Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY, BENGALURU-56

(An Autonomous Institution, Affiliated to VTU, Belagavi, Approved by AICTE, New Delhi)

DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS(MCA)

The following documents enclosed are verified and approved.

5/4/22

HOD-MCA

Dr. Chandrakanth G Pujari

Dr. Chandrakanth G. Pujari, MCA, MTech, Ph.D
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Dr. AMBEDKAR INSTITUTE OF TECHNOLOGY (NAAC with 'A' Grade)

MASTER OF COMPUTER APPLICATIONS (NBA Accredited)

LESSON PLANNER

ODD SEMESTER – 2021-22

NAME OF THE FACULTY: Shobha Rani. B. R | **SEMESTER:** III

SUBJECT TITLE: Machine Learning Using Python | **SUBJECT CODE:** 20MCA31

NO. OF CREDITS: 4 | **NO. OF HOURS:** 52

PLANNED			ACTUAL					
No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
1.	1	Introduction to Machine Learning	1	04-10-2021	Introduction to Machine Learning	58		Blended mode
2.	1	Types of Machine learning	1	05-10-2021	Types of Machine learning	61		
3.	1	Applications	1	07-10-2021	Applications	61		
4.	1	Machine Learning Process	1	11-10-2021	Machine Learning Process	61		
5.	1	Well posed learning problems	1	12-10-2021	Well posed learning problems	60		
6.	1	Designing a Learning system	1	13-10-2021	Designing a Learning system	60		
7.	1	Perspective and Issues in Machine Learning	1	21-10-2021	Perspective and Issues in Machine Learning	60		
8.	1	Concept Learning	1	22-10-2021	Concept Learning	61		
9.	1	Find S Algorithm	1	25-10-2021	Find S Algorithm	60		
10.	1	Candidate Elimination Algorithm	1	26-10-2021	Candidate Elimination Algorithm	61		

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No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
11.	2	**Classification**-Introduction	2	27-10-2021	Introduction - Classificatio	61		
12.	2	Introduction to Bayes Theorem and Concept learning	2	28-10-2021	Bayes Theorem & concept learning	61		
13.	2	Naive Bayes Classifier	2	30-10-2021	Derivation - NB classifier	58		
14.	2	Naive Bayes Classifier	2	02-11-2021	Examples of NB Classifier	59		
15.	2	Applications of Naïve Bayes Classifier	2	02-11-2021	Applications	60		
16.	2	Decision Tree- ID3 classifier	2	04-11-2021	Decision Tree - Impurities	61		
17.	2	Decision Tree- ID3 classifier	2	08-11-2021	Build DT - Examples.	61		
18.	2	Overfitting and Under fitting	2	09-11-2021	Issues- overfitting & underfitting	60		
19.	2	Ensemble Methods-Bagging & Boosting	2	10-11-2021	Bagging & Boosting	60		
20.	2	Random Forest Model	2	11-11-2021	Random Forest Algo.	59		
21.	2	Model Evaluation	2	15-11-2021	Confusion matrix - ME	59		
22.	3	**Clustering**-Different types of the clustering techniques	3	16-11-2021	Clustering types - Techniques	59		
23.	3	Applications	3	17-11-2021	Applications	58		
24.	3	K-Means Clustering Algorithm	3	18-11-2021	k-means Algorithm.	57		

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No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
25.	3	K-Means Clustering Algorithm_ Example	3	23-11-2021	Apply k-means – Ex.	59		
26.	3	Hierarchical Clustering algorithm	3	24-11-2021	Hierarchical clustering	58		
27.	3	Hierarchical Clustering algorithm + example	3	25-11-2021	Agglomerative clustering – Ex.	56		
28.	3	Reinforcement Learning- Introduction,	3	29-11-2021	Reinforcement learning – terms, features	55		
29.	3	Markov's Decision Process,	3	30-11-2021	Markovs Decision process	54		
30.	3	Q-Learning	3	01-12-2021	Q-Learning Algorithm	55		
31.	3	Q-Learning	3	02-12-2021	Example.	54		
32.	4	**Regression Learning**	4	06-12-2021	Regression Analysis	58		
33.	4	Training a model-Linear Regression	4	07-12-2021	Linear Regression I Derivation	59		
34.	4	Linear Regression Algorithm + Example	4	08-12-2021	Example – LR.	59		
35.	4	Linear Regression Algorithm + Example	4	09.12.21	Apply LR & analyse	58		
36.	4	Multiple Linear regression	4	13.12.21	Multiple LR-analysis	58		
37.	4	Improving accuracy of Linear Regression Model	4	14.12.21	Accuracy of M.LR.	57		
38.	4	k-fold cross validation method	4	15.12.21	K-fold method	56		
39.	4	Polynomial Regression Model	4	16.12.21	Polynomial Regression	57		

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No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
40.	4	Support Vector Machines-method	4	20.12.22	SVM - examples + Algorithm.	58		
41.	4	hyperplane, support vectors, Algorithm	4	22.12.22	Hyperplate, vectors + explanation	59		
42.	5	**Artificial Neural Networks-** Introduction	5	23.12.22	ANN - Introduction	55		
43.	5	Neural Network representation	5	30.12.22	Terms & Representation - ANN	56		
44.	5	Appropriate problems	5	03-1-22	Problems + Applications	55		
45.	5	Perceptron	5	4-1-22	Perceptrons - Examples	58		
46.	5	Back propagation algorithm.	5	5-1-22	Back propogation Algo	59		
47.	5	Back propagation algorithm-Example	5	6-1-22	Examples - Solving using BP	60		
48.	5	Deep Learning-Introduction	5	17-1-22	Deep Learning-Intro	60		
49.	5	Deep Learning Architectures	5	18-1-22	Architectures	61		
50.	5	Feed forward Networks	5	20-1-22	Feed forward n/ws	61		
51.	5	Convolutional Neural Network- Algorithm	5	24-1-22	CNN - Algorithm	61		
52.	5	Convolutional Neural Network- Examples	5	25-1-22	Exaple - using CNN	61		

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MASTER OF COMPUTER APPLICATIONS (NBA Accredited)

LESSON PLANNER

ODD SEMESTER – 2022

NAME OF THE FACULTY: Shobha Rani .B. R — SEMESTER : I

SUBJECT TITLE: Mathematical & Statistical Modelling for Computer Applications — SUBJECT CODE: 20MCA15

NO. OF CREDITS: 4 — NO. OF HOURS: 52

PLANNED								
No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
1.	1	Matrices-Introduction	1	07.02.2022	Matrices-Introduction	46		
2.	1	Rank of a matrix-Problems	1	08.02.2022	Rank of a matrix-Problems	46		
3.	1	Solving system of equations-Introduction	1	09.02.2000	Solving system of equations-Introduction	46		
4.	1	Solving system of equations-Examples	1	11.02.2022	Solving system of equations-Examples	46		
5.	1	Solving system of equations-Examples	1	14.02.2022	Solving system of equations-Examples	58		
6.	1	Eigen values-Problems	1	15.02.2022	Eigen values-Problems	57		
7.	1	Eigen values-Problems	1	16.02.2022	Eigen values-Problems	59		
8.	1	Eigenvectors -Problems	1	18.02.2022	Eigenvectors -Problems	58		
9.	1	Eigenvectors -Problems	1	21.02.2022	Eigenvectors -Problems	58		
10.	1	Cayley - Hamilton theorem - Inverse of a matrix.	1	22.02.2022	Cayley - Hamilton theorem - Inverse of a matrix.	57		

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No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
11.	1	Inverse of a matrix-Problems	1	23.02.2022	Inverse of a matrix-Problems	60		
12.	1	Inverse of a matrix-Problems	1	24.02.2022	Inverse of a matrix-Problems	60		
13.	2	Basic definitions - Venn diagrams	2	25.02.2022	Basic definitions - Venn diagrams	60		
14.	2	set operations - Laws of set theory	2	28.02.2022	set operations - Laws of set theory	60		
15.	2	Principle of inclusion and exclusion	2	02.03.2022	Principle of inclusion and exclusion	60		
16.	2	Principle of inclusion and exclusion - Problems	2	03.03.2022	Principle of inclusion and exclusion - Problems	60		
17.	2	Partitions -Problems	2	04.03.2022	Partitions -Problems	60		
18.	2	Permutation and combination – Problems	2	07.03.2022	Permutation and combination – Problems	60		
19.	2	Relations - Properties of relations – Matrices of relations	2	08.03.2022	Relations - Properties of relations – Matrices of relations	60		
20.	2	Closure operations on relations -	2	09.03.2022	Closure operations on relations -	60		
21.	2	Functions –Introduction	2	10.03.2022	Functions –Introduction	60		
22.	2	Injective, subjective and objective functions.	2	11.03.2022	Injective, subjective and objective functions.	60		
23.	3	Propositions and logical operators - Truth table	3	14.03.2022	Propositions and logical operators - Truth table	60		
24.	3	Propositions generated by a set - Problems	3	15.03.2022	Propositions generated by a set - Problems	59		

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No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
25.	3	Equivalence and implication - Basic laws - Problems	3	16.03.2022	Equivalence and implication - Basic laws - Problems	58		
26.	3	Some more connectives - Examples	3	18.03.2022	Some more connectives - Examples	58		
27.	3	Functionally complete set of connectives	3	21.03.2022	Functionally complete set of connectives	57		
28.	3	Normal forms - Problems	3	28.03.2022	Normal forms - Problems	56		
29.	3	Proofs in propositional calculus	3	29.03.2022	Proofs in propositional calculus	58		
30.	3	Proofs in propositional calculus -.	3	30.03.2022	Proofs in propositional calculus -.	55		
31.	3	Predicate calculus-Introduction	3	01.04.2022	Predicate calculus-Introduction	57		
32.	3	Predicate calculus-Problems	3	04.04.2022	Predicate calculus-Problems	58		
33.	4	Introduction-meaning and scope of statistics	4	05.04.2022	Introduction-meaning and scope of statistics	58		
34.	4	collection of data	4	06.04.2022	collection of data	57		
35.	4	classification and tabulation	4	08.04.2022	classification and tabulation	58		
36.	4	diagrammatic and graphical representation	4	09.04.2022	diagrammatic and graphical representation	54		
37.	4	measures of central tendency	4	09.04.2022	measures of central tendency	54		
38.	4	Problems	4	11.04.2022	Problems	55		
39.	4	measures of dispersions -Problems	4	12.04.2022	measures of dispersions -Problems	56		

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No. of Classes	Unit No.	Planned Lesson	Unit No.	Date	Lesson Covered	No. of Students	Faculty Sign	Remarks
40.	4	skewness -Introduction	4	18.04.2022	skewness -Introduction	58		
41.	4	Coefficients of Skewness-Problems	4	19.04.2022	Coefficients of Skewness-Problems	58		
42.	4	Kurtosis-Problems	4	25.04.2022	Kurtosis-Problems	57		
43.	5	Basics of correlation and regression	5	26.04.2022	Basics of correlation and regression	56		
44.	5	Correlation-Problems	5	27.04.2022	Correlation-Problems	58		
45.	5	partial correlation, multiple correlation	5	29.04.2022	partial correlation, multiple correlation	58		
46.	5	Theory of probability-Problems	5	04.05.2022	Theory of probability-Problems	58		
47.	5	theoretical distribution -Problems	5	06.05.2022	Theoretical distribution -Problems	58		
48.	5	Binomial distribution-Problems	5	09.05.2022	Binomial distribution-Problems	57		
49.	5	Poisson distribution-Problems	5	10.05.2022	Poisson distribution-Problems	58		
50.	5	Normal distribution -Problems	5	11.05.2022	Normal distribution -Problems	56		
51.	5	chi-square distribution -Problems	5	13.05.2022	chi-square distribution -Problems	58		
52.	5	regression analysis, and curve fitting	5	20.05.2022	regression analysis, and curve fitting	58		

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