

संख्याशास्त्र विभाग,  
विवेकानंद कॉलेज, कोल्हापूर.  
दि. २९.१२.२०२३

प्रति,  
मा. प्राचार्य,  
विवेकानंद कॉलेज,  
कोल्हापूर.

विषय :- R- Programming चे वर्कशॉप घेण्याकरिता परवानगी व त्यासाठी  
लागणाऱ्या खर्चास मंजूरी मिळणेबाबत . . .

महोदय,  
आपल्या महाविद्यालयातील संख्याशास्त्र विभागामध्ये बी. एस्सी. भाग ३ मधील  
विद्यार्थ्यांसाठी R- Programming चे आठ दिवसांचे वर्कशॉप दि. ०२.०१.२०२४ ते दि. १०.०१.२०२४  
या कालावधीमध्ये घेण्यास परवानगी मिळावी तसेच या वर्कशॉप साठी अंदाजे रु. १५००/- खर्च येणार आहे.  
तरी सदर खर्चास मंजूरी मिळावी ही विनंती.

कळावे,

आपली विश्वासू,


मंडळी/मंडळी २१५२

०१-०१-२०२४



Approved

११  
१.१.२४

  
(व्ही. व्ही. पवार)

विभाग प्रमुख  
संख्याशास्त्र विभाग,  
विवेकानंद कॉलेज कोल्हापूर.  
(अधिकारप्रदत्त स्वायत्त)

“ज्ञान विज्ञान आणि सुसंस्कार यासाठी शिक्षण प्रसार”

प. प. शिक्षणमहर्षि डॉ. बापुजी साळुंखे

Shri Swami Vivekanand Shikshan Sanstha's

VIVEKANAND COLLEGE, KOLHAPUR (Empowered Autonomous)

## Department of Statistics


### Notice

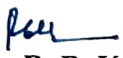
Date :- 29.12.2023

All the students of B. Sc. - III are hereby informed that, our department organizes a “Workshop on R - Programming” from 02<sup>nd</sup> January 2024 to 10<sup>th</sup> January 2024. The time table of the program is as below.

Day	Day & Date	Topic Name	Lecturer	Time
1	Tuesday 02/01/2024	<b>Fundamentals of R:</b> Installation and introduction to R, History. Object identification Creation of vector using commands: Combine (c), scan, cbind, rbind, seq, rep, edit, sort, length, which, order.	Mr. Mali K.M.	8.30 am - 10.30am
2	Wednesday 03/01/2024	Operations on vectors, Relation operators, Logical Operators, Assignment Operators. Object Identification	Mr. Mali K.M.	8.30 am - 10.30am
3	Thursday 04/01/2024	Matrix manipulation, Creation of data frame	Ms. Pandhare Rutuja S.	8.30 am - 10.30am
4	Friday 05/01/2024	Import and export data, For loop, while loop, if else statement, break statement	Ms. Patil Rutuja M.	8.30 am - 10.30am
5	Saturday 06/01/2024	<b>Exploratory data analysis:</b> mean, variance, quantiles, pdf, cdf, random numbers, correlation, summary	Mr. Tangawade Atish S.	8.30 am - 10.30am
6	Saturday 08/01/2024	Data visualization Diagrammatic representation of data	Mr. Bhosale A.B.	8.30 am - 10.30am
7	Tuesday 09/01/2024	Graphical representation of data. random number generation	Ms. Bhosale A.K.	8.30 am - 10.30am
8	Wednesday 10/01/2024	Installation of packages <b>Statistical tools:</b> prop.test, t.test, wilcox.test, ks.test, chisq.test, cor.test, linear regression.	Mr. Pawar Ajit A.	8.30 am - 10.30am

Venue :- B.Sc./ M.Sc. Computer Lab I department of Statistics

  
Ms. V. V. Pawar  
HEAD  
DEPARTMENT OF STATISTICS  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)

  
Dr. R. R. Kumbhar  
PRINCIPAL  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)

**Vivekanand College Kolhapur (Empowered Autonomous)**

**Department of Statistics**

**Workshop on R - Programming Dt. 02.01.2024 to 10.01.2024**

**Attendance Report**

Sr No	Roll No	Name of The Students	02.01.2024	03.01.2024	04.01.2024	05.01.2024	06.01.2024	08.01.2024	09.01.2024	10.01.2024
1	8303	BHUDARGADE SHREYA SANTOSH	AB	AB	AB	Bhudargade	Bhudargade	Bhudargade	Bhudargade	Bhudargade
2	8304	Dhavale Pratik Vijay	<del>Dhavale</del>	<del>Dhavale</del>	<del>Dhavale</del>	AB	<del>Dhavale</del>	<del>Dhavale</del>	AB	<del>Dhavale</del>
3	8305	GAIKWAD SANIKA BALASO	<del>Gaikwad</del>	<del>Gaikwad</del>	<del>Gaikwad</del>	<del>Gaikwad</del>	AB	<del>Gaikwad</del>	AB	AB
4	8306	GAWADE SHWETA SANJAY	Gawade	Gawade	Gawade	Gawade	Gawade	Gawade	Gawade	Gawade
5	8307	GHATAGE SHIVANI SHIVAJI	AB	AB	AB	AB	AB	<del>GH</del>	AB	<del>GH</del>
6	8308	GUDALE JYOTI RAJU	Gudale	Gudale	Gudale	Gudale	Gudale	Gudale	AB	Gudale
7	8309	Gurav Reva Sunil	<del>Gurav</del>	AB	AB	AB	AB	AB	AB	AB
8	8310	KARNE DIPALI RAMESH	<del>Karne</del>	<del>Karne</del>	<del>Karne</del>	<del>Karne</del>	<del>Karne</del>	<del>Karne</del>	AB	<del>Karne</del>
9	8311	KORGAONKAR SAKSHI SHIVRAJ	<del>Korgaonkar</del>	<del>Korgaonkar</del>	<del>Korgaonkar</del>	AB	AB	AB	AB	AB
10	8312	MALI ANJALI DEELIP	<del>Malali</del>	<del>Malali</del>	<del>Malali</del>	AB	<del>Malali</del>	<del>Malali</del>	<del>Malali</del>	<del>Malali</del>
11	8313	Mane Siddhi Bipinkumar	Siddhi	Siddhi	Siddhi	Siddhi	Siddhi	Siddhi	Siddhi	Siddhi
12	8314	metkari sourabh dadaso	Metkari	Metkari	Metkari	Metkari	Metkari	Metkari	Metkari	Metkari
13	8315	MOHITE SRUSTHI PANDHARINATH	MoHITE	MoHITE	MoHITE	MoHITE	MoHITE	MoHITE	AB	MoHITE
14	8316	MORE SHIVANI PANDURANG	More	More	More	More	More	More	More	More
15	8317	PARIT VAISHNAVI VISHWANATH	V.V. Parit	V.V. Parit	V.V. Parit	V.V. Parit	V.V. Parit	AB	V.V. Parit	V.V. Parit
16	8318	PATIL HARDIK DILIP	Patil	Patil	Patil	Patil	Patil	Patil	Patil	Patil
17	8319	PATIL NEHA SHARAD	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	AB	<del>Patil</del>

## Workshop on R - Programming Dt. 02.01.2024 to 10.01.2024

## Attendance Report

Sr No	Roll No	Name of The Students	02.01.2024	03.01.2024	04.01.2024	05.01.2024	06.01.2024	08.01.2024	09.01.2024	10.01.2024
18	8320	Patil Tejaswini Shahajirao	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	AB	AB	AB	<del>Patil</del>
19	8321	Patil Trupti Vijay	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	<del>Patil</del>	AB	<del>Patil</del>
20	8322	Rathi Shreya Sanjay	<del>Shreya</del>	<del>Shreya</del>	<del>Shreya</del>	<del>Shreya</del>	AB	<del>Shreya</del>	<del>Shreya</del>	<del>Shreya</del>
21	8323	SABNIS CHINMAYEE MANDAR	<del>Chinmayee</del>	<del>Chinmayee</del>	<del>Chinmayee</del>	<del>Chinmayee</del>	<del>Chinmayee</del>	<del>Chinmayee</del>	AB	<del>Chinmayee</del>
22	8324	SANKPAL NIKITA DHANAJI	<del>Nikita</del>	<del>Nikita</del>	<del>Nikita</del>	<del>Nikita</del>	<del>Nikita</del>	AB	<del>Nikita</del>	<del>Nikita</del>
23	8325	SATPUTE SAKSHI PANDURANG	<del>Sakshi</del>	<del>Sakshi</del>	<del>Sakshi</del>	<del>Sakshi</del>	AB	<del>Sakshi</del>	AB	AB
24	8326	SHINDE PALLAVI SAVANTA	AB	AB	AB	AB	AB	<del>Shinde</del>	<del>Shinde</del>	<del>Shinde</del>
25	8327	SHINDE SAI MAHESH	<del>Saideev</del>	<del>Saideev</del>	<del>Saideev</del>	<del>Saideev</del>	AB	<del>Saideev</del>	AB	<del>Saideev</del>
26	8328	SHINGARE SANSKRUTI SANJAY	<del>Sanskriti</del>	<del>Sanskriti</del>	<del>Sanskriti</del>	<del>Sanskriti</del>	<del>Sanskriti</del>	<del>Sanskriti</del>	AB	<del>Sanskriti</del>
27	8329	SHIPUGADE SHUBHAM SARJERAO	<del>Shipugade</del>	<del>Shipugade</del>	<del>Shipugade</del>	<del>Shipugade</del>	<del>Shipugade</del>	<del>Shipugade</del>	<del>Shipugade</del>	<del>Shipugade</del>
28	8330	SINGH SADHANA SANJAY	<del>Pringh</del>	<del>Pringh</del>	<del>Pringh</del>	<del>Pringh</del>	<del>Pringh</del>	<del>Pringh</del>	<del>Pringh</del>	<del>Pringh</del>
29	8331	SUTAR SANDESH ASHOK	①ASutar	①ASutar	①ASutar	①ASutar	①ASutar	①ASutar	①ASutar	AB
30	8473	JADHAV PRACHI SANJAY	AB	AB	<del>Prachi</del>	AB	AB	AB	AB	AB



“Education for Knowledge, Science and Culture”  
-Shikshahnmarshi Dr. Bapuji Salunkhe  
Shri Swami Vivekanand Shikshan Sanstha's  
VIVEKANAND COLLEGE, KOLHAPUR  
(EMPOWERED AUTONOMOUS)



DEPARTMENT OF STATISTICS  
One week workshop  
on  
“R- Programming”

- **Aim: To learn R software.**
- **Objectives:**
  1. To familiarize students with R software.
  2. To understand how to import and export the data by various data functions.
  3. To become able to manipulate data, running summary statistics, visualize data, analyze data and to interpret it.
- **Time & Date: 02<sup>nd</sup> January 2024 to 10<sup>th</sup> January 2024 (8.30 am)**
- **Venue:** Department of Statistics
- **Resource Person:** Mr. K.M. Mali, Assistant Professor Dept. of Statistics S.S.C.M Kolhapur.  
Mr. A.B. Bhosale, Mr. A.A. Pawar, Mr. A.S. Tangawade, Ms. R.S. Pandhare, Ms. R.M. Patil & Ms. A.K. Bhosale Assistant Professors  
Department of Statistics VCK.
- **Number of Students:** 30 (06 B+24 G)
- **Number of Teachers:** 08
- **Brief Description:**

The department of Statistics, Vivekanand College, Kolhapur conducted a “Workshop on R- Programming” from 02<sup>nd</sup> January 2024 to 10<sup>th</sup> January 2024. 30 students from B.Sc. III were participated in the workshop. After formal inauguration of workshop Mr. K.M. Mali explained What is R, how to download and install it. He covered basic commands regarding creation of vector, operators like logical, assignment.

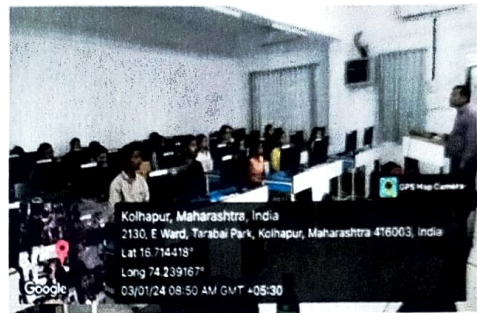
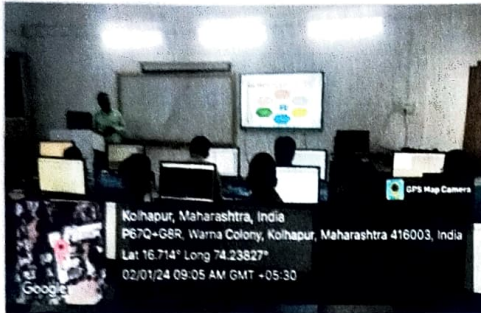
On 04<sup>th</sup> January Ms. Pandhare Rutuja explained creation of data frame, matrix manipulation and operations on matrix through examples. On the next day Ms. Patil Rutuja covered basic commands regarding data input output and various looping statements. On the fifth day Mr. Tangawade Atish covered Exploratory data analysis. On the next day Mr. Bhosale Ashok taught data visualization techniques and diagrammatic representation. On the seventh day Ms. Bhosale Aishwarya covered Graphical representation of data and random number generation. At the end of the workshop Mr. Pawar Ajit discussed and demonstrated installation of various packages. He also covered various tests such as t.test, wilcox.test, chisq.test, etc.

In the valedictory function students shared their opinions about the workshop and mentioned its usefulness. The vote of thanks presented by Mr. A. B. Bhosale.

• **Outcomes:**

After the completion of the workshop

- Students became able to, download and install R.
- They learned to install and load add-in packages
- They understood R data structures, import external data into R for data processing and statistical analysis.
- They became able to compute basic summary statistics and statistical analysis techniques.
- They learned data visualizations techniques with the ggplot package
- Students freely shared their opinions about the workshop and became happy for providing such a workshop.



*V. N. N. N.*  
Head  
**HEAD**  
DEPARTMENT OF STATISTICS  
VIVEKANAND COLLEGE, KOLHAPUR  
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