

SN COLLEGE, CHENGANNUR

DEPARTMENT OF MATHEMATICS  
2021-2022

**Certificate course on  
Data Analysis using R software**



With

**Dr. Preeth M**



**REGISTER NOW**

**For registration details contact:**

**Lekshmi K S**



# Sree Narayana College Chengannur

of Kerala

NAAC Accredited with B Grade

## Minutes of the Meeting of Board of Studies

### Attendees:-

1. Smt. Shereen K (Principal)
2. Dr. K Sreelatha (Chairman, Board of studies)
3. Dr. Smitha Sasidharan (IQAC Coordinator)
4. Miss. Lekshmi.K.S (Head in Charge , Department of Mathematics)
5. Smt. Kuleena Das (External Member)

**Venue:** Principal's Chamber

**Date&Time:** 23/06/2021 at 2.00pm


### Agenda:

1. Review of Certificate course proposal

### Minutes:

1. Reviewed the certificate course proposal submitted by Department of Mathematics.
2. Approved the syllabus and proposal of the certificate course on "Data Analysis using R Software"



  
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Department of Mathematics

24/06/2021

## Notice

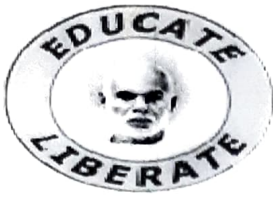
Department of Mathematics has decided to begin a certificate course in **Certificate Course on Data Analysis using R software**. Those who are interested to join the programme are requested to contact the HOD, Mathematics department.

Lekshmi.K.S

HOD in charge Mathematics

Head of The Department  
Department of Mathematics  
Sree Narayana College  
Chengannur





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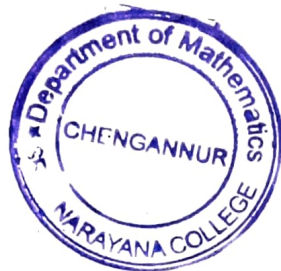
**Department of Mathematics**


**TWO MONTH CERTIFICATE COURSE 2021-2022**

**COURSE CODE AND NAME – MM21RS Certificate Course on Data Analysis using R software**

**List of members of Board of Studies**

<b>Name</b>	<b>Designation</b>	<b>Position held</b>
Miss.Lekshmi.K.S	Guest Faculty	Chairman
Mr.Ajay sasidharan	Guest Faculty	Member
Miss.Sreela S	Guest Faculty	Member
Smt.Jesylin	Guest Faculty	Member



  
Head of The Department  
Department of Mathematics  
Sree Narayana College  
Chengannur

From

Lekshmi K S

HOD in charge Mathematics

Sree Narayana College

Chengannur

To

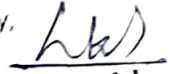
The Principal

Sree Narayana College

Chengannur

Kindly grant permission to commence certificate course in **Certificate Course on Data Analysis using R software** under the aegis of Mathematics department.

Yours faithfully,



Lekshmi K S

Place : Chengannur

Date : 26/07/2021



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**Department of Mathematics**  
**TWO MONTH CERTIFICATE COURSE**

**COURSE CODE AND NAME – MM21RS Certificate Course on Data Analysis using R software**

DURATION -30 Hrs

**Learning Objectives:** In this course students will learn R. Programming language, data analytics, data visualisation and statistical model for data analytics. By completion of this course, students will be able to become data analyst.

**SYLLABUS**

**MODULE 1(5hr)**

Introduction to Data Analysis Overview of Data Analytics, Need of Data Analytics, Nature of Data, Classification of Data: Structured, Semi-Structured, Unstructured, Characteristics of Data, Applications of Data Analytics

**MODULE 2(7hr)**

R Programming Basics Overview of R programming, Environment setup with R Studio, R Commands, Variables and Data Types, Control Structures, Array, Matrix, Vectors, Factors, Functions, R packages.

**MODULE 3(8 hr)**

Data Visualization using R Reading and getting data into R (External Data): Using CSV files, XML files, Web Data, JSON files, Databases, Excel files. Working with R Charts and Graphs: Histograms, Boxplots, Bar Charts, Line Graphs, Scatterplots, Pie Charts

**MODULE 4(10 hr)**

Statistics with R Random Forest, Decision Tree, Normal and Binomial distributions, Time Series Analysis, Linear and Multiple Regression, Logistic Regression, Creating data for analytics through designed experiments, Creating data for analytics through active learning, Creating data for analytics through reinforcement learning



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**Upon successful completion of the course, the student will be able to:**

CO1: Apply R programming and understand different data sets .

CO2 :Apply R Programme and construct graphs and charts .


CO3 :Analyze the data and know descriptive statistics by using R Programming.

CO4 :Apply R Programming to test the hypothesis of the study.

CO5: Predict the data and take decisions through R programming.

**Reference Books:**

- An Introduction to R, Notes on R: A Programming Environment for Data Analysis and Graphics. W. N. Venables, D.M. Smith and the R Development Core Team. Version 3.0.1 (2013-05-16). URL: <https://cran.r-project.org/doc/manuals/r-release/R-intro.pdf>
- 1. Jared P Lander, R for everyone: advanced analytics and graphics, Pearson Education, 2013
- Dunlop, Dorothy D., and Ajit C. Tamhane. Statistics and data analysis: from elementary to intermediate. Prentice Hall, 2000.



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# SREE NARAYANA COLLEGE

CHENGANNUR, ALAPUZHA, KERALA

Aided College Affiliated to University of Kerala

Established in 1954

Department of Mathematics

TWO MONTH CERTIFICATE COURSE

COURSE CODE AND NAME – MM21RS Certificate Course on Data Analysis using R software

DURATION - 30 Hrs

## List of enrolled students

Sl No	Name	Class	
1.	AKHILA AJAYAKUMAR	BSc Mathematics	Akhila
2.	AKSHARA R	BSc Mathematics	Akshara
3.	ANU MADHU	BSc Chemistry	Anu
4.	APARNA J	BSc Mathematics	Aparna
5.	ARATHY S	BSc Mathematics	Arathy
6.	ARSHA RAJ	BSc Chemistry	Arsha
7.	ASHIVA	BSc Chemistry	Ashiva
8.	ASWANI D CHANDRAN	BSc Mathematics	Aswani
9.	ASWIN S P	BSc Chemistry	Aswin
10.	ASWIN SIVANDHAN	BSc Chemistry	Aswin
11.	AVANI KRISHNAN	BSc Mathematics	Avani
12.	B.SNEHA	BSc Chemistry	Sneha
13.	DIVYA VIJAYAN	BA Economics	Divya
14.	HARITHA HARIKUMAR	BSc Chemistry	Haritha
15.	HASHMI HABBIES	BA Economics	Hashmi
16.	RAHUL R	BSc Chemistry	Rahul
17.	RAHUL N.R	BSc Chemistry	Rahul
18.	RASHINA A	BSc Chemistry	Rashina
19.	SAJAN S LAWRENCE	BSc Mathematics	Sajan
20.	SIVA KUMAR	BSc Mathematics	Siva
21.	SNEHA M	BSc Chemistry	Sneha
22.	SREERAJ R	BSc Chemistry	Sreeraj
23.	SREERAJ S	BSc Chemistry	Sreeraj
24.	SUMAYYA J	BSc Chemistry	Sumayya
25.	UNNIMAYA J	BSc Chemistry	Unnimaya
26.	VARUN J	BSc Mathematics	Varun
27.	VIDHYA VIJAYAN	BSc Mathematics	Vidhya





28.	KARUN.B	BA Economics	<u>Karun B</u>
29.	MIDHYA.J	BA Economics	<u>Midha</u>
30.	RESHMA.S	BA Economics	<u>Resha</u>
31.	SHAHANASHAJAHAN	BA Economics	<u>Shaha</u>
32.	SHINU SEBASTIAN	BA Economics	<u>Shinu</u>
33.	VJAY R KRISHNAN	BA Economics	<u>Vijay</u>
34.	VJAYALEKSHMI.G	BA Economics	<u>Vijalakshmi</u>
35.	ADVAITH BODHA.P	BA Economics	<u>Advait</u>
36.	AJANYA.S	BA Economics	<u>Ajanya</u>
37.	AJITHA	BA Economics	<u>Ajitha</u>
38.	AKASH.S	BA Economics	<u>Akash</u>
39.	AKHILA	BA Economics	<u>Akhila</u>
40.	AKHILA BALAN	BA Economics	<u>Akhila Balan</u>



*[Handwritten Signature]*  
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# ATTENDANCE

# REGISTER

Name of Course Data analysis using R software Teacher(S) P. Preed Month (S) August 2021 No. of Instructional Hours 30 hours

Sl. No.	Name of Student	Date Hour	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	Signature	No. of Days Present
			T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T	T		
1)	Aswin S P		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Aswin		
2)	B. Sacha		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	B. Sacha		
3)	Hazilka Thaikumar		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Hazilka		
4)	Rahul. NR		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Rahul		
5)	Sumayya. J		X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Sumayya		
6)	Anu. Madhu		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Anu		
7)	Assha. Raj		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Assha		
8)	Ashina		X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Ashina		
9)	Aswin Sivanandan		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Aswin		
10)	Rahul. R		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Rahul		
11)	Rashina. A		X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Rashina		
12)	Sreba. M		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Sreba		
13)	Sreeraj. R		X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Sreeraj		
14)	Sreeraj. S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Sreeraj		
15)	unnimaya. J		X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	unnimaya		
16)	Aswani. D. Chaitan		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Aswani		
17)	Sajan S Lawrence		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Sajan		
18)	Vasun J		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Vasun		
19)	Akhila Ajaykumar		X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Akhila		
20)	Akshara. R		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Akshara		
21)	Aparna. J		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Aparna		
22)	Arathy. S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Arathy		
23)	Avani Krishnan		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Avani		
24)	Siva Kumar		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Siva		
25)	Vidhya Vijayan		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Vidhya		



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Signature of Teacher

Signature of HOD

# ATTENDANCE

# REGISTER

Name of Course Data analysis using R software Teacher(S) D. Prasad Month (S) August 2021 No. of Instructional Hours 50 hours

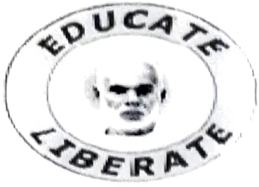
Sl. No.	Name of Student	Date Hour															Signature	No. of Days Present		
			1/8	2/8	3/8	4/8	5/8	6/8	7/8	8/8	9/8	10/8	11/8	12/8	13/8	14/8				
26	Divya vijayan		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Divya	
27	Hashmi Habbies		X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	Hashmi	
28	Karun. B		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Karun	
29	Midhya. J		X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	Midhya	
30	Roshni. S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Roshni	
31	Sabanasabjanan		X	X	X	X	a	X	X	X	X	X	X	a	X	X	X	X	Sabanasabjanan	
32	Shinu Sebastian		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Shinu	
33	Vijay R krishnan		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Vijay R krishnan	
34	VijayaLekshmi. G		X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	VijayaLekshmi	
35	Advaitb Badha. P		X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	Advaitb Badha	
36	Ajanya. S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Ajanya	
37	Ajith. A		X	X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	Ajith	
38	Akash. S		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Akash	
39	Akhil. A		X	X	X	a	X	X	X	X	X	X	X	X	X	X	X	X	Akhil	
40	Akhila Balan		X	X	X	X	X	X	X	a	X	X	X	X	X	X	X	X	Akhila	



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Signature of Teacher

Signature of HOD



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**Department of Mathematics**  
**TWO MONTH CERTIFICATE COURSE**


**COURSE CODE AND NAME – MM21RS Certificate Course on Data Analysis using R software**

DURATION -30 Hrs

LIST OF TEACHERS HANDLING THE COURSE

- Dr.Preeth M (Assistant Professor , Department of Statistics, TKMMM Nagiarkulangara)



  
Head of The Department  
Department of Mathematics  
Sree Narayana College  
Chengannur



  
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SREE NARAYANA COLLEGE CHENGANNUR  
Department of mathematics  
2021-22


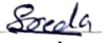

Title of course

Data analysis using R software  
meeting held on: 02/10/2021

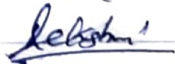
minutes Report

The board of studies has decided to  
publish the result on 08/10/2021

Attendance statement of meeting

Sl No:	Name of faculty	Signature
1)	Miss Lekshmi K.S	
2)	Miss Sreela.S	
3)	Ms Ajay Sasidharan	



For HOD  


Head of The Department  
Department of Mathematics  
Sree Narayana College  
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Department of Mathematics

TWO MONTH CERTIFICATE COURSE

COURSE CODE AND NAME – MM21RS Certificate Course on Data Analysis using R software

DURATION - 30 Hrs

## List of passed students

Sl No	Name	Class
1.	AKHILA AJAYAKUMAR	BSc Mathematics
2.	AKSHARA R	BSc Mathematics
3.	ANU MADHU	BSc Chemistry
4.	APARNA J	BSc Mathematics
5.	ARATHY S	BSc Mathematics
6.	ARSHA RAJ	BSc Chemistry
7.	ASHIVA	BSc Chemistry
8.	ASWANI D CHANDRAN	BSc Mathematics
9.	ASWIN S P	BSc Chemistry
10.	ASWIN SIVANDHAN	BSc Chemistry
11.	AVANI KRISHNAN	BSc Mathematics
12.	B.SNEHA	BSc Chemistry
13.	DIVYA VIJAYAN	BA Economics
14.	HARITHA HARIKUMAR	BSc Chemistry
15.	HASHMI HABBIES	BA Economics
16.	RAHUL R	BSc Chemistry
17.	RAHUL.N.R	BSc Chemistry
18.	RASHINA A	BSc Chemistry
19.	SAJAN S LAWRENCE	BSc Mathematics
20.	SIVA KUMAR	BSc Mathematics
21.	SNEHA M	BSc Chemistry
22.	SREERAJ R	BSc Chemistry
23.	SREERAJ S	BSc Chemistry
24.	SUMAYYA J	BSc Chemistry
25.	UNNIMAYA J	BSc Chemistry
26.	VARUN J	BSc Mathematics
27.	VIDHYA VIJAYAN	BSc Mathematics



28.	KARUN.B	BA Economics
29.	MIDHYA.J	BA Economics
30.	RESHMA.S	BA Economics
31.	SHAHANASHAJAHAN	BA Economics
32.	SHINU SEBASTIAN	BA Economics
33.	VIJAY R KRISHNAN	BA Economics
34.	VIJAYALEKSHMI.G	BA Economics
35.	ADVAITH BODHA.P	BA Economics
36.	AJANYA.S	BA Economics
37.	AJITH.A	BA Economics
38.	AKASH.S	BA Economics
39.	AKHIL.A	BA Economics
40.	AKHILA BALAN	BA Economics



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## Department of Mathematics

### Certificate Course Report

**TWO MONTH CERTIFICATE COURSE 2021-2022**

**COURSE CODE AND NAME – MM21RS Certificate Course on Data Analysis using R software**

A Meeting was held on 22/07/2021 at 10.30 am in the department of Mathematics to discuss about the commencement of certificate course on Data Analysis using R software.

The members of the board of studies for certificate course were present in the meeting. Chairman : Miss.Lekshmi K S presided by the meeting.All together 40 students applied for the course.The classes were handled by Dr.PreethM , Assistant Professor, Department of Statistics ,TKMM Nagiarkulangara.The class commenced on 2/08/2021.Both theory and practical clases were conducted for this students.

After successfully completing the classes practical exam was conducted on 25/10/2021 from 10.30 am to 12.30 pm ,all the students attended the exam and the pass percentage was 100%.

Thus the certificate course helped students to gain practical knowledge in this field.also this was an added advantage for the students to enhance their skill development as well as their carriculum vitae.



  
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**SREE NARAYANA COLLEGE ,CHENGANNUR**  
**DEPARTMENT OF MATHEMATICS**  
**CERTIFICATE COURSE ON DATA ANALYSIS USING R SOFTWARE**

*Certificate*

*This is to certify that...Haziha Hazikumar.....has  
successfully completed the course conducted by the  
Department of Mathematics from August 2021 to  
September 2021.*

*Laks*

**LAKSHMI K S**  
**Head of the Department**



*Smt. Shereen.K*

**Smt.Shereen.K**  
**Principal**

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