate Banker's Algorithm for deadlock.
C214.4	Implement the Producer- Consumer Problem.
C214.5	Illustrate IPC mechanisms and memory management techniques.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C214.1	3	3	2	3	3	-	-	-	3	-	-	-
C214.2	3	3	2	3	2	-	-	-	2	-	-	-
C214.3	3	3	3	2	3	-	-	2	2	-	2	3
C214.4	3	3	3	3	3	-	-	-	3	-	3	3
C214.5	3	3	2	3	3	-	-	-	3	-	3	3
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.4</b>	<b>2.8</b>	<b>2.8</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>2.6</b>	<b>-</b>	<b>2.66</b>	<b>3</b>

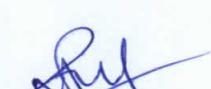
Note: 1-Low, 2-Moderate, 3-High

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C214.1	2	3	-
C214.2	3	-	-
C214.3	-	3	-
C214.4	-	3	2
C214.5	-	2	2
<b>Average</b>	<b>2.5</b>	<b>2.75</b>	<b>2.0</b>

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

  
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**CO-PO-PSO MAPPING**

**Course Name: DBMS Lab**

**Year & Sem: II-II**

**Course Coordinator Name: B. Swaroopa Rani**

**Regulation: R20**

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

**Course Code: C215**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C215.1	Demonstrate the database design using E-R diagrams.
C215.2	Design the relational model using normalization.
C215.3	Apply SQL queries for data manipulation.
C215.4	Implement Procedural language.
C215.5	Illustrate various Triggers and Cursors for database.

**CO-PO MAPPING:**

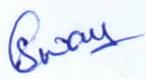
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C215.1	-	3	-	3	3	-	-	-	3	3	-	-
C215.2	-	-	3	-	-	-	-	2	3	-	-	2
C215.3	3	3	-	-	-	-	-	-	3	-	-	2
C215.4	-	-	3	3	3	-	-	2	3	-	-	2
C215.5	-	-	3	3	3	-	-	-	3	3	-	-
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>-</b>	<b>-</b>	<b>2.0</b>	<b>3.0</b>	<b>3.0</b>	<b>-</b>	<b>2</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C215.1	3	-	-
C215.2	-	3	-
C215.3	3	-	-
C215.4	-	3	2
C215.5	-	3	2
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Analog and Digital Electronics Lab**

**Year & Sem: II-II**

**Course Coordinator Name: K.Prasanna Kumari**

**Regulation: R20**

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

**Course Code: C216**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C216.1	Describe the characteristics of UJT.
C216.2	Analyze the characteristics of Diode, FET and JFET.
C216.3	Implement the Boolean expressions using Gates.
C216.4	Design Adder and Subtractor.
C216.5	Illustrate the sequential circuits for counters.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C216.1	3	-	-	-	-	-	-	-	-	-	-	-
C216.2	-	3	-	-	-	-	-	-	-	-	-	-
C216.3	-	-	3	3	3	-	-	-	2		2	2
C216.4	-	-	3	3	3	-	-	-	2		2	2
C216.5	-	-	3	3	3	-	-	-	2		2	2
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	-	-	-	<b>2</b>		<b>2</b>	<b>2</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C216.1	3	-	-
C216.2	3	-	-
C216.3	-	3	2
C216.4	-	3	-
C216.5	-	3	2
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Data Mining**

**Year & Sem: III – I**

**Course Coordinator Name: M.Balaji**

**Regulation: R20**

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

**Course Code: C301**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C301.1	Differentiate types of data mining and primitives of data mining.
C301.2	Extract interesting patterns from large amounts of data.
C301.3	Discover the classification of data mining in various fields.
C301.4	Implement clustering applications.
C301.5	Analyze and extract insights from continuous data streams, enabling real time decision making.

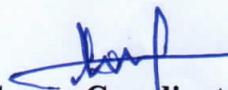
**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C301.1	3	2	2	2	2	-	-	-	-	-	-	-
C301.2	3	3	2	2	2	-	-	-	-	-	-	2
C301.3	3	3	3	3	3	-	-	-	-	-	-	3
C301.4	2	2	3	3	3	-	-	-	-	-	-	-
C301.5	2	3	2	2	2	-	-	-	-	-	-	-
Average	2.6	2.6	2.4	2.4	2.4	-	-	-	-	-	-	2.5

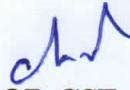
**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C301.1	3	-	-
C301.2	3	-	3
C301.3	3	3	3
C301.4	2	3	-
C301.5	2	-	-
Average	2.6	3.0	3.0

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Computer Networks**

**Year & Sem: III-1**

**Course Coordinator Name: U. Saritha**

**Regulation: R20**

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

**Course Code: C302**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C302.1	Describe the basic concepts of reference models.
C302.2	Apply sliding window and multiple access protocols.
C302.3	Design routing algorithms and congestion control techniques
C302.4	Analyze the transport layer services and protocols.
C302.5	Illustrate application layer protocols.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C302.1	3	2	2	2	-	-	-	-	-	-	-	-
C302.2	3	2	2	3	-	-	-	-	-	-	-	-
C302.3	-	2	3	3	2	-	-	-	-	-	-	-
C302.4	-	3	2	3	2	-	-	-	-	-	-	-
C302.5	2	2	3	3	3	-	-	-	-	-	-	-
Average	2.66	2.2	2.4	2.8	2.33	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C302.1	3	-	-
C302.2	3	-	-
C302.3	-	3	2
C302.4	3	2	-
C302.5	-	3	-
Average	3.0	2.66	2.0

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



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**CO-PO-PSO MAPPING**

**Course Name: Web Technologies**

**Year & Sem: III-1**

**Course Coordinator Name: I. Kranthi Kumar**

**Regulation: R20**

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

**Course Code: C303**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C303.1	Apply server-side scripting with PHP language.
C303.2	Demonstrate parsing XML Data with Java.
C303.3	Develop Server-side programs with Java Servlets.
C303.4	Implement JSP pages using Cookies and Session tracking.
C303.5	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
C303.1	3	3	3	2	2	-	-	-	-	-	-	2
C303.2	2	2	3	3	3	-	-	-	-	-	-	-
C303.3	2	2	3	3	3	-	-	-	-	-	-	2
C303.4	2	2	3	3	3	-	-	-	-	-	-	-
C303.5	2	2	3	2	2	-	-	-	-	-	-	-
Average	2.2	2.2	3.0	2.6	2.6	-	-	-	-	-	-	2

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C303.1	3	-	-
C303.2	2	3	-
C303.3	2	3	3
C303.4	2	3	3
C303.5	2	2	2
Average	2.2	2.75	2.66

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Object Oriented Analysis and Design**

**Year & Sem: III-1**

**Course Coordinator Name: Dr K. Mahesh**

**Regulation: R20**

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

**Course Code: C304**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C304.1	Apply UML concepts to model software systems.
C304.2	Analyze requirements to construct structural diagrams.
C304.3	Examine system behavior using behavioral diagrams.
C304.4	Evaluate and design advanced behavioral and architectural models.
C304.5	Create complete UML representations for real-world applications.

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C304.1	3	2	2	2	-	-	-	-	-	-	-	-
C304.2	3	2	2	2	3	-	-	-	-	-	-	3
C304.3	2	2	3	3	3	-	-	-	-	-	-	-
C304.4	2	2	3	3	3	-	-	-	-	-	-	-
C304.5	2	2	3	3	3	-	-	-	-	-	-	-
<b>Average</b>	<b>2.4</b>	<b>2.0</b>	<b>2.6</b>	<b>2.6</b>	<b>3.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.0</b>

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

**CO-PO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C304.1	3	-	-
C304.2	3	-	2
C304.3	-	3	-
C304.4	-	3	-
C304.5	-	3	3
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.5</b>

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Natural Language Processing**

**Year & Sem: III-1**

**Course Coordinator Name: K. Nagamani**

**Regulation: R20**

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

**Course Code: C305**

**Course Outcomes:**

CO#	Course Outcome
C305.1	Summarize the NLP structure documents
C305.2	Use of proper experimental methodology for evaluating NLP systems
C305.3	Construct statistical models over strings and trees, and estimate parameters using supervised and unsupervised training methods.
C305.4	Implement NLP algorithms
C305.5	Design different language modelling Techniques.

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C305.1	3	2	2	2	2	-	-	-	-	-	-	2
C305.2	3	3	3	2	3	-	-	-	-	-	-	2
C305.3	2	3	3	2	3	-	-	-	-	-	-	2
C305.4	3	3	3	2	3	-	-	-	-	-	-	2
C305.5	2	2	3	2	3	-	-	-	-	-	-	3
Average	2.6	2.6	2.8	2.0	2.8	-	-	-	-	-	-	2.2

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

**CO-PO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C305.1	3	2	2
C305.2	3	3	2
C305.3	2	3	2
C305.4	2	3	2
C305.5	2	3	3
Average	2.4	2.8	2.2

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Data Mining Lab**

**Year & Sem: III-1**

**Course Coordinator Name: M. Balaji**

**Regulation: R20**

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

**Course Code: C306**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C306.1	Experiment on data mining tools.
C306.2	Apply data mining algorithms.
C306.3	Analyze and pre-process data.
C306.4	Implement Decision Trees for cross-validation.
C306.5	Develop data mining models.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C306.1	3	2	3	3	3	-	-	-	2	2	-	3
C306.2	3	3	3	3	3	-	-	-	2	3	-	3
C306.3	2	3	3	3	3	-	-	-	-	2	-	-
C306.4	2	2	3	3	3	-	-	2	2	3	-	-
C306.5	2	2	3	3	3	-	-	2	-	3	-	3
Average	2.4	2.4	3.0	3.0	3.0	-	-	2.0	2.0	2.6	-	3.0

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C306.1	2	3	-
C306.2	3	3	2
C306.3	3	2	-
C306.4	2	3	-
C306.5	2	3	3
Average	2.4	2.8	2.5

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

  
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**CO-PO-PSO MAPPING**

**Course Name:** Computer Networks and Web Technologies Lab      **Regulation:** R20  
**Year & Sem:** III-1      **Branch:** CSE (AI&ML)  
**Course Coordinator Name:** V Ravinder Naik      **Course Code:** C307

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C307.1	Implement data link layer protocols.
C307.2	Illustrate routing and congestion control techniques in a network.
C307.3	Design and develop web applications.
C307.4	Develop server-side scripting.
C307.5	Apply web development frameworks and tools.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C307.1	2	2	3	3	3	-	-	-	2	-	-	-
C307.2	3	2	3	3	3	-	-	-	2	2	-	-
C307.3	2	2	3	3	3	-	-	2	3	-	-	2
C307.4	-	-	3	3	3	-	-	2	3	-	-	2
C307.5	3	3	3	3	3	-	-	-	2	2	-	2
<b>Average</b>	<b>2.5</b>	<b>2.25</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	-	-	<b>2.0</b>	<b>2.4</b>	<b>2.2</b>	-	<b>2.0</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C307.1	-	3	-
C307.2	3	3	-
C307.3	-	3	3
C307.4	-	3	-
C307.5	3	3	-
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>

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



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**CO-PO-PSO MAPPING**

**Course Name: R Programming Lab**

**Year & Sem: III-1**

**Course Coordinator Name: SK. Sharif**

**Regulation: R20**

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

**Course Code: C308**

**Course Outcomes:**

CO#	Course Outcome
C308.1	Implement basic concepts of R programming.
C308.2	Implement the concepts of R fundamentals.
C308.3	Apply descriptive statistics on different data sets.
C308.4	Make Use of R Graphics and R Script.
C308.5	Create Data types, Transformations and Relational Database Using SQL.

**CO-PO MAPPING:**

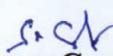
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C308.1	3	2	3	3	3	-	-	-	-	-	-	2
C308.2	3	3	2	2	2	-	-	-	-	-	-	2
C308.3	3	2	3	2	2	-	-	-	-	-	-	2
C308.4	3	2	3	2	2	-	-	-	-	-	-	2
C308.5	3	2	3	2	2	-	-	-	-	-	-	2
Average	3	2.2	2.8	2.2	2.2	-	-	-	-	-	-	2

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C308.1	3	2	3
C308.2	3	3	2
C308.3	3	2	3
C308.4	3	3	3
C308.5	2	3	3
Average	2.8	2.6	2.8

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Artificial Intelligence**

**Year & Sem: III-II**

**Course Coordinator Name: B Prashanth**

**Regulation: R20**

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

**Course Code: C309**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C309.1	Formulate an efficient problem space for a problem expressed in natural language.
C309.2	Select a search algorithm for a problem and estimate its time and space complexities.
C309.3	Representing knowledge using the appropriate technique for a given problem.
C309.4	Apply AI techniques to solve problems of game playing and machine learning.
C309.5	Act on uncertain problem solving.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C309.1	3	3	2	2	2	-	-	-	-	-	-	2
C309.2	3	3	2	3	2	-	-	-	-	-	-	2
C309.3	3	2	2	2	3	-	-	-	-	-	-	2
C309.4	3	3	3	3	2	-	-	-	-	-	-	2
C309.5	3	2	3	3	3	-	-	-	-	-	-	2
Average	3	2.6	2.4	2.6	2.4	-	-	-	-	-	-	2

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C309.1	3	3	3
C309.2	3	2	3
C309.3	2	3	2
C309.4	3	2	2
C309.5	3	3	3
Average	2.8	2.6	2.6

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

  
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**CO-PO-PSO MAPPING**

**Course Name: Compiler Design**

**Year & Sem: III-II**

**Course Coordinator Name: G. Parvathi Devi**

**Regulation: R20**

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

**Course Code: C310**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C310.1	Compute tokens and regular expressions for lexical analysis.
C310.2	Implement top-down and bottom-up parsers.
C310.3	Construct Intermediate code for Procedures.
C310.4	Optimize the code generation.
C310.5	Analyze the data flow.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C310.1	2	2	3	3	3	-	-	-	-	-	-	-
C310.2	2	2	3	3	3	-	-	-	-	-	-	-
C310.3	2	2	3	3	3	-	-	-	-	-	-	-
C310.4	2	2	3	3	3	-	-	-	-	-	-	-
C310.5	2	3	2	2	2	-	-	-	-	-	-	-
Average	2.0	2.2	2.8	2.8	2.8	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C310.1	2	2	-
C310.2	2	2	-
C310.3	2	2	-
C310.4	2	-	-
C310.5	2	-	-
Average	2.0	2.0	-

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name:** Software Engineering  
**Year & Sem:** III-II  
**Course Coordinator Name:** U Saritha

**Regulation:** R20  
**Branch:** CSE (AI&ML)  
**Course Code:** C311

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C311.1	Compose end-user requirements into the system.
C311.2	Identify and apply the process model based on software requirements.
C311.3	Build the design of a systematic models.
C311.4	Construct testing strategies and generate a report.
C311.5	Quantify the metrics for process and products.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C311.1	3	3	3	2	2	-	-	-	-	-	-	-
C311.2	2	3	3	2	2	-	-	-	-	-	-	2
C311.3	2	2	3	3	3	-	-	-	-	-	-	2
C311.4	2	2	3	3	3	-	-	-	-	-	-	-
C311.5	2	2	3	3	3	-	-	-	-	-	-	-
Average	2.2	2.4	3	2.6	2.6	-	-	-	-	-	-	2.0

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

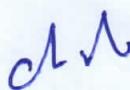
**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C311.1	3	3	-
C311.2	3	3	-
C311.3	2	3	3
C311.4	2	3	3
C311.5	2	3	2
Average	2.4	3.0	2.66

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Software Testing Methodologies**

**Year & Sem: III-II**

**Course Coordinator Name: B. Swaroopa Rani**

**Regulation: R20**

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

**Course Code: C312**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C312.1	Compare and contrast the various testing strategies.
C312.2	Demonstrate data flow and domain testing strategies.
C312.3	Describe anomalies and build decision table, kv charts.
C312.4	Analyze the graph-based testing metrics with its applications.
C312.5	Implement test cases using WinRunner tool.

**CO-PO MAPPING:**

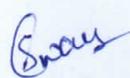
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C312.1	3	3	2	2	-	-	-	-	-	-	-	-
C312.2	3	3	3	3	3	-	-	-	-	-	-	-
C312.3	3	2	2	2	2	-	-	-	-	-	-	-
C312.4	2	3	2	3	3	-	-	-	-	-	-	-
C312.5	-	-	3	3	3	-	-	-	-	-	-	2
<b>Average</b>	<b>2.75</b>	<b>2.75</b>	<b>2.4</b>	<b>2.6</b>	<b>2.75</b>	-	-	-	-	-	-	<b>2.0</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C312.1	3	-	-
C312.2	-	3	2
C312.3	2	3	-
C312.4	3	2	-
C312.5	-	3	-
<b>Average</b>	<b>2.66</b>	<b>2.75</b>	<b>2.0</b>

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

  
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**Module Coordinator**

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name:** Introduction to Data Science

**Year & Sem:** III-II

**Course Coordinator Name:** Dr G. Vinoda Reddy

**Regulation:** R20

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

**Course Code:** C313

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C313.1	Apply data science principles to perform exploratory data analysis.
C313.2	Manipulate and process arrays and datasets using NumPy and pandas.
C313.3	Load, store, and manage structured and unstructured data files.
C313.4	Combine, reshape, and transform datasets for meaningful insights.
C313.5	Visualize data effectively using matplotlib and pandas plotting tools.

**CO-PO Mapping:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C313.1	3	2	2	2	2	-	-	-	-	-	-	1
C313.2	3	3	3	2	3	-	-	-	-	-	-	2
C313.3	2	3	3	2	3	-	-	-	-	-	-	2
C313.4	3	3	3	2	3	-	-	-	-	-	-	2
C313.5	2	2	3	2	3	-	-	-	-	-	-	3
Average	2.6	2.6	2.8	2.0	2.8	-	-	-	-	-	-	2.2

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

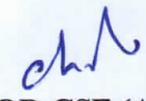
**CO-PO-PSO MAPPING:**

	PSO1	PSO2	PSO3
C313.1	2	2	2
C313.2	2	3	2
C313.3	2	3	2
C313.4	3	3	3
C313.5	3	3	3
<b>Average</b>	2.4	2.8	2.4

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

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Artificial Intelligence Lab**

**Year & Sem: III-II**

**Course Coordinator Name: B. Prashanth**

**Regulation: R20**

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

**Course Code: 314**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C314.1	Implement fundamental AI search algorithms using LISP/PROLOG.
C314.2	Apply adversarial search techniques and game playing methODs using LISP/PROLOG.
C314.3	Solve constraint-based problem such as monkey-banana and 8-puzzle problem LISP/PROLOG.
C314.4	Design and Develop an Expert System with forward chaining using JESS/PROLOG.
C314.5	Build an Expert System with backward chaining using JESS/PROLOG.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C314.1	3	3	2	2	2	-	-	-	-	-	-	3
C314.2	3	3	2	3	2	-	-	-	-	-	-	3
C314.3	3	3	3	3	2	-	-	-	-	-	-	3
C314.4	3	2	3	2	3	-	-	-	-	-	-	3
C314.5	3	2	3	2	3	-	-	-	-	-	-	3
<b>Average</b>	<b>3</b>	<b>2.6</b>	<b>2.6</b>	<b>2.4</b>	<b>2.4</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C314.1	3	3	3
C314.2	3	3	2
C314.3	3	3	3
C314.4	3	3	3
C314.5	3	3	3
<b>Average</b>	<b>3</b>	<b>3</b>	<b>2.8</b>

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



**Course Coordinator**



**Module Coordinator**



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## Department of CSE [Artificial Intelligence & Machine Learning]

### CO-PO-PSO MAPPING

Course Name: Advanced Communication Skills Lab

Year & Sem: III-II

Course Coordinator Name: K. Ranjith Kumar

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C316

### Course Outcomes:

CO#	Course Outcome
C315.1	Interpret the vocabulary to improve the fluency in English.
C315.2	Illustrate the ideas to use of communication skills.
C315.3	Develop proficiency in academic reading and writing.
C315.4	Apply innovative presentation styles.
C315.5	Use advanced communication technologies.

### CO-PO MAPPING:

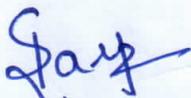
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C315.1	2	-	-	-	-	-	-	-	2	3	-	-
C315.2	2	-	-	-	-	-	-	2	3	3	-	-
C315.3	2	-	-	-	-	-	-	-	3	3	-	3
C315.4	2	-	-	-	-	-	-	2	3	3	-	3
C315.5	2	-	-	-	-	-	-	-	3	3	-	3
<b>Average</b>	<b>2.0</b>	-	-	-	-	-	-	<b>2.0</b>	<b>2.8</b>	<b>3.0</b>	-	<b>3.0</b>

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

### CO-PSO MAPPING:

	PSO 1	PSO 2	PSO 3
C315.1	2	-	-
C315.2	2	-	2
C315.3	-	-	-
C315.4	3	-	-
C315.5	3	-	2
<b>Average</b>	<b>2.5</b>	-	<b>2.0</b>

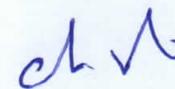
Note: 1-Low, 2-Moderate, 3-High



Course Coordinator



Module Coordinator



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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Software Testing Methodologies Lab**

**Year & Sem: III-II**

**Course Coordinator Name: B. Swaroopa Rani**

**Regulation: R20**

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

**Course Code: C316**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C316.1	Identify recording in context sensitive mode and analog mode.
C316.2	Demonstrate the GUI, Bitmap and Database checkpoints.
C316.3	Analyze Data driven test through flat files and excel test.
C316.4	Recognize Batch testing without and with parameter passing.
C316.5	Develop the test case for calculator application.

**CO-PO MAPPING:**

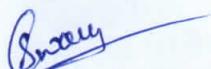
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C316.1	3	3	2	2	3	-	-	-	-	-	-	-
C316.2	2	2	3	3	3	-	-	2	2	3	-	-
C316.3	2	3	2	2	3	-	-	-	2	-	-	-
C316.4	3	3	2	2	3	-	-	-	-	-	3	3
C316.5	-	-	3	3	3	-	-	2	3	3	3	3
<b>Average</b>	<b>2.5</b>	<b>2.75</b>	<b>2.4</b>	<b>2.4</b>	<b>3.0</b>	-	-	<b>2.0</b>	<b>2.33</b>	<b>3.0</b>	<b>3</b>	<b>3</b>

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

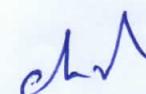
**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C316.1	3	-	-
C316.2	-	3	2
C316.3	3	-	-
C316.4	3	-	-
C316.5	-	3	2
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>

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

  
Course Coordinator

  
Module Coordinator

  
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## Department of CSE [Artificial Intelligence & Machine Learning]

### CO-PO-PSO MAPPING

**Course Name:** Business Economics And Financial Analysis

**Regulation:** R20

**Year & Sem:** IV-I

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

**Course Coordinator Name:** D Kanaka Durga

**Course Code:** C401

### **Course Outcomes:**

CO#	Course Outcome
C401.1	Describe the various forms of Business and its impact on economy.
C401.2	Comprehend the demand and supply.
C401.3	Explore the usage of marketing and pricing of a product.
C401.4	Analyze financial statements and reports.
C401.5	Use financial ratios and metrics to evaluate business performance.

### **CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C401.1	2	-	-	-	-	3	3	-	-	-	3	-
C401.2	2	-	-	-	-	3	3	-	-	2	3	-
C401.3	2	-	-	-	-	3	3	-	3	2	3	2
C401.4	2	-	-	-	-	3	3	2	2	-	3	-
C401.5	2	-	-	-	-	3	3	-	2	-	3	2
<b>Average</b>	<b>2.0</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>	<b>2.33</b>	<b>2.0</b>	<b>3.0</b>	<b>2.0</b>

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

### **CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C401.1	2	-	-
C401.2	3	-	-
C401.3	2	-	2
C401.4	3	-	-
C401.5	3	-	2
<b>Average</b>	<b>2.6</b>	<b>-</b>	<b>2.0</b>

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

  
Course Coordinator

  
Module Coordinator

  
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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Machine Learning**

**Year & Sem: IV-I**

**Course Coordinator Name: B Swaroopa Rani**

**Regulation: R20**

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

**Course Code: C402**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C402.1	Describe the concept of computational intelligence.
C402.2	Demonstrate artificial neural networks and their usage.
C402.3	Implement machine learning algorithms.
C402.4	Analyze instant based learning algorithms by set rules.
C402.5	Evaluate Analytical and Inductive learning algorithms.

**CO-PO MAPPING:**

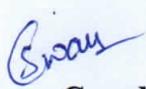
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C402.1	3	2	2	2	2	-	-	-	-	-	-	-
C402.2	2	2	3	3	3	-	-	-	-	-	-	3
C402.3	2	2	3	3	3	-	-	-	-	-	-	3
C402.4	2	3	2	3	2	-	-	-	-	-	-	-
C402.5	2	2	3	3	2	-	-	-	-	-	-	-
<b>Average</b>	<b>2.2</b>	<b>2.2</b>	<b>2.6</b>	<b>2.8</b>	<b>2.4</b>	-	-	-	-	-	-	<b>3.0</b>

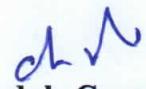
Note: 1-Low, 2-Moderate, 3-High

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C402.1	3	-	-
C402.2	3	3	3
C402.3	2	3	3
C402.4	2	-	-
C402.5	2	3	-
<b>Average</b>	<b>2.4</b>	<b>3.0</b>	<b>3.0</b>

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

  
**Course Coordinator**

  
**Module Coordinator**

  
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## Department of CSE [Artificial Intelligence & Machine Learning]

### CO-PO-PSO MAPPING

**Course Name:** Cloud Computing

**Year & Sem:** IV-I

**Course Coordinator Name:** G Parvathi Devi

**Regulation:** R20

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

**Course Code:** C403

### **Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C403.1	Describe the cloud computing paradigms.
C403.2	Explore various service delivery models of a cloud computing architecture.
C403.3	Demonstrate the cloud infrastructure management and migration tools.
C403.4	Apply the cloud services.
C403.5	Analyze different cloud service providers.

### **CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C403.1	3	3	-	-	-	-	-	-	-	-	-	-
C403.2	3	3	3	3	3	-	-	-	-	-	-	2
C403.3	3	3	3	3	3	-	-	-	-	-	-	2
C403.4	3	3	3	3	3	-	-	-	-	-	-	-
C403.5	3	3	3	3	3	-	-	-	-	-	-	-
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	-	-	-	-	-	-	<b>2</b>

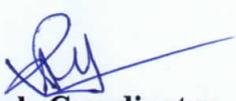
Note: 1-Low, 2-Moderate, 3-High

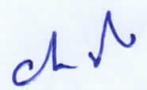
### **CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C403.1	3	-	-
C403.2	3	-	-
C403.3	-	3	2
C403.4	3	-	-
C403.5	3	-	-
<b>Average</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>

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

  
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Module Coordinator

  
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## Department of CSE [Artificial Intelligence & Machine Learning]

### CO-PO-PSO MAPPING

Course Name: Deep Learning

Year & Sem: IV-I

Course Coordinator Name: M Ravindran

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C404

### Course Outcomes:

At the end of the course student will be able to

CO#	Course Outcome
C404.1	Understand the concepts of Neural Networks.
C404.2	Select the Learning Networks in modeling real-world systems.
C404.3	Apply optimization strategies for large scale applications.
C404.4	Use an efficient algorithm for Deep Models.
C404.5	Implement Deep learning models in various domains.

### CO-PO MAPPING:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C404.1	3	2	2	2	2	-	-	-	-	-	-	2
C404.2	3	3	3	3	3	-	-	-	-	-	-	2
C404.3	3	3	3	3	3	-	-	-	-	-	-	3
C404.4	3	3	3	3	3	-	-	-	-	-	-	3
C404.5	3	3	3	2	3	-	-	-	-	-	-	3
<b>Average</b>	3	2.8	2.8	2.6	2.8	-	-	-	-	-	-	2.6

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

### CO-PSO MAPPING:

	PSO 1	PSO 2	PSO 3
C404.1	3	2	3
C404.2	3	3	2
C404.3	3	3	2
C404.4	3	3	2
C404.5	3	3	3
<b>Average</b>	3	2.8	2.4

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



Course Coordinator



Module Coordinator



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**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Information Retrieval Systems**

**Year & Sem: IV-I**

**Course Coordinator Name: A Ramesh**

**Regulation: R20**

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

**Course Code: C405**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C405.1	Describe Information Retrieval systems principles for large collections of data.
C405.2	Develop data models using statistical approaches.
C405.3	Implement different automatic document clustering algorithms.
C405.4	Design the Information Retrieval System for web and text searching.
C405.5	Apply visualization tools for multimedia information retrieval.

**CO-PO MAPPING:**

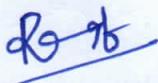
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C405.1	3	2	2	-	-	-	-	-	-	-	-	-
C405.2	2	2	3	3	3	-	-	-	-	-	-	-
C405.3	2	2	3	3	3	-	-	-	-	-	-	-
C405.4	2	2	3	3	3	-	-	-	-	-	-	-
C405.5	3	2	3	-	3	-	-	-	-	-	-	-
<b>Average</b>	<b>2.4</b>	<b>2.0</b>	<b>2.8</b>	<b>3.0</b>	<b>3.0</b>	-	-	-	-	-	-	-

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C405.1	3	-	-
C405.2	-	3	-
C405.3	-	3	-
C405.4	-	3	-
C405.5	-	2	-
<b>Average</b>	<b>3.0</b>	<b>2.75</b>	-

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

  
**Course Coordinator**

  
**Module 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 [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Machine Learning Lab**

**Year & Sem: IV – I**

**Course Coordinator Name: B Swaroopa Rani**

**Regulation: R20**

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

**Course Code: C406**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C406.1	Describe the mathematical and statistical prospectives of Machine learning algorithms through python programming.
C406.2	Implement Machine learning algorithms.
C406.3	Use machine learning libraries and frameworks.
C406.4	Apply classification techniques for real world problems.
C406.5	Analyze and interpret machine learning models.

**CO-PO MAPPING:**

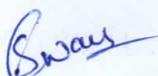
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C406.1	3	3	2	-	-	-	-	-	2	-	-	-
C406.2	2	2	3	3	3	-	-	-	3	-	-	3
C406.3	3	3	3	3	3	-	-	-	2	-	-	-
C406.4	3	3	3	3	3	-	-	2	3	2	-	3
C406.5	2	3	3	3	3	-	-	2	3	3	-	3
<b>Average</b>	<b>2.6</b>	<b>2.8</b>	<b>2.8</b>	<b>3.0</b>	<b>3.0</b>	-	-	<b>2.0</b>	<b>2.6</b>	<b>2.5</b>	-	<b>3.0</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C406.1	3	-	-
C406.2	-	3	3
C406.3	2	-	-
C406.4	3	3	3
C406.5	2	3	-
<b>Average</b>	<b>2.5</b>	<b>3.0</b>	<b>3.0</b>

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

  
**Course Coordinator**

  
**Module Coordinator**

  
**HOD CSE (AI&ML)**

Head  
Department of CSE (AI & ML)  
CMR Technical Campus

## Department of CSE [Artificial Intelligence & Machine Learning]

### CO-PO-PSO MAPPING

**Course Name: Industry Oriented Mini Project**

**Year & Sem: IV –I**

**Course Coordinator Name: Dr V.Malsoru**

**Regulation: R20**

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

**Course Code: C407**

### Course Outcomes:

At the end of the course student will be able to	
CO#	Course Outcome
C407.1	Identify and explain the problem clearly, generate creative ideas to solve it, and analyze the problem critically to develop effective solutions.
C407.2	Apply appropriate methods, tools, and technologies to design and implement practical and functional solutions.
C407.3	Analyze project results, interpret findings, and evaluate outcomes to suggest evidence-based improvements.
C407.4	Evaluate contributions to achieve project goals through project management principles.
C407.5	Demonstrate professional communication and ethical behavior through proper project documentation and presentation.

### CO-PO MAPPING:

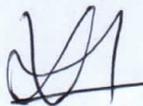
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C407.1	3	3	2	2	2	2	2	-	-	2	-	3
C407.2	3	3	3	3	3	-	-	-	-	-	-	2
C407.3	3	3	2	3	3	-	-	-	-	-	2	2
C407.4	-	2	2	-	2	-	-	2	2	3	3	2
C407.5	-	-	-	-	2	2	2	2	2	3	2	3
<b>Average</b>	<b>3.0</b>	<b>2.75</b>	<b>2.25</b>	<b>2.66</b>	<b>2.4</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>2.66</b>	<b>2.33</b>	<b>2.4</b>

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

### CO-PSO MAPPING:

	PSO 1	PSO 2	PSO 3
C407.1	3	2	-
C407.2	3	3	-
C407.3	3	3	3
C407.4	-	3	3
C407.5	-	2	3
<b>Average</b>	<b>3.0</b>	<b>2.6</b>	<b>3.0</b>

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



**Course Coordinator**



**Module Coordinator**



**HOD CSE (AI&ML)**

Head

Department of CSE (AI & ML)

CMR Technical Campus

**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Seminar**

**Year & Sem: IV-I**

**Course Coordinator Name: V Malsoru**

**Regulation: R20**

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

**Course Code: C408**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C408.1	Understand and explain the technical topic by identifying key concepts, objectives, and relevance to engineering problems.
C408.2	Apply appropriate research methodology and technical tools to analyze the seminar topic effectively.
C408.3	Explain clear and structured presentations, supported by effective visuals and proper documentation.
C408.4	Demonstrate innovation and critical thinking while presenting advanced ideas And engaging in lifelong learning.
C408.5	Defend the seminar content confidently during viva-voce and submit a well-organized technical report.

**CO-PO MAPPING:**

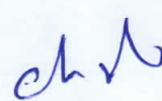
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C408.1	3	3	2	2	-	2	2	-	-	2	-	-
C408.2	3	3	3	3	2	-	-	-	-	-	-	2
C408.3	-	-	-	-	-	-	-	-	3	3	-	-
C408.4	2	3	3	2	2	-	-	3	-	-	-	3
C408.5	3	2	2	-	2	-	-	-	-	3	2	2
<b>Average</b>	<b>2.75</b>	<b>2.75</b>	<b>2.5</b>	<b>2.33</b>	<b>2.0</b>	<b>2.0</b>	<b>2.0</b>	<b>3.0</b>	<b>3.0</b>	<b>2.66</b>	<b>2.0</b>	<b>2.33</b>

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C408.1	3	-	2
C408.2	3	-	2
C408.3	2	-	-
C408.4	2	-	3
C408.5	3	-	2
<b>Average</b>	<b>2.6</b>	<b>-</b>	<b>2.0</b>

  
**Course Coordinator**

  
**Module Coordinator**

  
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CMR Technical Campus

**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

Course Name: Project Stage – I

Year & Sem: IV- I

Course Coordinator Name: V Malsoru

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C409

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C409.1	Develop a clear and concise problem statement and define achievable project objectives that are well-aligned with the identified problem.
C409.2	Review and analyze relevant literature to identify research gaps, and develop an effective project design rounded in engineering principles.
C409.3	Demonstrate effectively research findings through a structured presentation and a well-organized project report.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C409.1	2	3	2	1	-	2	2	1	2	2	2	1
C409.2	3	3	3	3	2	-	-	1	2	1	1	2
C409.3	2	2	1	1	1	-	-	1	3	3	2	2
<b>Average</b>	<b>2.33</b>	<b>2.66</b>	<b>2.0</b>	<b>1.66</b>	<b>1.5</b>	<b>2.0</b>	<b>2.0</b>	<b>1.0</b>	<b>2.33</b>	<b>2.0</b>	<b>1.66</b>	<b>1.66</b>

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C409.1	3	2	2
C409.2	3	2	2
C409.3	2	3	3
<b>Average</b>	<b>2.66</b>	<b>2.33</b>	<b>2.33</b>

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

  
Course Coordinator

  
Module Coordinator

  
HOD CSE (AI&ML)  
Department of CSE (AI & ML)  
CMR Technical Campus  
Kandlakoya (V), Medchal Road,  
Hyderabad, Telangana - 501401.

**Department of CSE [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Organizational Behaviour**

**Year & Sem: IV-II**

**Course Coordinator Name: Dr Mallika Rao**

**Regulation: R20**

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

**Course Code: C410**

**Course Outcomes:**

At the end of the course student will be able to	
CO#	Course Outcome
C410.1	Describe the environmental and organizational behaviour.
C410.2	Develop the personality and process attributes.
C410.3	Apply decision making at individual and team levels.
C410.4	Explore power and politics.
C410.5	Analyze the performance and work practices.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C410.1	3	2	2	2	-	3	3	-	-	-	-	2
C410.2	2	2	3	2	-	3	3	-	-	-	-	2
C410.3	2	2	2	3	-	3	3	2	3	2	3	-
C410.4	2	2	3	2	-	3	3	2	3	2	-	-
C410.5	2	3	2	2	-	3	3	-	2	2	2	2
<b>Average</b>	<b>2.2</b>	<b>2.2</b>	<b>2.4</b>	<b>2.2</b>	<b>-</b>	<b>3.0</b>	<b>3.0</b>	<b>2.0</b>	<b>2.66</b>	<b>2.0</b>	<b>2.5</b>	<b>2</b>

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

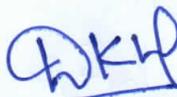
**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C410.1	3	-	-
C410.2	-	-	-
C410.3	2	-	-
C410.4	-	-	3
C410.5	-	-	-
<b>Average</b>	<b>2.5</b>	<b>-</b>	<b>3.0</b>

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



**Course Coordinator**



**Module 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 [Artificial Intelligence & Machine Learning]

### CO-PO-PSO MAPPING

Course Name: Cyber Forensics

Year & Sem: IV-II

Course Coordinator Name: R Lavanya

Regulation: R20

Branch: CSE (AI&ML)

Course Code: C411

### Course Outcomes:

At the end of the course student will be able to

CO#	Course Outcome
C411.1	Describe the crime types and incident response procedures.
C411.2	Understand the usage of computers in forensic laboratories.
C411.3	Explore the data analysis and visualization techniques.
C411.4	Use various forensic tools for a wide variety of investigations.
C411.5	Design principles of data management methods.

### CO-PO MAPPING:

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C411.1	3	2	2	2	2	-	-	-	-	-	-	3
C411.2	2	2	2	2	2	-	-	-	-	-	-	3
C411.3	2	3	3	2	3	-	-	-	-	-	-	3
C411.4	2	2	3	3	2	-	-	-	-	-	-	3
C411.5	2	2	3	3	2	-	-	-	-	-	-	3
Average	2.2	2.2	2.6	2.4	2.2	-	-	-	-	-	-	3

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

### CO-PSO MAPPING:

	PSO 1	PSO 2	PSO 3
C411.1	3	3	2
C411.2	3	2	3
C411.3	2	3	3
C411.4	3	3	2
C411.5	3	3	2
<b>Average</b>	<b>2.8</b>	<b>2.8</b>	<b>2.4</b>

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

  
Course Coordinator

  
Module 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 [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Scripting Languages**

**Year & Sem: IV-II**

**Course Coordinator Name: A Ramesh**

**Regulation: R20**

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

**Course Code: C412**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C412.1	Comprehend the SOAP architecture and web services.
C412.2	Understand the Ruby scripting language.
C412.3	Apply the basic Perl programming language.
C412.4	Implement the advanced programming in PERL.
C412.5	Apply TCL programming.

**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C412.1	3	2	2	2	3	-	-	-	-	-	-	2
C412.2	3	3	3	2	3	-	-	-	-	-	-	2
C412.3	3	2	2	3	3	-	-	-	-	-	-	3
C412.4	3	3	3	2	3	-	-	-	-	-	-	2
C412.5	3	3	3	2	3	-	-	-	-	-	-	2
<b>Average</b>	3	2.6	2.6	2.2	3	-	-	-	-	-	-	2.2

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

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C412.1	3	2	2
C412.2	3	3	2
C412.3	3	3	3
C412.4	3	1	2
C412.5	3	1	2
<b>Average</b>	3	2	2.2

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

  
Course Coordinator

  
Module 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 [Artificial Intelligence & Machine Learning]**

**CO-PO-PSO MAPPING**

**Course Name: Project Stage-II**

**Year & Sem: IV-II**

**Course Coordinator Name: Dr V.Malsoru**

**Regulation: R20**

**Branch: CSE (AIML)**

**Course Code: C413**

**Course Outcomes:**

At the end of the course student will be able to

CO#	Course Outcome
C413.1	Demonstrate progress in implementing the project by effectively selecting and applying appropriate engineering tools, techniques, and practices in line with project requirements.
C413.2	Apply systematic testing strategies and validation methods to identify issues and improve the functionality and performance of the project.
C413.3	Develop original ideas or innovative approaches in the design or implementation of the project.
C413.4	Describe the proposed system, interpret output/results and connect to defined objectives.
C413.5	Compose a well-structured project report that communicates technical content, results, and conclusions effectively.
C413.6	Analyze the social and environmental impacts through professional communication, collaboration, and ethical conduct.

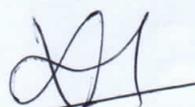
**CO-PO MAPPING:**

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
C413.1	3	2	3	2	3	-	-	-	2	2	2	2
C413.2	2	3	2	3	2	-	-	-	2	-	2	2
C413.3	2	2	3	3	3	-	-	3	2	2	3	3
C413.4	2	2	2	2	2	-	-	-	2	2	2	2
C413.5	-	-	2	-	-	-	-	-	2	3	2	2
C413.6	-	1	-	-	-	3	3	3	3	3	2	2
<b>Average</b>	<b>2.25</b>	<b>2.0</b>	<b>2.4</b>	<b>2.5</b>	<b>2.5</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>	<b>2.16</b>	<b>2.4</b>	<b>2.16</b>	<b>2.16</b>

**CO-PSO MAPPING:**

	PSO 1	PSO 2	PSO 3
C413.1	3	2	2
C413.2	3	2	2
C413.3	3	2	3
C413.4	2	3	2
C413.5	2	3	2
C413.6	2	3	3
<b>Average</b>	<b>2.5</b>	<b>2.5</b>	<b>2.33</b>

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

  
**Course Coordinator**

  
**Module Coordinator**

  
**HOD CSE (AI&ML)**  
Department of CSE (AI & ML)