



Indra Ganesan

COLLEGE OF ENGINEERING

Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai
Accredited by NAAC with 'B+' Grade, 2(f) & 12B Status Institution by UGC

IG Valley, Madurai Main Road, Manikandam, Tiruchirappalli - 620012

NAAC DOCUMENTS

QUALITY INDICATOR FRAME WORK

CRITERION – 1

CURRICULAR ASPECTS

SUBMITTED BY

IQAC

INTERNAL QUALITY ASSURANCE CELL

INDRA GANESAN COLLEGE OF ENGINEERING





DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ACADEMIC YEAR 2020-2021 / ODD SEMESTER

1.2 Academic Flexibility (30)

1.2.1 Number of Certificate/Value added courses offered and online courses of MOOCs,SWAYAM, NPTEL etc. (where the students of the institution have enrolled and successfully completed during the last five years)

AND

1.2.2 Percentage of students enrolled in Certificate/ Value added courses and also completed online courses of MOOCs, SWAYAM, NPTEL etc. as against the total number of students during the last five years

VAC Title:	MACHINE LEARNING WITH R				
Resource Person:	Mr. Eswaran, Project Manager Mind Soft Technologies, Bangalore.				
Date of conduct from:	14.12.2020	To:	18.12.2020	Duration:	30 Hours
Organized Department:	COMPUTER SCIENCE AND ENGINEERING				
Participant Year:	CSE IV,III,II, and M.E-I	Semester:	ODD	No. of Students Registered:	82
Venue:	Online mode Google Meet: meet.google.com/ 14.12.2020 to 18.12.2020				

Table of Content

S. No	Document	Page No
1.	VAC Circular	3-3
2.	VAC Schedule	4-4
3.	List of the Students Participation	5-7
4.	Attendance Of Students	8-15
5.	VAC Test Paper	16-17
6.	VAC Answer Key	18-18
7.	VAC Test Answer Sheet- Sample	19-20
8.	VAC Mark Statement	21-27
9.	VAC Report	28-29
10.	Course Completion Certificates	30-43



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Department of Computer Science and Engineering

Academic Year 2020-2021 –ODD Semester

11.12.2020

DEPARTMENT CIRCULAR

Department of Computer Science and Engineering and IQAC of IGCE in association with **Mind Soft Technologies**, is going to organize Value Added Course for UG II,III,IV and PG I year students on “**Machine Learning With R**” from 14.12.2020 to 18.12.2020. Certificates will be issued to the eligible participants at the end of the Course. This training is to be provided in our campus.

Resource Person Detail	I.Mr.Eswaran Project Manager Mind Soft Technologies, Bangalore
Venue	Google Meet: meet.google.com


HOD/CSE

Cc:

- Principal Table
- IQAC Co-Ordinator
- HoD/ CSE
- Class In charges - II, III & IV and PG I Year
- II, III & IV-Year and PG I CSE Students
- Office File
- NoticeBoard


PRINCIPAL


Dr. G. Palakrishnan, M.E., Ph.D.,
Principal
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Value Added Course

"Machine Learning with R"

SYLLABUS

S.NO	TOPIC COVERED	DURATION (in hours)	DATE
1	Introduction to Machine Learning and R Basics	3	14.12.2020
2	Data Preprocessing and Exploratory Data Analysis (EDA) in R	3	14.12.2020
3	Supervised Learning Algorithms	3	15.12.2020
4	Unsupervised Learning Algorithms	3	15.12.2020
5	Advanced Topics in Machine Learning with R	3	16.12.2020
6	Decision Trees and Random Forest	3	16.12.2020
7	Clustering (K-Means and Hierarchical)	3	17.12.2020
8	Principal Component Analysis (PCA)	3	17.12.2020
9	Neural Networks with the keras Package	3	18.12.2020
10	Real-world applications of machine learning with R	3	18.12.2020
11	Exam	1	18.12.2020
Total Hours(Excluding Exam)		30	-


VAC Coordinator


Dr. G. Balakrishnan, M.E., Ph.D.,
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Value Added Course

STUDENTS PARTICIPATION LIST

"Machine Learning with R"

S.NO.	REG.NO	STUDENT'S NAME	YEAR/ BRANCH
1	811217104001	AARTHI J	IV/CSE
2	811217104002	DEEPIKA N	IV/CSE
3	811217104003	DHANALAKSHMI R	IV/CSE
4	811217104004	GOADHAR FATHIMA S	IV/CSE
5	811217104005	GOWTHAM RAAJ K	IV/CSE
6	811217104007	JEYA PRATHA A	IV/CSE
7	811217104008	JICKSON S	IV/CSE
8	811217104009	KAMATCHI V	IV/CSE
9	811217104010	KOKILA V	IV/CSE
10	811217104011	LAKSHMI PRIYA M	IV/CSE
11	811217104012	NAVEEN R	IV/CSE
12	811217104013	PANNEER SELVAM R	IV/CSE
13	811217104014	PRINCY DEEPA X	IV/CSE
14	811217104015	RAGHUL L	IV/CSE
15	811217104016	SALMA BANU M	IV/CSE
16	811217104017	SEEBIKA M	IV/CSE
17	811217104019	SIVA SANKARI S	IV/CSE
18	811217104020	SWATHI M	IV/CSE
19	811217104022	VASUKI M	IV/CSE
20	811217104023	YOGESH KANNAN P H	IV/CSE
21	811218104001	AISHWARYA M	III/CSE
22	811218104002	AJITH KUMAR R	III/CSE
23	811218104003	ARAVINDH SAMY P	III/CSE
24	811218104004	ARJUN V	III/CSE
25	811218104005	DHARSHINI A	III/CSE
26	811218104006	DINESH KUMAR K	III/CSE
27	811218104007	GOWTHAM K	III/CSE
28	811218104008	HARIHARAN N	III/CSE
29	811218104009	HEMA LATHA B	III/CSE
30	811218104010	JEGATHISWARI D	III/CSE
31	811218104011	JOSHI DAYANA K	III/CSE
32	811218104012	KANAGARAJ K S	III/CSE
33	811218104013	KIRUTHIGA V	III/CSE

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S.NO.	REG.NO	STUDENT'S NAME	YEAR/ BRANCH
34	811218104014	MADHAVAN S	III/CSE
35	811218104015	MAHENDRAN S	III/CSE
36	811218104017	MUTHAIYA P	III/CSE
37	811218104018	NEETHIMOZHI A	III/CSE
38	811218104019	NITHYA P	III/CSE
39	811218104020	NIVEDHA S	III/CSE
40	811218104021	PRIYANGA.G	III/CSE
41	811218104022	RAMYA R	III/CSE
42	811218104023	SHARVESH CHARAN.S.A	III/CSE
43	811218104024	SATHASIVAM P	III/CSE
44	811218104026	SHALINI P	III/CSE
45	811218104027	SHANMUGANATHAN P	III/CSE
46	811218104028	SHEELA.S	III/CSE
47	811218104029	SUDHAKARAN C	III/CSE
48	811218104030	SUGASINI.G	III/CSE
49	811218104031	VAISHNAVI G	III/CSE
50	811218104032	VIGNA SRI S	III/CSE
51	811218104033	VIJAYA DHARANI K	III/CSE
52	811218104034	VINOTHINI S	III/CSE
53	811218104501	SIVASANGARI C	III/CSE
54	811219104001	ARUN R	II/CSE
55	811219104002	BALAMANIKANDAPRABHU B R	II/CSE
56	811219104003	BHARATHI S	II/CSE
57	811219104004	GOWTHAM C	II/CSE
58	811219104005	INDHUMATHI S	II/CSE
59	811219104006	ISHWARYA P	II/CSE
60	811219104007	KALAIYARASAN V	II/CSE
61	811219104008	KEERTHIKA K	II/CSE
62	811219104009	KEERTHIKA V	II/CSE
63	811219104010	KRISHI GOWTHAM R	II/CSE
64	811219104011	LOGADIPA SP	II/CSE
65	811219104012	MOHAMED Nowsath M	II/CSE
66	811219104013	MOORTHI C	II/CSE
67	811219104014	NANCY C	II/CSE
68	811219104016	PRAVEEN K	II/CSE
69	811219104017	RANJANA S	II/CSE
70	811219104018	RAVINYA K	II/CSE


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S.NO.	REG.NO	STUDENT'S NAME	YEAR/ BRANCH
71	811219104020	SARANYA P	II/CSE
72	811219104021	SUVALAKSHMI P	II/CSE
73	811219104022	SWEATHA B	II/CSE
74	811219104023	VIGNESHWARAN V	II/CSE
75	811219104024	VIJAYALAKSHMI B	II/CSE
76	811219104025	VINCY SHARMILA K	II/CSE
77	811219104026	YATHESH M	II/CSE
78	811220405001	DEEPA LAKSHMI N	I/M.E(CSE)
79	811220405002	ISWARYA R	I/M.E(CSE)
80	811220405003	KARTHIGA M	I/M.E(CSE)
81	811220405004	KARTHIKA M	I/M.E(CSE)
82	811220405005	RAMALAKSHMI M	I/M.E(CSE)

Dr. G. Balakrishnan, M.E., Ph.D.,
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VAC Coordinator

HOD/CSE



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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
15	811217104016	SALMA BANU M	IV/CSE	/	/	/	/	/	/	/	/	/	/		
16	811217104017	SEEBIKA M	IV/CSE	/	/	/	/	/	/	/	/	/	/	10	
17	811217104019	SIVA SANKARI S	IV/CSE	/	/	/	/	/	/	/	/	/	/	9	
18	811217104020	SWATHI M	IV/CSE	/	/	/	/	/	/	/	/	/	/	10	
19	811217104022	VASUKI M	IV/CSE	/	/	/	/	/	/	/	/	/	/	10	
20	811217104023	YOGESH KANNAN P H	IV/CSE	/	/	/	/	/	/	/	/	/	/	10	
21	811218104001	AISHWARYA M	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
22	811218104002	AJITH KUMAR R	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
23	811218104003	ARAVINDH SAMY P	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
24	811218104004	ARJUN V	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
25	811218104005	DHARSHINI A	III/CSE	/	/	/	/	/	/	/	/	/	/	9	
26	811218104006	DINESH KUMAR K	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
27	811218104007	GOWTHAM K	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
28	811218104008	HARIHARAN N	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
29	811218104009	HEMA LATHA B	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
30	811218104010	JEGATHISWARLD	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
31	811218104011	JOSHI DAYANA K	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
32	811218104012	KANAGARAJ K S	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
33	811218104013	KIRUTHIGA V	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
34	811218104014	MADHAVAN S	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
35	811218104015	MAHENDRAN S	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
36	811218104017	MUTHAIYA P	III/CSE	/	/	/	/	/	/	/	/	/	/	9	
37	811218104018	NLETHIMOZHI A	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
38	811218104019	NITHYA P	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
39	811218104020	NIVEDHA S	III/CSE	/	/	/	/	/	/	/	/	/	/	10	

Online Mode



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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
40	811218104021	PRIYANGA.G	II/CSE	/	/	/	/	/	/	/	/	/	/		
41	811218104022	RAMYA R	III/CSE	/	a	/	/	/	/	/	/	/	/	10	
42	811218104023	SHARVESH CHARAN.S.A	III/CSE	/	/	/	/	/	/	/	/	/	/	9	
43	811218104024	SATHASIVAM P	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
44	811218104026	SHALINI P	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
45	811218104027	SHANMUGANATHAN P	III/CSE	/	/	/	a	/	/	/	/	/	/	10	
46	811218104028	SHEELA.S	III/CSE	/	/	/	/	/	/	/	/	/	/	9	
47	811218104029	SUDHAKARAN C	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
48	811218104030	SUGASINLG	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
49	811218104031	VAISHNAVI G	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
50	811218104032	VIGNA SRI S	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
51	811218104033	VIJAYA DHARANI K	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
52	811218104034	VINOTHINI S	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
53	811218104501	SIVASANGARI C	III/CSE	/	/	/	/	/	/	/	/	/	/	10	
54	811219104001	ARUN R	II CSE	/	/	/	/	/	a	/	/	/	/	9	
55	811219104002	BALAMANIKANDAPRABHU B R	II CSE	/	/	/	/	/	/	/	/	/	/	10	
56	811219104003	BHARATHI S	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
57	811219104004	GOWTHAM C	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
58	811219104005	JNDHUMATHI S	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
59	811219104006	ISHWARYA P	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
60	811219104007	KAI AIYARASAN V	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
61	811219104008	KEERTHIKA K	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
62	811219104009	KEERTHIKA V	II/CSE	/	/	a	/	/	/	/	/	/	/	9	
63	811219104010	KRISHI GOWTHAM R	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
64	811219104011	LOGADIPA SP	II CSE	/	/	/	/	/	/	/	/	/	/	10	

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				FN	AN	FN	AN	FN	AN	FN	AN	FN	AN		
65	811219104012	MOHAMED NOWSATH M	II/CSE	/	/	a	/	/	/	/	/	/	/	9	Online Mode
66	811219104013	MOORTHY C	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
67	811219104014	NANCY C	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
68	811219104016	PRAVEEN K	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
69	811219104017	KANJANA S	II/CSE	/	a	/	/	/	/	/	/	/	/	9	
70	811219104018	RAVINYA K	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
71	811219104020	SARANYA P	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
72	811219104021	SUVALAKSHMI P	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
73	811219104022	SWEATHA B	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
74	811219104023	VIGNESHWARAN V	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
75	811219104024	VIJAYALAKSHMI B	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
76	811219104025	VINCY SHARMILA K	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
77	811219104026	VATHESH M	II/CSE	/	/	/	/	/	/	/	/	/	/	10	
78	811220405001	DEEPA LAKSHMI N	I/M.E(CSE)	/	/	/	/	/	a	/	/	/	/	9	
79	811220405002	ISWARYA R	I/M.E(CSE)	/	/	/	/	/	/	/	/	/	/	10	
80	811220405003	KARTHIGA M	I/M.E(CSE)	/	/	/	/	/	/	/	/	/	/	10	
81	811220405004	KARTHIKA M	I/M.E(CSE)	/	/	/	/	/	/	/	/	/	/	10	
82	811220405005	RAMAIAKSHMI M	I/M.E(CSE)	/	/	/	/	/	/	/	/	/	/	10	


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Name of the Student :

Year/Sem:

AU Register Number:

Value Added Course on "Machine learning with R"

MCQ QUESTIONS (25X4 = 100 Marks)

1. R was created by?

- a) Ross Ihaka
- b) Robert Gentleman
- c) Both A and B
- d) Ross Gentleman

2. R allows integration with the procedures written in the?

- a) C
- b) Ruby
- c) Java
- d) Basic

3. R is free software distributed under a GNU-style copy left, and an official part of the GNU project called?

- a) GNU A
- b) GNU S
- c) GNU L
- d) GNU R

4. R made its first appearance in?

- A. 1992
- B. 1995
- C. 1993
- D. 1994

5. Which of the following is true about R?

- A. R is a well-developed, simple and effective programming language
- B. R has an effective data handling and storage facility
- C. R provides a large, coherent and integrated collection of tools for data analysis.
- D. All of the above

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6. Point out the wrong statement?

- A. Setting up a workstation to take full advantage of the customizable features of R is a straightforward thing
- B. `q()` is used to quit the R program
- C. R has an inbuilt help facility similar to the `man` facility of UNIX
- D. Windows versions of R have other optional help systems also

7. Command lines entered at the console are limited to about _____ bytes

- A. 4095
- B. 4096
- C. 4097
- D. 4098

8. R language is a dialect of which of the following languages?

- A. s
- B. c
- C. sas
- D. matlab

9. How many atomic vector types does R have?

- A. 3
- B. 4
- C. 5
- D. 6

10. R files has an extension _____.

- A. S
- B. RP
- C. R
- D. SP

11. How do you start writing an if statement in R?

- A) `if (x > y)`
- B) `if x > y:`
- C) `if x > y then:`
- D) None of the above

12. _____ is simplest class of analytics.

- A) Predictive
- B) Prescriptive
- C) Summarization
- D) Descriptive

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Principal

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13. _____ is proprietary tool for predictive analytics.
- A) R
 - B) EDR
 - C) SAS
 - D) SSAS
14. Among the following which is not a horn clause?
- a) p
 - b) $\emptyset p \vee q$
 - c) $p \rightarrow q$
 - d) $p \rightarrow \emptyset q$
15. What is the purpose of regularization in machine learning?
- a) To reduce the number of features in a model
 - b) To prevent overfitting and improve generalization
 - c) To speed up the training process
 - d) To increase the accuracy of the model
16. Which of the following is an example of a semi-supervised learning problem?
- a) Image classification
 - b) Object detection
 - c) Text clustering
 - d) Speech recognition\
17. Which of the following is a common regularization technique for linear regression?
- a) L1 regularization (Lasso)
 - b) L2 regularization (Ridge)
 - c) Dropout
 - d) Batch normalization
18. Which of the following is a common approach to solving a time series forecasting problem?
- a) ARIMA models
 - b) Exponential smoothing
 - c) Recurrent neural networks
 - d) All of the above
19. Which of the following is a common activation function used in deep learning?
- a) Sigmoid
 - b) Linear
 - c) Exponential

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d) Quadratic

20. Which of the following is an example of an unsupervised learning problem?

- a) Predicting the stock market
- b) Recommending products to users
- c) Spam filtering
- d) Sentiment analysis

21. Which of the following is a disadvantage of decision trees?

- A. Factor analysis
- B. Decision trees are robust to outliers
- C. Decision trees are prone to be overfit
- D. None of the above

22. How do you handle missing or corrupted data in a dataset?

- A. Drop missing rows or columns
- B. Replace missing values with mean/median/mode
- C. Assign a unique category to missing values
- D. All of the above

23. When performing regression or classification, which of the following is the correct way to preprocess the data?

- A. Normalize the data -> PCA -> training
- B. PCA -> normalize PCA output -> training
- C. Normalize the data -> PCA -> normalize PCA output -> training
- D. None of the above

24. Which of the following statements about regularization is not correct?

- A. Using too large a value of lambda can cause your hypothesis to underfit the data.
- B. Using too large a value of lambda can cause your hypothesis to overfit the data
- C. Using a very large value of lambda cannot hurt the performance of your hypothesis.
- D. None of the above

25. What is a sentence parser typically used for?

- A. It is used to parse sentences to check if they are utf-8 compliant.
- B. It is used to parse sentences to derive their most likely syntax tree structures.
- C. It is used to parse sentences to assign POS tags to all tokens.
- D. It is used to check if sentences can be parsed into meaningful tokens.

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Value Added Course

“Machine learning with R”

ANSWER KEY


1	C	6	B	11	C	16	C	21	A
2	A	7	A	12	B	17	B	22	C
3	B	8	A	13	A	18	A	23	C
4	C	9	B	14	B	19	A	24	B
5	D	10	C	15	C	20	C	25	B

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22
25

1. c) Both A and B ✓
2. A) C ✓
3. B) GCMUS ✓
4. C) 1993 ✓
5. D) All of the above ✓
6. B) q() is used to quit the R program
7. A) 4095 ✓
8. A) S ✓
9. B) A ✓
10. C) R ✓
11. C) if $x > y$ then ✓
12. B) prescriptive ✓
13. A) R ✓
14. B) $\emptyset P V q$ ✓
15. C) To speed up the training process ✓
16. C) Text clustering ✓
17. B) L2 regularization (Ridge) ✓
18. A) ARIMA models ✓
19. A) Sigmoid ✓
20. C) spam filtering ✓
21. A) Factor analysis ✓
22. C) ~~Decision~~. Assign a unique category to missing values ✓
23. D) None of the above ✓
24. D) None of the above ✓
25. A) It is used to parse sentences to check if they are utf8 ✓


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Laxmidipa
2nd CSE
811219104031

20
25

Q...

- 1) A) Ross Thaka X
- 2) A) c ✓
- 3) B) GNU S ✓
- 4) d) 1993 X
- 5) D) All of the above ✓
- 6) B) q() is used to quit the R program ✓
- 7) A) A095 ✓
- 8) A) S ✓
- 9) D) 6 X
- 10) R ✓
- 11) c) if $x > y$ then: ✓
- 12) B) p_{1,23} explode ✓
- 13) A) R ✓
- 14) B) $\phi p \vee q$ ✓
- 15) c) To speed up the training process ✓
- 16) c) Test clustering ✓
- 17) B) L₂ regularization (Ridge) ✓
- 18) A) ARIMA models ✓
- 19) A) Sigmoid ✓
- 20) c) Spam filtering ✓
- 21) A) factor analysis ✓
- 22) c) Assign a unique category to missing values ✓
- 23) D) None of the above ✓
- 24) D) None of the above ✓
- 25) B) It is used to parse sentences to check if they are cdf - 8 compliant. ✓

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STUDENTS MARK SHEET LIST

VALUE ADDED COURSE

Machine learning with R

S.No.	Reg.No	Student's Name	Year/ Branch	Attendance Details		VAC-MCQ TEST		OVERALL MARK(100) (50% of A + 50% of B)
				No. of Session Attende d	Attendance Percentage (100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
1	811217104001	AARTHI J	IV/CSE	30	100	20	80	90
2	811217104002	DEEPIKA N	IV/CSE	30	83	15	60	72
3	811217104003	DHANALAKSHMI R	IV/CSE	30	100	19	76	88
4	811217104004	GOADHAR FATHIMA S	IV/CSE	30	100	22	88	94
5	811217104005	GOWTHAM RAAJ K	IV/CSE	29	92	18	72	82
6	811217104007	JEYA PRATHA A	IV/CSE	28	92	17	68	80
7	811217104008	JICKSON S	IV/CSE	28	100	18	72	86
8	811217104009	KAMATCHI V	IV/CSE	29	83	17	68	76
9	811217104010	KOKILA V	IV/CSE	29	92	16	64	78
10	811217104011	LAKSHMI PRIYA M	IV/CSE	30	92	16	64	78
11	811217104012	NAVEEN R	IV/CSE	30	100	20	80	90
12	811217104013	PANNEER SELVAM R	IV/CSE	30	92	20	80	90
13	811217104014	PRINCY DEEPA X	IV/CSE	28	100	22	88	94
14	811217104015	RAGHUL L	IV/CSE	29	92	17	68	80
15	811217104016	SALMA BANU M	IV/CSE	29	83	16	64	74
16	811217104017	SEEBIKA M	IV/CSE	30	83	16	64	74



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17	811217104019	SIVA SANKARI S	IV/CSE	30	100	22	88	94
18	811217104020	SWATHI M	IV/CSE	30	92	18	72	82
19	811217104022	VASUKI M	IV/CSE	30	100	22	88	94
20	811217104023	YOGESH KANNAN P H	IV/CSE	28	100	22	88	94
21	811218104001	AISHWARYA M	III/CSE	28	92	20	80	86
22	811218104002	AJITH KUMAR R	III/CSE	28	92	19	76	84
23	811218104003	ARAVINDH SAMY P	III/CSE	29	100	20	80	90
24	811218104004	ARJUN V	III/CSE	29	83	23	64	74
25	811218104005	DHARSHINI A	III/CSE	29	83	22	64	74
26	811218104006	DINESH KUMAR K	III/CSE	30	100	22	88	94
27	811218104007	GOWTHAM K	III/CSE	30	92	18	72	82
28	811218104008	HARIHARAN N	III/CSE	30	100	22	88	94
29	811218104009	HEMA LATHA B	III/CSE	30	100	22	88	94
30	811218104010	JEGATHISWARI D	III/CSE	29	100	22	88	94
31	811218104011	JOSHI DAYANA K	III/CSE	29	92	22	68	80
32	811218104012	KANAGARAJ K S	III/CSE	29	92	19	76	84
33	811218104013	KIRUTHIGA V	III/CSE	30	92	19	76	84
34	811218104014	MADHAVAN S	III/CSE	30	100	20	80	90
35	811218104015	MAHENDRAN S	III/CSE	30	83	18	64	74
36	811218104017	MUTHAIYA P	III/CSE	28	83	16	64	74
37	811218104018	NEETHIMOZHI A	III/CSE	28	100	22	88	94
38	811218104019	NITHYA P	III/CSE	28	92	18	72	82
39	811218104020	NIVEDHA S	III/CSE	30	100	22	88	94



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				No. of Session Attende d	Attendance Percentage (100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
40	811218104021	PRIYANGA.G	III/CSE	30	100	20	80	90
41	811218104022	RAMYA R	III/CSE	30	83	16	64	74
42	811218104023	SHARVESH CHARAN.S.A	III/CSE	29	92	19	76	84
43	811218104024	SATHASIVAM P	III/CSE	29	92	19	76	84
44	811218104026	SHALINI P	III/CSE	29	100	20	80	90
45	811218104027	SHANMUGANATHAN P	III/CSE	29	83	16	64	74
46	811218104028	SHEELA.S	III/CSE	29	83	16	64	74
47	811218104029	SUDHAKARAN C	III/CSE	29	100	22	88	94
48	811218104030	SUGASINIG	III/CSE	30	92	18	72	82
49	811218104031	VAISHNAVI G	III/CSE	30	92	19	76	84
50	811218104032	VIGNA SRI S	III/CSE	30	92	19	76	84
51	811218104033	VIJAYA DHARANI K	III/CSE	30	100	20	80	90
52	811218104034	VINOTHINI S	III/CSE	30	100	20	80	90
53	811218104501	SIVASANGARI C	III/CSE	30	83	16	64	74
54	811219104001	ARUN R	II/CSE	30	83	16	64	74
55	811219104002	BALAMANIKANDAPRABHU B R	II/CSE	30	100	22	88	94
56	811219104003	BHARATHI S	II/CSE	30	92	18	72	82
57	811219104004	GOWTHAM C	II/CSE	30	100	22	88	94
58	811219104005	INDHUMATHI S	II/CSE	30	100	22	88	94
59	811219104006	ISHWARYA P	II/CSE	30	100	22	88	94
60	811219104007	KALAIYARASAN V	II/CSE	29	100	20	80	90
61	811219104008	KEERTHIKA K	II/CSE	29	83	16	64	74
62	811219104009	KEERTHIKA V	II/CSE	28	83	16	64	74



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				No. of Session Attended	Attendance Percentage (100) (A)	No of Correct Answers	MCQ Mark(100) (B)	
63	811219104010	KRISHI GOWTHAM R	II/CSE	28	100	22	88	74
64	811219104011	LOGADIPA SP	II/CSE	29	100	20	80	74
65	811219104012	MOHAMED NOWSATH M	II/CSE	29	83	16	64	94
66	811219104013	MOORTHIC	II/CSE	29	100	22	88	90
67	811219104014	NANCY C	II/CSE	29	92	18	72	74
68	811219104016	PRAVEEN K	II/CSE	30	100	22	88	94
69	811219104017	RANJANA S	II/CSE	30	83	16	64	82
70	811219104018	RAVINYA K	II/CSE	30	100	22	88	94
71	811219104020	SARANYA P	II/CSE	30	92	18	72	74
72	811219104021	SUVALAKSHMI P	II/CSE	30	100	22	64	94
73	811219104022	SWEATHA B	II/CSE	30	92	18	64	82
74	811219104023	VIGNESHWARAN V	II/CSE	30	100	22	88	82
75	811219104024	VIJAYALAKSHMI B	II/CSE	30	100	22	72	78
76	811219104025	VINCY SHARMILA K	II/CSE	30	92	22	88	94
77	811219104026	YATHESH M	II/CSE	29	100	20	88	86
78	811220405001	DEEPA LAKSHMI N	I/M.E(CSE)	29	100	16	88	90
79	811220405002	ISWARYA R	I/M.E(CSE)	29	83	16	80	94
80	811220405003	KARTHIGA M	I/M.E(CSE)	30	100	22	64	94
81	811220405004	KARTHIKA M	I/M.E(CSE)	30	92	20	64	82
82	811220405005	RAMALAKSHMI M	I/M.E(CSE)	30	100	16	88	82

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VAC Coordinator

D. Reddy
HoD/CSE



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Report On Value Added Course

Title	MACHINE LEARNING WITH R				
Resource Person:	Mr.Eswaran, Project Manager Mind Soft Technologies, Bangalore				
Date of conduct from :	14.12.2020	To:	18.12.2020	Duration:	30 Hours
Organized Department	COMPUTER SCIENCE AND ENGINEERING				
Participant	CSE IV,III ,II and PG I Year		No. of Students Registered	82	
Venue:	online mode Google Meet: meet.google.com/14.12.2020 to 18.12.2020				

Outcome of Value Added Course (VAC): At the end of the Course, Students can able to

- Know the fundamentals of MACHINE learning and its architecture.
- Discuss Module, controllers, Events
- Apply inbuilt and custom pipes
- Develop object-oriented Ruby programs using classes and objects
- Design forms and Modules in Machine Learning
- Explain Services, Animations, Routing.

Assessment Process

- Students, who are securing more than 60% on total score and secured more than 75% in attendance is eligible to receive the certificate for the VAC course conducted
- Total Score = $(0.5 * \text{Attendance in VAC out of 100 percentage} + 0.5 * \text{Test mark in VAC out of 100 marks})$

A. Suresh
VAC Coordinator

D. Reddy
HoD/CSE

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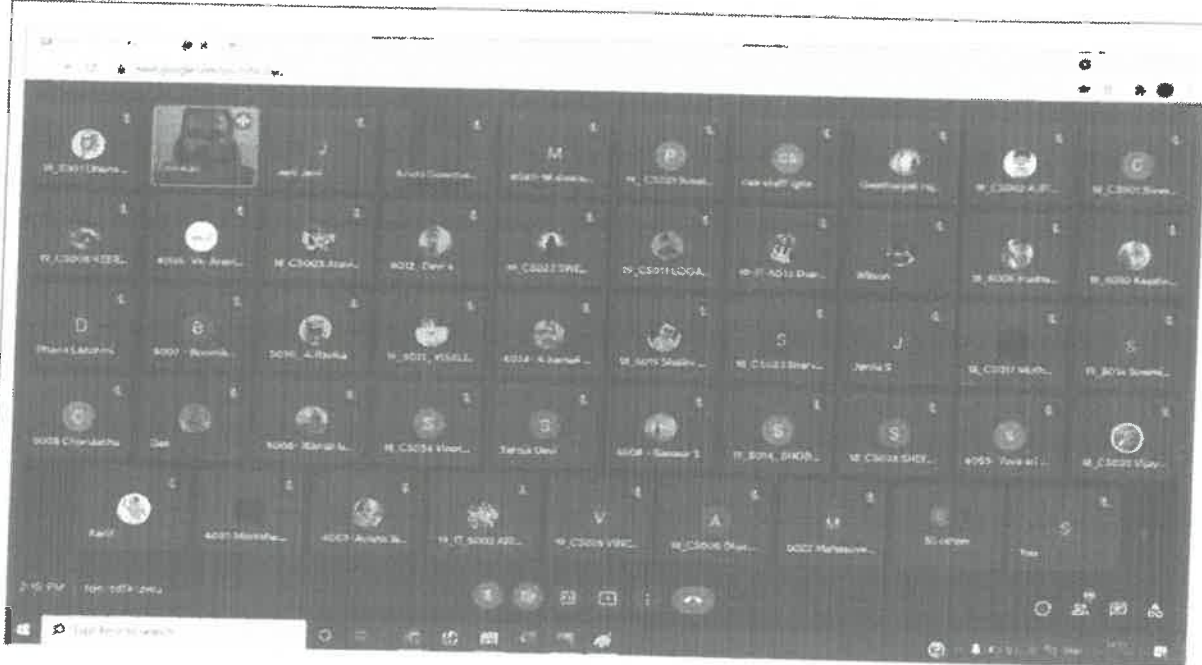
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Sample Photo



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VAC Coordinator

D. Reddy
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*This is to certify that Mr/Ms.**RAMALAKSHMI M.**..... of
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Machine Learning With R organized by Department of Computer Science and Engineering and
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Dec 2020 during the Academic Year 2020-2021.*

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This is to certify that Mr/Ms. **KIRUTHIGA V** of
..... **III YEAR CSE** has successfully completed the Value Added Course on
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This is to certify that Mr/Ms. **JAGADEESWARI D**..... of
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