

# DEPARTMENT OF STATISTICS: ANNUAL REPORT 2022-23

The academic year 2022-23 of the department started with the commencement of classes for the I and III semester of the MSc programme. The department officially started the I semester of the MSc programme on 3<sup>rd</sup> January 2022 and the III semester of the MSc programme on 1<sup>st</sup> December 2021.

This annual report will provide an overview of the department's activities during the past year, including academic achievements, research accomplishments, and outreach efforts. This year we organized several programmes, including seminars, workshops, invited talks, exhibitions etc.

## I. STUDENT STRENGTH.

PROGRAMME	YEAR	STUDENT STRENGTH	Total
MSc Statistics	I Year	5	21
	II Year	16	
TOTAL STUDENTS			<b>21</b>

## II. UNIVERSITY EXAMINATION RESULTS

PROGRAMME	No of students attended the examination	No of students passed	Pass %
MSc Statistics	14	10	71.43%

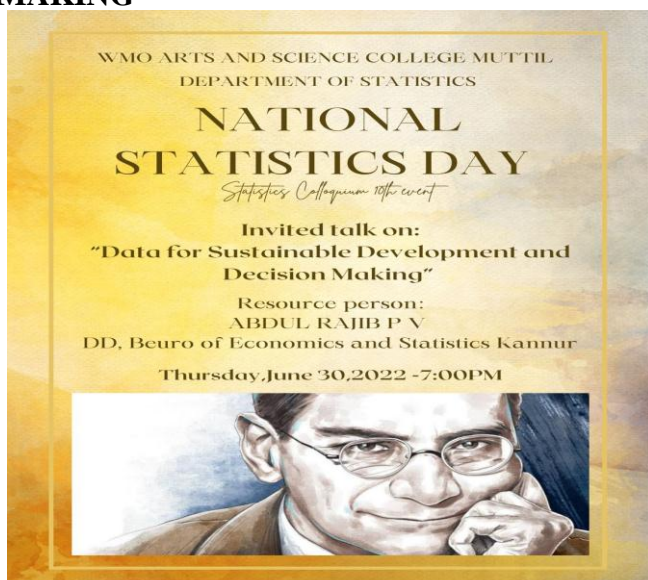
## III. NEW APPOINTMENTS.

Faculty member newly appointed in the department. The details are as under.

Sl.No:	Name	Designation	Remarks
1	Adeeba Farha Khalid	Assistant Professor	

## IV. DEPARTMENTAL ACTIVITIES.

### 1. COLLOQUIUM-DATA FOR SUSTAINABLE DEVELOPMENT AND DECISION MAKING



Statistics department conducted an online statistical colloquium on the topic “Data for sustainable development and decision making” on 30<sup>th</sup> June 2022. The session was handled by Abdul Rajib P V, DD, Beuro of Economics and Statistics, Kannur.

## 2. COLLOQUIUM-SPATIAL STATISTICS:SCOPE AND APPLICATIONS

WMO ARTS & SCIENCE COLLEGE  
Muttill,Wayanad,Kerala-673122  
www.wmocollege.ac.in      wmocollege@gmail.com

Department of Statistics

15th July  
2022

Statistical Colloquium

**"Spatial Statistics:  
scope and applications "**

*Dr. Sebastian*  
Head of the Dept.of Statistics  
University of Kannur

7.30 pm  
Online

Statistics department conducted an online statistical colloquium on the topic “Spatial statistics:scope and applications” on 15<sup>th</sup> July 2022. The session was handled by Dr.Sebastian George, Head of Dept.of Statistical Sciences, University of Kannur.

## 3. COLLOQUIUM-ARTIFICIAL INTELLIGENCE AND STATISTICS

WMO ARTS & SCIENCE COLLEGE  
Muttill,Wayanad,Kerala-673122  
www.wmocollege.ac.in      wmocollege@gmail.com

Department of Statistics

21st July  
2022

Statistical Colloquium

**"Statistics for Artificial Intelligence"**

*Prof.C.Raghavendra Rao*  
School of CIS  
University of Hyderabad

7.30 pm  
Online

Statistics department conducted an online statistical colloquium on the topic “Artificial Intelligence and Statistics” on 21<sup>st</sup> July 2022. The session was handled by Prof.C.Raghavendra Rao, School of CIS, University of Hyderabad.

## 4. COLLOQUIUM-APPLICATION OF ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING IN MEDICAL IMAGING



The Statistics department conducted an online statistical colloquium on the topic “Application of Artificial Intelligence and machine learning in medical imaging” on 13<sup>th</sup> August 2022. The session was handled by Dr.S.Mohan Kumar, Director, Research and Innovations, CMR University, Bangalore.

## 5. AZADI KA AMRIT MAHOTSAV PROGRAMMES-EXTEMPORE COMPETITION



Department of statistics conducted an extempore program on behalf of independence day on the topic “are we really independent?”. The program is five minutes presentation on their view about their Independence. The extempore is judged by the department faculties of Economics and Statistics

Muhammad Shaifer P, Raseena K and Nihala P. There were ten participants. Among them the



prizes were bagged by Raja Fathima-Department of electronics(PG-1<sup>st</sup> year), Sharadha-Department of mathematics(UG-2<sup>nd</sup> year), and Fasiha Gafoor-Department of physics(PG-2<sup>nd</sup> year)respectively.

### 6. AZADI KA AMRIT MAHOTSAV PROGRAMMES-THOUGHT SHARING



Department of Statistics in collaboration with Department of Economics conducted a thought sharing programme, “Mahatma Gandhi-message to modern youth” on 19<sup>th</sup> August 2022. Sri.E.M.Raveendran (Gandhian, Social worker, Philanthropist) was the moderator. Inagurated by Dr.T.P.Muhammed Fareed, Principal, WMO College. Followed by a book exhibition by the students in the college.

### 7. AZADI KA AMRIT MAHOTSAV PROGRAMMES-FACE PAINTING



Department of statistics conducted a face painting competition on the topic “Women in independent India”. Duration of the competition is one hour and students of various departments participated. The participants were six groups of two students each.The program was evaluated by the faculties of department of statistics and chemistry and economics Muhammad Shaifer P, Raseena K, Nihala P and Miss Shadin. The prizes were bagged by 1<sup>st</sup> prize for Fasiha Gafoor and Shana sherin of physics department, 2<sup>nd</sup> prize for

Haneena and Aleena Kurian of statistics department, and 3<sup>rd</sup> prize for Riswana Jasmin and Fathima Febin of electronics department.

### 8. INDUSTRIAL VISIT-IIM CALICUT AND CWRDM CALICUT

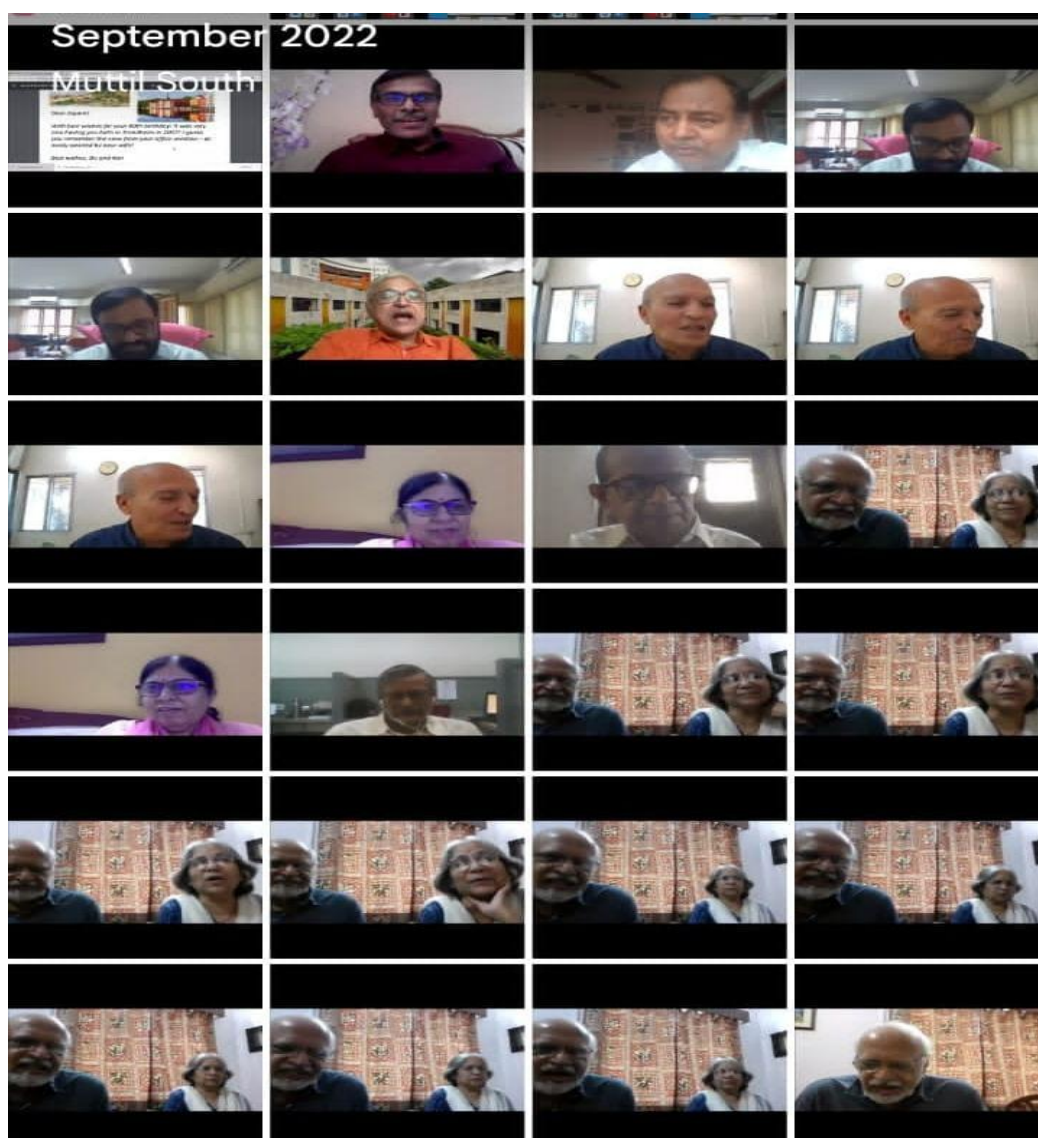




Department of statistics conducted an Industrial Visit in IIM and CWRDM Calicut on 30 August 2022. It was one day program. Twenty students and three faculties participated. The Industrial Visit started at 8.0 clock morning from college via traveller. The first visit to IIM Calicut, reached at the time of 10.30 am. IIM Calicut has arranged wonderful exhibition hall for the theoretical experience and Physics Presentation. Everyone enjoyed the exhibition hall with high enthusiasm about two hours. After the library visit everyone moved to CWRDM Calicut.

Centre for Water Resources Development and Management (CWRDM) is a premier R&D institution in the water resource sector established by the Government of Kerala. They welcomed the students and faculties to their institution and they helped us in knowing the clear vision of resources of water and the storage method that they are following. After the visit in CWRDM, everyone moved for having food and went to the Calicut Beach. After one and half hours of engagement in the beach headed back to college. Reached college by 9 pm.

## 9. INTERNATIONAL VIRTUAL GATHERING



Statistics Department conducted an International Virtual Gathering in honour of 80<sup>th</sup> birthday of Prof. Jayant V.Deshpande on September 22, 23 & 24, 2022. On first day after welcome session Debasis Sengupta(ISI Kolkata, India) presented a paper on “Retrospective Lifetime data with imperfection and opportunities”, Tuuli Kauppala(University of Helsinki, Finland) presented on the topic “Joint modelling of longitudinal height and weight data-prediction and application in childhood”, Madhuri Kulkarni(Savitribai Phule Pune University, India) presented on “Review of

progressive Hybrid-Censoring” and Divya Kappara(University of Hyderabad) presented a paper on “A novel measure of Spatial association”.

On second day after welcoming section Amarjot Kaur(MERCK, USA) presented a paper on “Statistical innovations and Role of Data Science in Drug Development”, P.N.Jouhara(Farook College,Kozhikode,India) presented a paper on “A Journey through some statistical concepts in psychological assessment”, E.P.Sreedevi(Maharajas College, Ernakulam, India) presented a paper on “Proportional Mean Model for panel count data with multiple modes of recurrence” and Santosh Sutar(YCSRD Shivaji University, India) presented a paper on “Modeling of Load sharing Phenomenon”.

On third day after welcoming section U V Naik Nimbalkar(Savitribai Phule Pune University, India) presented on the paper “Credit Risk Modelling”. The gathering ended by Prof.J.V.Deshpande’s talk on My life as a Statistician.

### 10. COLLOQUIUM- HEALTHCARE ANALYTICS



Department of Statistics

 **WMO ARTS & SCIENCE COLLEGE**  
Muttil, Wayanad, Kerala

*National level Statistics Colloquium*  
*"Healthcare Analytics"*


**Dr. Ramesh Athe**  
Assistant professor  
Dept. of Data Science and Intelligent Systems  
IIIT, Dharwad, MoE  
Karnataka



**google meet link :**  
<https://meet.google.com/eoq-nhij-mad>  
**Tuesday, 28<sup>th</sup> February 2023 : 7pm**  
**Meeting ID : eoq-nhij-mad**

The Statistics department conducted an online statistical colloquium on the topic “Healthcare Analytics” on 28<sup>th</sup> February 2023. Webinar was handled by Dr. Ramesh Athe (Assistant professor ,Dept. of Data Science and Intelligent Systems). Healthcare data analytics has become essential to modern healthcare practices due to a renewed focus on patient care and increased operational efficiency of healthcare organizations. Some of its benefits are : Providing detailed electronic health records, Supporting clinical treatment decisions, Delivering real-time alerts to healthcare providers ,Providing in-depth insight into a patient’s health and treatment ,Improving the speed and accuracy of identifying disease risk in patients ,Integrating data from devices such as fitness watches, cellphones, Providing efficient healthcare and reducing costs. Aim of this webinar is to give an idea of Healthcare Analytics to the students. The program was organized by faculty member of department of statistics. 30 Number of participants are attended This webinar was conducted in online.

## 11. COLLOQUIUM-SIMPLE INFERENCE FOR CONTINUOUS DATA



**WMO ARTS & SCIENCE COLLEGE**  
Muttill, Wayanad, Kerala  
Department of Statistics  
*National level Statistics Colloquium*

**"Simple Inference for Continuous Data"**



**Dr. E. I. Abdul Sathar**  
Professor  
Dept. of Statistics  
University of Kerala

google meet link :  
<https://meet.google.com/zat-ubbi-yqf>  
Tuesday, 14th March 2023 : 7pm  
Meeting ID : zat-ubbi-yqf


Invited Talk about Simple Inference for Continuous Data was Organized by Department of Statistics on 14<sup>th</sup> March 2023. The webinar was inaugurated by Dr. Mini T.C (Head-Center of Excellence of Statistical Research & Professor CMR University ,Bangalore). Webinar was handled by Dr. E.I. Abdul Sathar (Professor Dept.o Statistics -University of Kerala) Statistical inference is important in order to analyze data properly. Indeed, proper data analysis is necessary to interpret research results and to draw appropriate conclusions. Aim of this webinar is to give an idea of Simple Inference for Continuous Data . The program was organized by faculty member of department of statistics. 30 Number of participants are attended This webinar was conducted in online.

## 12. NATIONAL LEVEL SEMINAR


Dept. of Statistics  
Presents

# National Level Seminar

2023 March **20** Monday



**Machine learning and Career Prospects in Statistics**  
**Dr. T. P. Muhammed Fareed**  
[Principal , WMO Arts & Science College, Muttill]



**Introduction to Machine Learning**  
**Sri. Chandrashekar**  
[Visiting Faculty, Dept. of Statistics - WMO arts & Science College -]



WMO arts and science college, Muttill





Statistics Department conducted a National Level Seminar on 20<sup>th</sup> March 2023. The session on Machine learning & career prospects in Statistics was handled by Dr.T.P.Muhammed Fareed, Principal, WMO College. The next session on Introduction to Machine Learning was handled by Sri.Chandrashekar. Students from Farook College, Calicut also attended the seminar.

### 13. NATIONAL LEVEL WORKSHOP-TECHNICAL WRITING USING LATEX


Dept. of Statistics  
Presents

**National Level  
Workshop**

2023 March **28** Tuesday  
9.30 am

**Technical Writing  
Using LaTeX**

**Dr. K K Hamsa**  
[Associate Professor (Rtd.)  
Dept. of Statistics, Farook College]

 WMO arts and science college, Muttil



Statistics Department conducted a National Level Workshop on the topic “Technical writing using LaTeX” on 28<sup>th</sup> March 2023. The session was handled by Dr.KK.Hamsa, Visiting Professor,WMO College.


## 14. WORKSHOP ON R PROGRAMMING

Dept. of Statistics  
Presents


# R Workshop on Programming

2023 March 30 Thursday, 9.30 am

Session Lead by



**Dr. Raju N**  
[Former Professor & Visiting faculty  
Department of Statistics University of Calicut]



WMO arts and science college, Muttill





Statistics Department conducted a workshop on “R programming” on 30<sup>th</sup> March 2023. The session was handled by Dr.Raju N, Visiting Professor, WMO College.

### V. CERTIFICATE COURSES

- Certificate course on “Machine learning using Python” was given from 4<sup>th</sup> August 2022 to 26<sup>th</sup> August 2022. The course was handled by Mr.Chandrashekar. 14 students attended the course and were given certificates.





- Certificate course on “Advanced Programming in R” was given from 3<sup>rd</sup> October 2022 to 21<sup>st</sup> October 2022. The course was handled by Dr.Raju.N. 5 students attended the course.
- Certificate course on “Statistical tools using Excel” was given from 2<sup>nd</sup> January 2023 to 20<sup>th</sup> January 2023. The course was handled by Mr.Madhusoodhanan K. 5 students attended the course.

### **VI. BRIDGE COURSES**

- Preparatory courses in statistics and mathematics-Statistics Department introduced a bridge course on “Preparatory course in statistics and mathematics” for the first year students of MSc.statistics. This course was designed with the purpose of introducing the principles and basics of statistics and mathematics to the newly admitted students.
- R programming-Statistics Department conducted a bridge course on “R programming” for the first year students of MSc.Statistics. The course was designed to develop basic knowledge of R programming.

### **VII. PAPER/ POSTER/ INVITED TALKS BY FACULTY:**

- Raseena K gave a one day workshop on “Data Analysis using R” on 30<sup>th</sup> November 2022 at Pazhassiraja College, Pulpally.
- Mr.Madhusoodhanan K, HOD of Dept. of Statistics and Economics gave an invited talk on “Qualitative Research” at the one week FDP on “Research Methodology & Technical Writing Skills” and International Conference on “Recent Trends in Speech Processing, Signal Analysis and Acoustics”, from 24<sup>th</sup> to 30<sup>th</sup> April 2023, organized under the UGC STRIDE Institutional Major Research Project, WMO Arts and Science College, Muttill, Wayanad.

### **VIII. TEACHERS ATTENDED VARIOUS PROGRAMMES:**

- Mr.Madhusoodhanan K participated two days online training programme on “Patent Filing Requirements in India, Patent Specification and Search” on 13<sup>th</sup> to 14<sup>th</sup> October, 2022 conducted by Rajiv Gandhi National Institute of Intellectual Property Management (RGNIIPM), Nagpur.
- Mr.Madhusoodhanan K participated in the National Level Webinar on “Role of Research and Development in Technological Era” on 11<sup>th</sup> November 2022 organized by the CMR University, Bangalore.
- Mr.Madhusoodhanan K participated in the National Level Webinar on “Product and Prototype Development” on 8<sup>th</sup> December 2022 organized by the CMR University, Bangalore.
- Mr.Madhusoodhanan K participated in the National Level Webinar on “Importance of Publications, Patents and Citations Index of the Research Work & Factors for Improving Research Publications & Quality Metrics” on 9<sup>th</sup> December 2022 organized by the CMR University, Bangalore.
- Ms.Adeeba Farha Khalid participated in the National Level Webinar on “Role of Research and Development in Technological Era” on 11<sup>th</sup> November 2022 organized by the CMR University, Bangalore.
- Ms.Adeeba Farha Khalid participated in the National Level Webinar on “Statistics and Meta Analysis” on 18<sup>th</sup> November 2022 organized by the CMR University, Bangalore.
- Ms.Adeeba Farha Khalid participated in the National Level Webinar on “Product and Prototype Development” on 8<sup>th</sup> December 2022 organized by the CMR University, Bangalore.
- Ms.Adeeba Farha Khalid participated in the National Level Webinar on “Importance of Publications, Patents and Citations Index of the Research Work & Factors for Improving Research Publications & Quality Metrics” on 9<sup>th</sup> December 2022 organized by the CMR University, Bangalore.
- Ms.Adeeba Farha Khalid participated in the National Level Webinar on “Data Analytics using Knime” on 20<sup>th</sup> January 2023 organized by the CMR University, Bangalore.

- Ms.Adeeba Farha Khalid participated in the “Research Methodology Workshop on SPSS” on 16<sup>th</sup> February 2023 organized by the UGC STRIDE Scheme,WMO College, Muttill.
- Ms.Adeeba Farha Khalid participated in the National Level Webinar on “Big Data Analytics-2023” on 17<sup>th</sup> March 2023 organized by the CMR University, Bangalore.
- Ms.Raseena K participated in the National Level Webinar on “Role of Research and Development in Technological Era” on 11<sup>th</sup> November 2022 organized by the CMR University, Bangalore.
- Ms.Raseena K participated in the National Level Webinar on “Product and Prototype Development” on 8<sup>th</sup> December 2022 organized by the CMR University, Bangalore.
- Ms.Raseena K participated in the National Level Webinar on “Importance of Publications, Patents and Citations Index of the Research Work & Factors for Improving Research Publications & Quality Metrics” on 9<sup>th</sup> December 2022 organized by the CMR University, Bangalore.
- Ms.Nihala P participated in the National Level Webinar on “Role of Research and Development in Technological Era” on 11<sup>th</sup> November 2022 organized by the CMR University, Bangalore.
- Ms.Nihala P participated in the National Level Webinar on “Importance of Publications, Patents and Citations Index of the Research Work & Factors for Improving Research Publications & Quality Metrics” on 9<sup>th</sup> December 2022 organized by the CMR University, Bangalore.
- Ms.Nihala P participated in the National Level Webinar on “NEP Implementation in HEI” on 11<sup>th</sup> January 2023 organized by the CMR University, Bangalore.
- Ms.Nihala P participated in the National Level Webinar on “Introduction to Data Visualization” on 18<sup>th</sup> January 2023 organized by the CMR University, Bangalore.
- Ms.Nihala P participated in the “Research Methodology Workshop on SPSS” on 16<sup>th</sup> February 2023 organized by the UGC STRIDE Scheme,WMO College, Muttill.
- Ms.Nihala P participated in the one week FDP on “Research Methodology & Technical Writing Skills” and International Conference on “Recent Trends in Speech Processing, Signal Analysis and Acoustics”, from 24<sup>th</sup> to 30<sup>th</sup> April 2023, organized under the UGC STRIDE Institutional Major Research Project, WMO Arts and Science College, Muttill, Wayanad.

### IX. POSITIONS HELD BY FACULTY MEMBERS

- **Mr.Madhusoodhanan K** is the HOD of Department of Statistics & Economics.
- **Mr.Madhusoodhanan K** is the Warden of Boys Hostel of the college.
- **Mr.Madhusoodhanan K** is member of the Basic amenities cell of the college.
- **Mr.Madhusoodhanan K** is member of canteen committee.
- **Mr.Madhusoodhanan K** is member of green campus.

### X. BEST PRACTICES

- The Department conducted the Statistical Colloquium sessions on various topics using eminent personalities.
- Statistics Department conducted an International Virtual Gathering in honour of 80<sup>th</sup> birthday of Prof. Jayant V.Deshpande on September 22, 23 & 24, 2022. On first day after welcome session Debasis Sengupta(ISI Kolkata, India) presented a paper on “Retrospective Lifetime data with imperfection and opportunities”, Tuuli Kauppala(University of Helsinki, Finland) presented on the topic “Joint modelling of longitudinal height and weight data-prediction and application in childhood”, Madhuri Kulkarni(Savitribai Phule Pune University, India) presented on “Review of progressive Hybrid-Censoring” and Divya Kappara(University of Hyderabad) presented a paper on “A novel measure of Spatial association”.

On second day after welcoming section Amarjot Kaur(MERCK, USA) presented a paper on “Statistical innovations and Role of Data Science in Drug Development”, P.N.Jouhara(Farook College,Kozhikode,India) presented a paper on “A Journey through some statistical concepts in psychological assessment”, E.P.Sreedevi(Maharajas College, Ernakulam, India) presented a paper on “Proportional Mean Model for panel count data with multiple modes of recurrence” and Santosh Sutar(YCSRD Shivaji University, India) presented a paper on “Modeling of Load sharing Phenomenon”.

On third day after welcoming section U V Naik Nimbalkar(Savitribai Phule Pune University, India) presented on the paper “Credit Risk Modelling”. The gathering ended by Prof.J.V.Deshpande’s talk on My life as a Statistician.