5-day Workshop on
"Enhancing of Teaching and Learning Skills in Statistics"
Teaching Learning Centre,
Central University of Rajasthan, Bandarsindri,
12-16 March, 2019

Activity Undertaken	Objectives achieved/Details
5-day Workshop on "Enhancing of Teaching and Learning Skills in Statistics" No. of Participants - 33	The Training program was mostly for university teachers with limited participant's capacity across. These five days training program was attended by 33 participants from more than 30 different institutions of India. The participant were from various discipline including Statistics, Economics, Computer Science Commerce etc. In this training program, participant were exposed to describe and develop the basic concepts using day to day real life examples , To enhance the scope of Statistics as an Interdisciplinary , Data Analysis using statistical computing, To motivate the teachers for advances level reading and research etc. Speakers from premier institutes such as ISI Kolkata, ISI Delhi, IIM-A, BHU, University of Hyderabad, SPPU Pune, Kolhapur, NMIMS and CURaj, were invited to deliver lectures.

- **Patron**

  Prof. Arun K Pujari
  Hon'ble Vice Chancellor

- **Advisory Committee**

  Prof. R.N. Rattihalli
  Prof. Neeraj Gupta
  Prof. Manish Dev Shrimali
  Prof. D. C. Sharma
  Prof. J.K. Prajapat
  Dr. Manas Patra

- **Organizing Committee**

  Dr. Ajit Kumar Patra, Director TLC
  Dr. Umesh Gupta, Deputy Director TLC
  Dr. Jitendra Kumar, Dept. of Statistics
  Dr. Sanjay Kumar, Dept. of Statistics
  Dr. Mahendra Saha
  Dr. Arvind Pandey
  Dr. Abhimanyu Singh Yadav
  Dr. Malika Deb

- **Program Co-ordinator**
  Dr. Deepesh Bhati, Dept. of Statistics

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12-16 March, 2019

MHRD

ABOUT THE UNIVERSITY

The Central University of Rajasthan (CURaj) was established in 2009 by an Act of Parliament as a new Central University. CURaj offers 50+ Masters and Ph.D. programmes in its 21 departments. CURaj is ranked 34 by NIRF, the best among the universities established in 2009 or later and accredited 'A' grade by NAAC. CURaj has been granted more than 80 national/international research projects amounting more than 23 Crores. The area of the University campus is 550 (approx.) acres with all adequate infrastructure facilities. For more information visit www.curaj.ac.in .

ABOUT TLC

Teaching Learning Centre (TLC@CURaj) at Central University of Rajasthan was established in the year 2017-18 with a vision of support evidence based teaching and provides diverse opportunities for teachers. It is funded by MHRD, Govt. of India under the Scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT). It is envisaged to help teachers to modernize their teaching style, to scaffold concepts and information in a way that students can meaningfully take in, and to help students learn more deeply and retain what they have learnt. It is also meant to train teachers about the new and effective methods of teaching. In these directions, TLC@CURaj has successfully conducted several programs in recent past like (a) Ten Days Workshop on Teaching-Learning & Evaluation for Faculty Members of HEIs; (b) Induction Training Program for Faculty Members of HEIs; (c) Three Days Training Workshop on Effective Teaching/Learning Methods for Science Teachers of Schools and many more.

ABOUT WORKSHOP

The main objective of this workshop is to enhance the teaching and learning skills in statistics and data analytics for the College and University teachers with emphasis on the following

* To impart the training to formulate real world problems and find their statistical solutions.
* Use of audio/video material in Statistics for teaching and learning and to develop such audio and video aids.
* To enhance the scope of Statistics as an Interdisciplinary subject.
* To give an exposure to Data Science.
* Motivate the teachers for advances level reading and research.

TENTATIVE SPEAKERS

Prof. Arup Bose, ISI Kolkata

Prof. Ashis SenGupta, ISI Kolkata.

Prof. M.B. Rajarshi, SPPU, Pune

Prof. Sushama M. Bendre, ISI Delhi.

Prof. Tathagata Bandyopadhyay, IIM-A

Prof. S. K. Upadhyay, BHU.

Prof. Gyan Prakash Singh, BHU.

Prof. D. T. Shirke, Shivaji University, Kolhapur.

Prof. T.V. Ramanathan, SPPU, Pune.

Prof. Sharad D. Gore, Symbosis, SPPU, Pune.

Prof. Sunil Sitakant Shirvaiker, NMIMIS, Mumbai.

Prof. Someshwar Das, CURaj.

Dr. Hucum Chandra, IARI, Delhi.

Dr. Manas Patra, CURaj.

ELIGIBLE PARTICIPANTS

College and University Teachers teaching statistics and data analytics including those teaching in allied branches such as Engineering, Management, etc. Preference will be given for youngsters, research oriented and early applicants.

REGISTRATION AND FEES

For participation, registration form (attached) duly filled in has to be submitted together with registration fee of Rs. 500/-. Payment has to be made through online transfer mode (only) to the account, details given below. Registration fee will be refunded, in case the participant is not selected or on successful completion of participation.

BANK ACCOUNT DETAILS

Account Holder Name : CURAJ PMMMNMTT Fund
Name of the Bank : Bank of India
Bank Account Number : 666710110005558
Branch Code : 006667,   **IFSC Code :** BKID0006667   **MICR Code :** 305013027
Branch: Central University of Rajasthan, Bandarsindri,
     The.: Kishangarh, Dist.: Ajmer - 305801

ACCOMMODATION DETAILS

Accommodation will be provided on campus for the outstation participants. Breakfast/tea, lunch and dinner will be provided during the 5 days of the workshop. TLC@CURaj will reimburse the travel expenses (3-tier AC train or equivalent fare) to the outstation participants on production of valid tickets.

LAST DATE

Last date for online registration is 5 March, 2019. However, confirmation of participation will be communicated within a week or so from the date of receipt of his/her application.

COMMITTEE

Patron
Prof. Arun K. Pujari
Hon'ble Vice Chancellor

Advisory Committee

Prof. R. N. Rattihalli
Prof. Neeraj Gupta
Prof. Manish Dev Shrimali
Prof. J. K. Prajapat
Dr. Manas Patra

Programme Coordinator

Dr. Deepesh Bhati, Dept. of Statistics

Organizing Committee

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5-DAY WORKSHOP
on
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Date: 12-16 March 2019

MHRD

REGISTRATION FORM

Name (IN CAPITALS): _____

Age: _____ **Gender:** Male ☐ Female ☐ **Aadhar No.** _____

Designation: _____ Level Pay(as per 7CPC/Grade pay as per 6 Pay) _____

Department: _____ **University/Institute/College:** _____

Complete Address: _____

_____

E-mail: _____ Mobile: _____

Accommodation Required: Yes ☐ No ☐ Area of Specialization: _____

Teaching Experience: (in years) _____ Research Experience: (in years) _____

Payment Detail: Fee submitted YES ☐ No ☐ Bank Name: _____
UTR/Transaction No.: _____ Date: _____.

Place:

Date: Signature of the Applicant

Recommendation of the forwarding Authority

I have verified the above information given by the applicant and found correct as per our record. I recommend, Mr./Ms. _____for this workshop and he/she will be relieved on time to participate in this workshop, if selected.

Registrar/Head/Principal/Director

_____

Note: Duly filled in Registration Form may be sent through email to tlcprogram@curaj.ac.in with a copy to programe co-ordinator (deepesh.bhati@curaj.ac.in) for information. Incomplete registration form in any respect will not be considered. Participants will be informed about the programme through email. For more details please contact deepesh.bhati@curaj.ac.in.

Conducted by
Teaching Learning Center
Central University of Rajasthan

S. N.	Name of Speaker	Designation	Institutions	Discipline	Topic
	Eminent Speakers in 5-day Workshop on "Enhancing of Teaching and Learning Skills in Statistics" Teaching Learning Centre, Central University of Rajasthan, Bandarsindri, 12th-16th March, 2019				
1.	Prof. Arup Bose	Professor	ISI Kolkata	Statistics & Mathematics Unit	1.U-Statistics 2.M-Estimates 3.Resampling
2.	Prof. Ashis SenGupta	Professor	ISI Kolkata	Applied Statistics Unit	1. Introduction to Probability Distribution. 2. Multivariate measures and Methods.
3.	Prof. Sushama M. Bendre	Professor	ISI Delhi	Applied Statistics Unit	1.Statistical Modeling - Regression Analysis, Logistics and poisson Regression
4.	Prof. Tathagata Bandyopadhyay	Professor	IIM-A	Production and Quantitative Methods	1.Regression for what : Explanation and Prediction
5.	Prof. S. K. Upadhyay	Professor	BHU	Statistics	1.Bayesian Statistics
6.	Prof. Madhuchhanda Bhatacharya	Professor	University of Hyderabad	Statistics& Mathematics	1. PredictiveModeling with large data. 2. Data-exploration with large spatio-temporal data.
7.	Prof. Gyan Prakash Singh	Professor	BHU	Statistics	1. Measurement scale, type of variable, method of consending the data by basic graph 2. Data set to understand different type of correlations.
8.	Prof. D.T. Shirke	Professor	Shivaji University, Kolhapur	Statistics	1.PredictiveAnalytics using WEKA 2.Demo Lab Session
9.	Prof. T.V. Ramanathan	Professor	SPPU, Pune	Statistics	1. Big Data Analysis and Data Science I 2.Big Data Analysis and Data Science II
10.	Prof. Sunil Sitakant Shirvaiker	Professor	NMIMS, Mumbai	Statistics	1. Building Academic and Industry link 2. Application of Statistics in Industry
11.	Prof. Someshwar Das	Assistant Professor	Central University of Rajasthan	Statistics	1. Applications of Statistics to Atmospheric Science.
12.	Dr. Manas Patra	Assistant Professor	Central University of Rajasthan	Statistics	1.Applications of statistics to atmospheric science
13.	Prof. R.N. Rattihalli	Professor	Central University of Rajasthan	Statistics	

5-day Workshop on

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12-16 March, 2019

Timing	Day 1: 12-03-2019	Topic
10:00 AM -11:00 AM	Inaugural	
11:00 AM- 12:00 Noon	Prof. Ashis SenGupta, ISI Kolkata	Introduction to Probability Distribution.
12:00 Noon -01:00 PM	Prof. D.T. Shirke, Shivaji University, Kolhapur	Predictive Analytics using WEKA
01:00 PM -02:30 PM	LUNCH	
02:30 PM -4:00 PM	Prof. Ashis SenGupta, ISI Kolkata	Multivariate measures and Methods.
04:00 PM-04:30 PM	Tea Break	
04:30 PM -6:00 PM	Prof. D.T. Shirke, Shivaji University, Kolhapur (Hand-on session)	Predictive Analytics using WEKA

Day 1 Schedule

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Day 2 Schedule

Timing	Day 2: 13-03-2019	Topic
09:30 AM -11:00 AM	Prof. D.T. Shirke, Shivaji University, Kolhapur	Demo Lab Session
11:00 AM - 11:30 Noon	TEA Break	
11:30 AM -01:00 PM	Prof.Madhuchhanda Bhattacharjee, UoH	Predictive Modeling with large data
01:00 PM - 02:30 PM	LUNCH	
02:30 PM- 04:00 PM	Prof.Madhuchhanda Bhattacharjee, UoH	Data-exploration with large spatio-temporal data
04:00 PM-04:30 PM	Tea Break	
04:30 PM -6:00 PM	Tathagata Bandyopadhyay, IIM-A	Regression for what : Explanation and Prediction

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Day 3 Schedule

Timing	Day 3: 14-03-2019	Topic
09:30 AM -10:30 AM	Prof. T.V. Ramanathan, SPPU, Pune	Big Data Analysis and Data Science I
10:30 AM- 11:30 AM	Prof.TathagataBandyopadhyay	Regression for what : Explanation and Prediction
11:30 AM-12:00 Noon	TEA	
12:00 Noon-01:00 PM	Prof. T.V. Ramanathan, SPPU, Pune	Big Data Analysis and Data Science II
01:00 PM- 2:30 PM	Lunch	
02:30 PM-3:30 PM	Prof. Sunil S. Shirvaiker, NMIMS, Mumbai	Building Academic and Industry link
03:30 PM-04:30 PM	Lab Session	
04:30 PM-05:00 PM	Tea Break	
05:00 PM - 6:00 PM	Prof.Someshwar Das, CURaj	Applications of statistics to atmospheric science

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Day 4 Schedule

Timing	Day 4: 15-03-2019	Topic
09:30 AM -10:30 AM	Prof. Sunil S. Shirvaiker, NMIMS, Mumbai	Application of Statistics in Industry
10:30 AM - 11:30 Noon	Prof. Arup Bose, ISI Kolkata	U-Statistics
11:30 AM -12:00 Noon	TEA	
12:00 Noon-01:00 PM	Prof.Gyan Prakash Singh, BHU	Measurement scale,type of variable, method of consending the data by basic graph
01:00 PM - 02:30 PM	LUNCH	
02:30 PM- 03:30 PM	Prof.Sushma M. Bendre, ISI Delhi	Statistical modeling regression analysis, logistics, poisson regression
03:30 PM - 04:30 PM	Prof.Gyan Prakash Singh, BHU	Data set to understand different type of correlations
04:30 PM - 05:00 PM	TEA	
05:00 PM - 06:00 PM	Prof. Rattihalli, CURaj	

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Day 5 Schedule

Timing	Day 5: 16-03-2019	Topic
09:30 AM -10:30 AM	Prof. Arup Bose, ISI Kolkata	M-Estimates, Resampling
10:30 AM - 11:30 AM	Prof. S.K. Upadhyay, BHU	Statistical reference: Point estimation
11:30 AM - 12:00 PM	TEA	
12:00 Noon - 01:00 PM	Prof.Sushma M. Bendre, ISI Delhi	Statistical modeling regression analysis, logistics, poisson regression
01:00 PM - 02:30 PM	LUNCH	
02:30 PM- 03:30 PM	Prof. S.K. Upadhyay, BHU	Statistical reference: Point estimation
03:30 PM - 04:30 PM	Dr.Manas Patra, CURaj	
04:30 PM onwards	Valedictory	

PARTICIPANTS LIST

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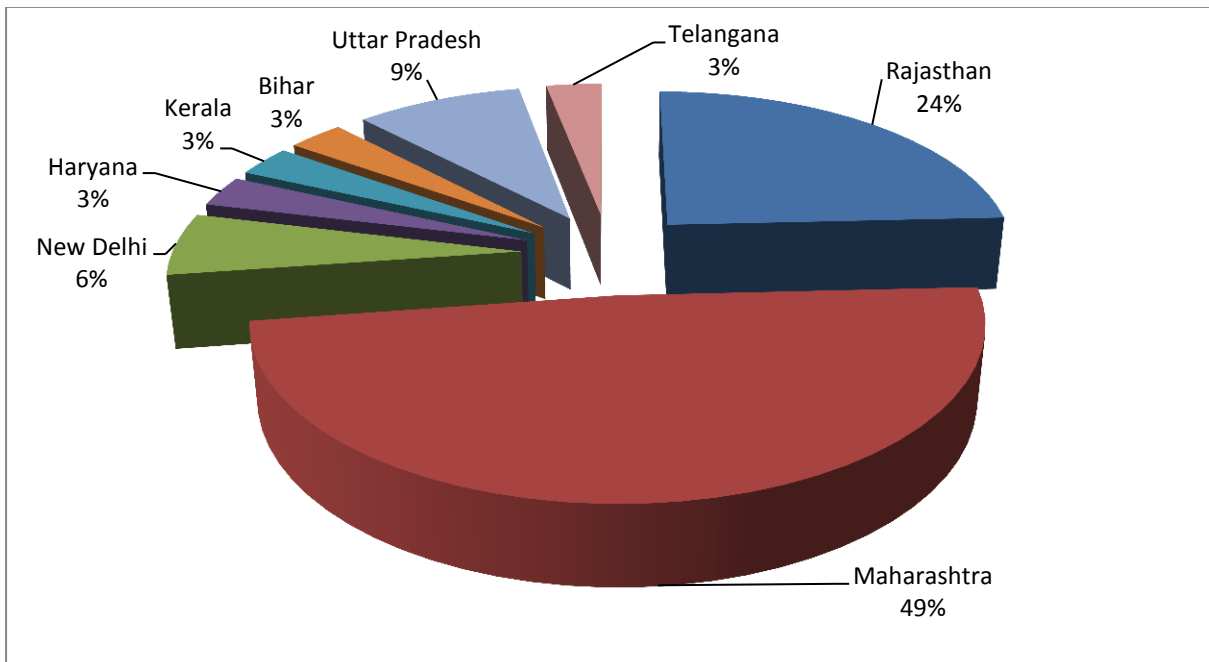| Sl. No	Name	Affiliation
1.	Dr. Sandeep Kumar Maurya	Banasthali Vidyapith
2.	Ms. Teena Goyal	Banasthali Vidyapith
3.	Dr. Vishal D. Pajankar	Ncert, New Delhi
4.	Pawar Varsha Vijayrao	Vivekanand College, Kolhapur
5.	Pedram Ganesh Trimbak	Z.B. Patil College, Dhule
6.	Agrawal Jagdish Chhotalal	Pratap College, Amalner, Dist - Jalgaon
7.	Jain Jivanlal Bansilal	PratapCollege, Amalner, Dist - Jalgaon
8.	Dr.Khadse Kailas Govinda	M.J. College, Jalgaon
9.	Dr.Santosh Shashikant Sutar	Yashwantrao Chavan School Of Rural Development
10	Mr.Shinde Mahadeo Ramchandra	Vasant dada Sugar Institute, Pune
11	Mr. Sukumar Vitthal Rajguru	Department Of Statistics, Shivaji University, Kolhapur
12	Dr. Chavan Narendra Shivaji	Z.B. Patil College, Dhule
13	Dr. Nandkishore Singh	Shkm Govt. Medical College, Nuh (Hr)
14	Mr. Maram Srinivas	Osmania University Hyderabad, Telangana
15	Dr. Amit Kumar Misra	Baba Saheb Bhimrao Ambedkar University, Lucknow
16	Dr. Awale Manik Shankar	Savitribai Phule Pune University, Pune
17	Dr. (Mrs.) Vaijayanti Ulhas Dixit	Mumbai University, Mumbai
18	Dr. Mohd. Arshad	Aligarh Muslim University
19	Ms. Anjali Singh	Department Of Statistics, University Of Lucknow, Lucknow
20	Ms. Namrata D. Nagwekar	K.J. Somaiya College Of Science & Commerce, Vidyavihar, Mumbai

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Sl. No	Name	Affiliation
21	Dr. Ashok Vithoba Dorugade	Y C Mahavidyalaya, Halkarni, Kolhapur
22	Mr. Dinesh Bhaidas Patil	S.P.D.M. College, Shirpur
23	Ms. Arati Avinash Kore	K.J. Somaiya College Of Science & Commerce, Vidyavihar, Mumbai
24	Dr. Manoj Chacko	University Of Kerala, Karyavattom
25	Dr. Sanjay Kumar Patel	Central University of Rajasthan
26	Mr. Mahesh Shivaji Barale	Vivekanand College, Kolhapur
27	Dr. Mukesh Kumar	Central University Of South Bihar, Gaya, Bihar
28	Dr. Mahendra Saha	Central University of Rajasthan
29	Dr. Satya Bhushan	N.cert, New Delhi
30	Dr. Sanjay Kumar	Central University of Rajasthan
31	Dr. Pragati Jain	Central University of Rajasthan
32	Dr. Vidyottama Jain	Central University of Rajasthan
33	Dr. A. Nagaraju	Central University of Rajasthan

State Wise Details of Participants:-

Sl. No.	State	Number of Participants
1	Rajasthan	8
2	Maharashtra	16
3	New Delhi	2
4	Haryana	1
5	Kerala	1
6	Bihar	1
7	Uttar Pradesh	3
8	Telangana	1
Total Numbers of Participants		**33**

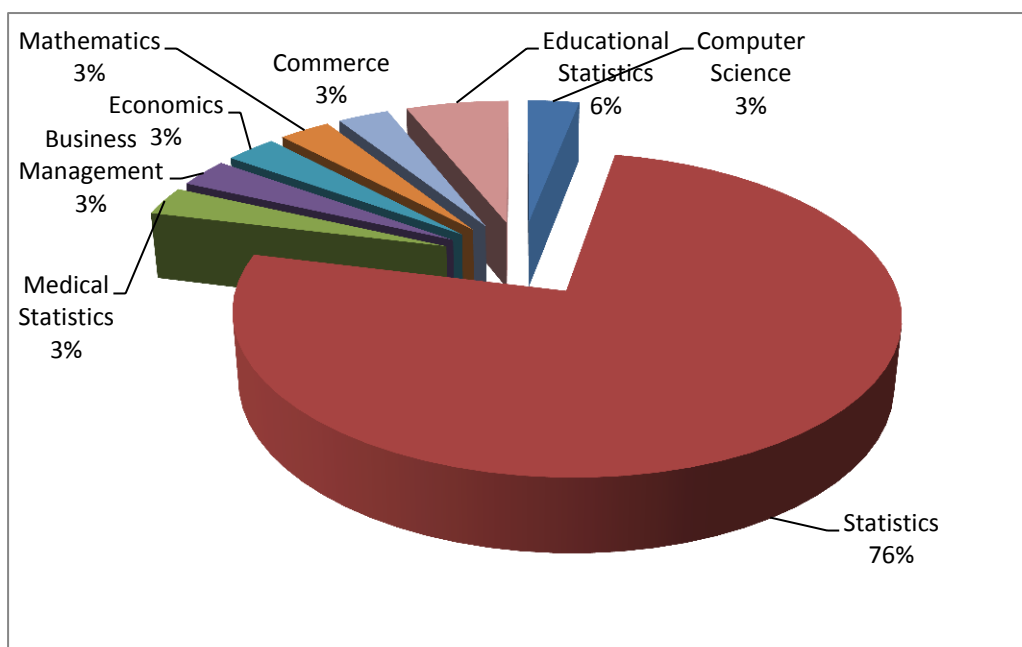## State wise details of the participants

Discipline Wise Details of Participants:-

Sl. No.	Discipline	Number of Participants
1.	Computer Science	1
2.	Statistics	25
3.	Medical Statistics	1
4.	Business Management	1
5.	Economics	1
6.	Mathematics	1
7.	Commerce	1
8.	Educational Statistics	2
Total Numbers of Participants		**33**

Discipline Wise Details of Participants:-

SOME MOMENTS OF WORKSHOP