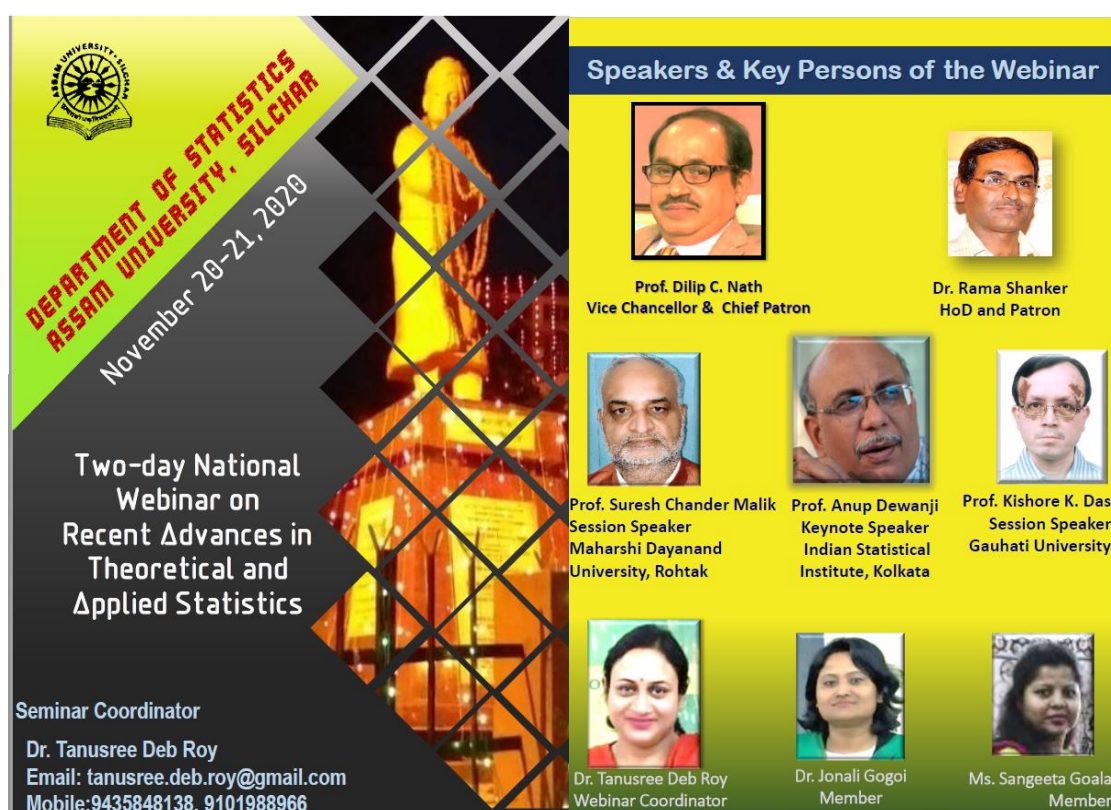


Report of the Two-day National Webinar on Recent Advances in Theoretical and Advance Statistics

The Department of Statistics, Assam University organized the two-day National webinar on Recent Advances in Theoretical and Advance Statistics on 20th and 21st November, 2020. Theoretical and applied statistics problems have always helped each other and later contributed towards the overall development of Statistical Science. The webinar aimed in bringing forth the recent advances in both the theoretical and applied fields of Statistics. The first and last page of the brochure of the National Webinar is included below.



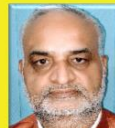







**DEPARTMENT OF STATISTICS
ASSAM UNIVERSITY, SILCHAR**
November 20-21, 2020

Two-day National Webinar on Recent Advances in Theoretical and Applied Statistics

Seminar Coordinator
Dr. Tanusree Deb Roy
Email: tanusree.deb.roy@gmail.com
Mobile: 9435848138, 9101988966

Speakers & Key Persons of the Webinar

 Prof. Dilip C. Nath Vice Chancellor & Chief Patron	 Dr. Rama Shanker HoD and Patron	
 Prof. Suresh Chander Malik Session Speaker Maharshi Dayanand University, Rohtak	 Prof. Anup Dewanji Keynote Speaker Indian Statistical Institute, Kolkata	 Prof. Kishore K. Das Session Speaker Gauhati University
 Dr. Tanusree Deb Roy Webinar Coordinator	 Dr. Jonali Gogoi Member	 Ms. Sangeeta Goala Member

In the webinar some of the renowned senior statisticians deliberated their research findings and also brought forth some of the emerging areas of research in both the theoretical and applied Statistics. The contributory sessions included presentation on recent findings and methods in both applied and theoretical statistics by researchers. The Event was conducted online in Google Meet. The registration for participating in the webinar was <https://forms.gle/roggScckGGpcGcp69>. The web link of the event for the two consecutive days are as follows:

(Day 1: 20-11-2020; 10.00AM to 11.10AM)

<https://meet.google.com/bkv-wtdv-avu>

Technical Session-I (Day 1: 20-11-2020; 11.30AM to 1.10PM)

<https://meet.google.com/ysv-pecq-epv>

Technical Session-II (Day 2: 21-11-2020; 10.00AM to 11.50AM)

<https://meet.google.com/nro-hobn-wre>

Technical Session-III (Day 2: 21-11-2020; 12.00PM to 2.00PM)

<https://meet.google.com/sze-igae-oqj>

Technical Session-IV (Day 2: 21-11-2020; 2.00PM to 3.30PM)

<https://meet.google.com/nsb-wmuc-hfc>

Technical Session-V (Day 2: 21-11-2020; 3.30PM to 5.00PM)

<https://meet.google.com/ecq-hepj-gth>

Valedictory Session (Day 2: 21-11-2020; 5.30PM to 5.45PM)

<https://meet.google.com/nxf-yyvm-zep>

The Detailed Schedule of the Webinar are as follows:

DAY 1: 20-11-2020

INAUGURAL SESSION

(10.00 AM -11.10 AM)

Time	Speaker	Topic of the Talk	Affiliation
10.00 – 10.05	Dr. Rama Shanker	Welcome Address	Head, Department of Statistics, AUS
10.05 – 10.15	Prof. D.C. Nath	Address from the Head of the Institution	Vice Chancellor, AUS
10.15 – 11.00	Prof. Anup Dewanji (Key Note Speaker)	Use of Additional Information for Current Status Data with Two Competing Risks and Missing Failure Types	Professor, Indian Statistical Institute, Kolkata
11.00– 11.05	Dr. Tanusree Deb Roy	Vote of Thanks	Assistant Professor, Department of Statistics, AUS

DAY 1: 20-11-2020
Technical Season – I
(Distribution Theory I)
Time: 11.30 AM-1.10 PM

Chairperson and Session Speaker: Prof. S.C. Malik, Head, Department of Statistics, Maharshi Dayanand University, Rohtak.

Topic of the Talk: Reliability Analysis of Systems with Different Configurations

Invited Speaker: Dr. Sourav Rana, Department of Statistics, Visva Bharati University
Topic of the Talk: A statistical approach to detect the important controlling factors of COVID-19 outbreak based on a mathematical framework.

Contributory Papers of the Session

Sl. No.	Paper Title	Presenting Author
1	Extended alpha power transformation	PINKY ROY Dibrugarh University
2	A Weighted Poisson Distribution and Its Application	DEEPAK KUMAR MAURYA Banaras Hindu University
3	An Induced-Weibull Distribution and its application on Engineering Science	UTPAL DHAR DAS Banaras Hindu University
4	Inverse Weighted Nakagami Distribution	SAURAV SARMA Gauhati University

Time Duration of each talk: Session Speaker: 25 minutes

Invited Speaker: 15 minutes **Presenting Author (Contributory Papers):** 10 minutes

Session Rapporteur:: Mr. Manish Pandey

DAY 2: 21-11-2020
Technical Season – II
(Distribution Theory II)
Time 10.00 AM - 11.50 AM

Chairperson and Session Speaker: Prof. Kishore Kumar Das, Head, Department of Statistics, Gauhati University, Guwahati

Topic of the Talk: The Use of Urn Models in Probabilistic Problems

Invited Speaker: Dr. Sahana Bhattacharjee, Department of Statistics, Gauhati University, Guwahati.

Topic of the Talk: Circular Statistics: A brief introduction and application

Contributory Papers of the Session

Sl. No.	Paper Title	Presenting Author
1	A study on some aspects of cubic transmuted exponential distribution	IMLIYANGBA NEHU, Shillong
2	Record Statistics of Two Parameter Frechet Distribution and its Properties	MANISH KUMAR PANDEY Assam University
3	Alpha power modified Weibull Distribution with properties and application	SEEMA CHETTRI NEHU, Shillong
4	Weighted Mixed Exponential and Rayleigh Distribution	SATABDI DUTTA Assam University
5	A New Weighted Three parameter Lindley Distribution: It's properties and applications	PURBITA SAHA Assam University

Time Duration of each talk:: Session Speaker: 25 minutes

Invited Speaker: 15 minutes Presenting Author (Contributory Papers): 10 minutes

Session Rapporteur:: Ms. Umme Habibah Rahman

DAY 2: 21-11-2020

Technical Season – III

(Applied Statistics)

Time: 12.00 PM-2.00 PM

Chairperson and Invited Speaker: Dr S. K. Jha, Department of Statistics, NEHU, Shillong.

Topic of the Talk: Spatial Data Analysis: with special reference to data on an irregular lattice

Invited speaker: Dr. Bhanita Das, Department of Statistics, NEHU, Shillong.

Topic of the Talk: Generation of New Probability Distributions Using Transmutation Maps with Application

Contributory Papers of the Session

Sl. No.	Paper Title	Presenting Author
1	Fitting of Modified Exponential Model between Rainfall and Ground Water Levels by using Partial sums method: A case study	RAJU SAKE Sri Krishnadevaraya University Anantapuramu
2	A study on Maternal Health Care Status in India	SANGEETA GOALA Assam University
3	Forecasting and modelling of Covid-19 in India	UMME HABIBAH RAHMAN Assam University
4	An Artificial Neural Network (ANN) Based Forecasting of Covid19 Pandemic Cases of Assam.	DHRUBAJYOTI LAHON NEHU, Shillong
5	A comparative study on the recent trend of pineapple production in Manipur	CHANGAMAYUM GIRIJA DEVI

		Manipur University
6	Clustered based analysis and forecasting of covid-19 cases in NE India using LSTM	KHURAIJAM SHITILE KUMAR Manipur University
7	District Wise Analysis of Infant Mortality Rate in Assam	GITANJALI PRADHANI Assam University

Time Duration of each talk:: Session Speaker:25 minutes, Invited Speaker: 15 minutes, Presenting Author (Contributory Papers):: 9 minutes

Session Rapporteur:: Mr. Santanu Choudhury

DAY 2: 21-11-2020

**Technical Season – IV
(Data Analytics/Mining)
Time: 2.00 PM- 3.30 PM**

Chairperson and Invited Speaker: Prof. Brijesh P. Singh, Banaras Hindu University, Varanasi.
Topic of the Talk: Use of Parametric Regression Analysis to Understand the Dynamics of Age at Sexual Initiation in Uttar Pradesh

Contributory Papers of the Session

Sl No.	Paper Title	Presenting Author
1	Comparison of Modeling Techniques to study undernutrition among under-five children in Uttar Pradesh	SHAMBHAVI MISHRA University of Lucknow, Lucknow, UP, India
2	Quantification of Agreement Level amongst the Number of Scale Points of an Impulsive Buying Behavior Scale	SANTANU CHOUDHURY Gurucharan College, Silchar, Assam
3	Application of Circular Statistics to Identify the Seasonal Impact on the Demand of Silk Yarn of Sualkuchi Silk Industries	DEBTOSH CHAKRABORTY Srikisha Sarda College, Hailakandi
4	Identifying the Death Over Skills of Bowlers in Twenty 20 Cricket	PRIYANKA TALUKDAR, Assam University
5	Cricket, Machine Learning and Fantasy League	BIRESHWAR BHATTACHARJEE Assam University
6	Classification of bank customers using K nearest neighbors	INAOBI ELANGBAM Manipur University

Time Duration of each talk:: Session Speaker:25 minutes, Invited Speaker: 15 minutes, Presenting Author (Contributory Papers): 9 minutes

Session Rapporteur:: Mr. Mrinak Deka

DAY 2: 21-11-2020

Technical Season – V

(Statistical Methods)

Time: 3.30 PM -5.00 PM

Chairperson: Dr. Rama Shanker, Department of Statistics, Assam University, Silchar

Contributory Papers of the Session

Sl No.	Paper Title	Presenting Author
1	Optimal Designs for Beta Regression Model	ASHOK KUMAR University of Lucknow, Lucknow
2	Size-Biased Probability Models for Adult Out Migration Pattern	SANDEEP SINGH Banaras Hindu University
3	Statistical challenge in planning of Non-Inferiority studies	ANADYA PRAKASH TRIPATHI Assam University
4	A Case Based Study on the Implementation of National Health Schemes on Treatment Techniques of Cancer	MRINAL DEKA Assam University
5	Path analysis and visual outcome of corneal transplant in North East India	PUSHPITA DAS Assam University
6	Quantification of Brain Dysfunction in elderly population with Wisconsin Card Sorting Test	DEBOPAMA BHATTACHARYA Assam University
7	Prevalence of Heart Disease among the Women at Reproductive Age Group: Analytic Study	ADITI CHAKRABORTY Evelyn Learning
8	Symbolic Data Analysis vs Classical Data Analysis: A Comparative Study	DIPANKA BORA

Time Duration of each talk:: Presenting Author (Contributory Papers): 9 minutes

Session Rapporteur:: Ms. Priyanka Talukdar

DAY 2: 21-11-2020

Valedictory Session

(5.30 PM to 5.45 PM)

Time	Speaker	Topic of the Talk	Affiliation
5.30 – 5.35	Participants Comments		
5.35 – 5.40	Dr. Rama Shanker		Head, Department of Statistics, AUS
5.40-5.45	Dr. Jonali Gogoi	Vote of thanks	Assistant Professor, Department of Statistics, AUS

The registration fee of the National Webinar was Rs.500/- for Teachers and Professionals and for Research Scholars & PG Students fee was Rs. 300/- . For the advance students of the Department of Statistics, Assam University, Silchar the registration was free of cost. The sub-theme of the webinar was distribution theory, reliability, operation research, econometrics, data mining/analytics in sports, industry, etc., time series, design of experiments, any other. In the webinar forty two participants registered from all over India. The participants included Assistant Professors from Universities and Colleges, Research Scholars, Passed out PG Students and also students who are persuing their Masters in Statistics. Thirty participants registered for presenting contributory papers in the webinar.

As scheduled the event started at 10 AM on 20th November, 2020 with a welcome address by the Head of the Department of Statistics, Assam University Dr. Rama Shanker. After the welcome address Prof. Dilip C Nath, Vice Chancellor of the University. Prof. Nath, delivered speech on the importance of the organization of the event specific to the theme. The Keynote speaker of the National Webinar was Prof. Anup Dewanji, Professor, ISI, Kolkata. Prof. Dewanji, delivered talk on “Use of Additional Information for Current Status Data with Two Competing Risks and Missing Failure Types”. The session ended with the vote of thanks by the coordinator of the webinar Dr. Tanusree Deb Roy, Assistant Professor, Department of Statistics, Assam University, Silchar.

First Technical Session started at 11:30 AM on the 20th of November, 2020. In this session there was a talk from a Session Speaker and one Invited Speaker. Prof. S.C. Malik, Head, Department of Statistics, Maharshi Dayanand University, Rohtak was the session speaker of the session. His topic of talk was on “Reliability Analysis of Systems with Different Configurations”. After Prof. Malik’s talk the session was chaired by him. The invited speaker in this session was Dr. Sourav Rana, Department of Statistics, Visva Bharati University. Dr. Rana’s talk on “A statistical approach to detect the important controlling factors of COVID-19 outbreak based on a mathematical framework”. The session continued with the presentations of the contributory papers. There was four contributory paper all from distribution theory. The session ended with the thanks giving to the chairperson, invited speaker and the presenters of the contributory papers.

On 21st November, 2020 the second Technical session of the Webinar began at around 10:00Am. Prof. Kishore Kumar Das, Head, Department of Statistics, Gauhati University, Guwahati was the

session speaker of the session. Prof. Das talk was on “The Use of Urn Models in Probabilistic Problems”. The session was chaired by Prof. Das. The invited speaker in this session was Dr. Sahana Bhattacharjee, Assistant Professor, Department of Statistics, Gauhati University, Guwahati. Dr. Bhattacharjee’s talk was on “Circular Statistics: A brief introduction and application”. There was five contributory paper in the session all from distribution theory. The session can to an end with the thanks giving to the chairperson, invited speaker and the presenters of the contributory papers.

Third Technical Session started at 12:00 PM on the same day. In this session there was talk from two Invited Speaker. Dr S. K. Jha, Department of Statistics, NEHU, Shillong. Dr. Jha’s topic of talk was on “Spatial Data Analysis: with special reference to data on an irregular lattice”. After Dr. Jha’s talk the session was chaired by him. The invited speaker in this session was Dr. Bhanita Das, Assistant Professor, Department of Statistics, NEHU, Shillong. Dr. Das talked on “Generation of New Probability Distributions Using Transmutation Maps with Application”. The session continued with the presentations of the contributory papers. There was seven contributory paper all from applied statistics. Six of them presented their papers. The session ended with the thanks giving to the invited speakers and the presenters of the contributory papers.

On 21st November, 2020 the fourth Technical session of the Webinar began at around 2:00PM. Prof. Brijesh P. Singh, Banaras Hindu University, Varanasi was the Invited speaker of the session. Prof. Singh talked on “Temporal Variation of Unsafe Pregnancy in India: An Index based Analysis”. Prof. Singh chaired the session after his deliberation. The papers were presented based on the Data Analytics/Mining theme. There was six contributory paper in the session five of them presented. The session came to an end with the thanks giving to the invited speaker and the presenters of the contributory papers.

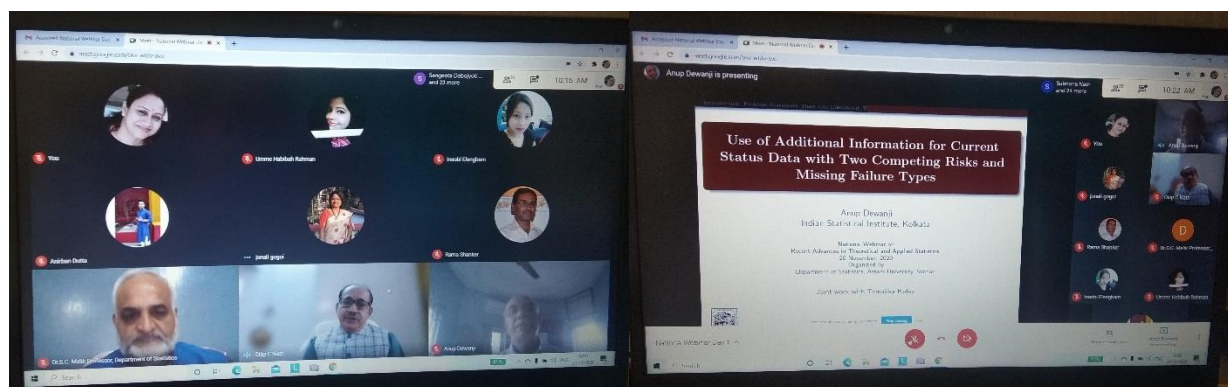
Fifth Technical Session which was the last Technical Session of the Webinar started at 3:30 PM on the same day. Dr. Ram Shanker, Head, Department of Statistics, Assam University, Silchar Chairperson of the Session. In this session there was eight contributory papers. Six of them presented their based on the theme statistical methods. After the paper presentations the session ended with the thanks giving to the Chairperson and the presenters of the contributory papers.

The Valedictory Session of the Webinar started at 5:30 PM on the 21st of November, 2020. Prof. Brijesh P. Singh of Banaras Hindu University, Varanasi expressed his satisfaction over the organization of the event. Prof. Singh said that the theme of the webinar very well reflected in the topics of the presentations presented by the speakers. Dr. Sahana Bhattacharjee, Assistant Professor, Department of Statistics, Gauhati University was also present during the valedictory session. Dr. Bhattacharjee conveyed such platform facilitates everyone to enhance ones knowledge with the new advances in the field of Statistics. The participants also expressed their opinions in the valedictory session. They expressed that they could gain knowledge from the lectures of the speakers who delivered their lectures in the webinar. The Valedictory speech was given by Dr. Rama Shanker, Head, Department of Statistics, Assam University, Silchar. Sir thanked one and all who contributed towards the successful completion of the webinar. Prof. Dibyojyoti Bhattacharjee, Faculty member from Department of Statistics, Assam University, Silchar thanked the participant for participating in the webinar who have successfully contributed towards the successful running of the program. Finally the valedictory session came to an end with the vote of thanks given by Dr. Jonali Gogoi, Assistant Professor, Department of Statistics, Assam University, Silchar

Some screenshot of the event are provided below.

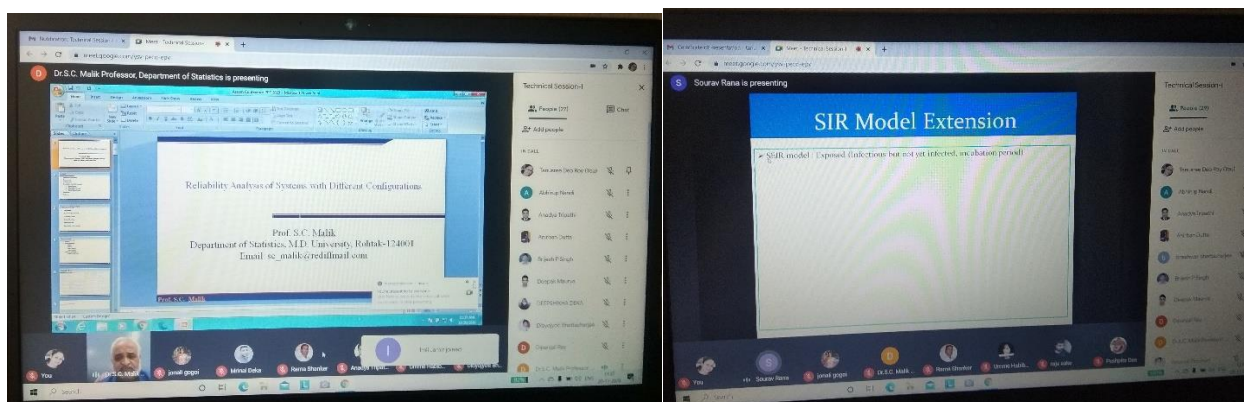
Prof. D. C. Nath delivering during the Inaugural Session

Prof. Anup Dewanji addressing as Keynote Speaker

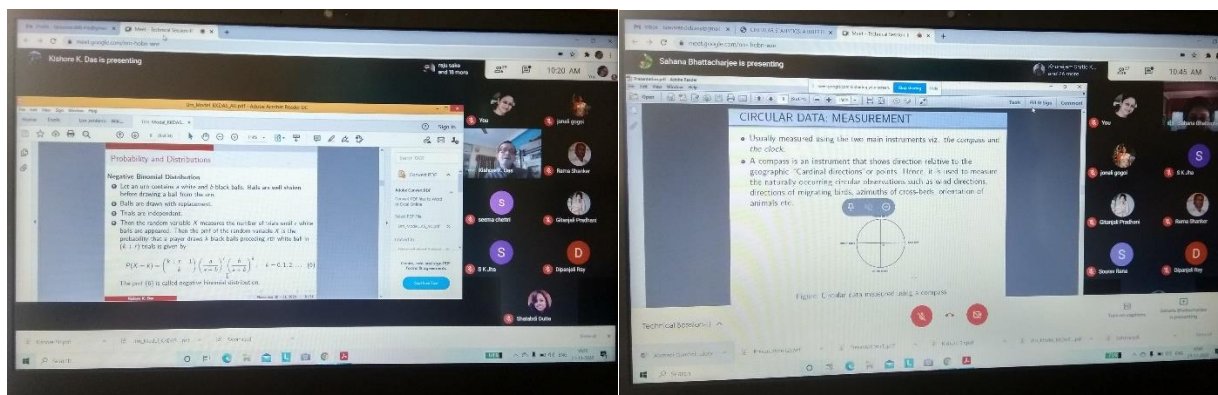


Prof. S.C Malik addressing as Session Speaker

Dr. Sourav Rana addressing as Invited Speaker

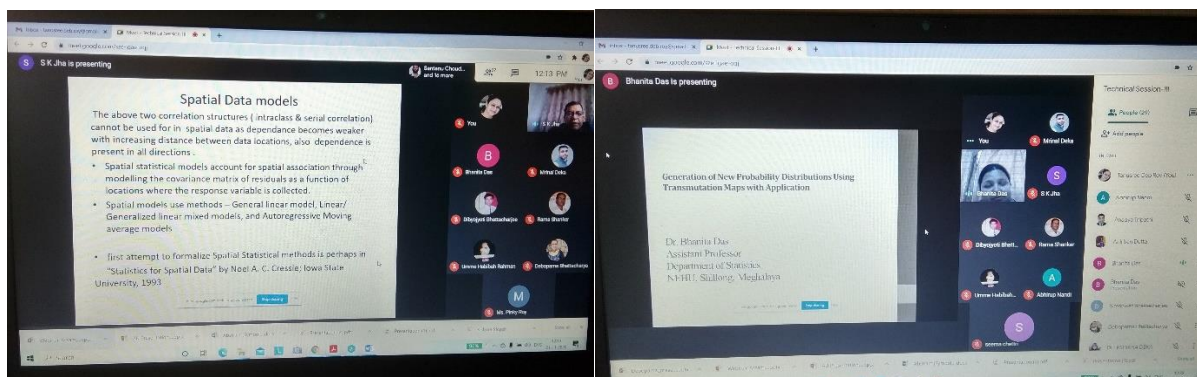


Prof. Kishore K. Das addressing as Session Speaker Dr. Sahana Bhattacharjee as addressing as Invited Speaker



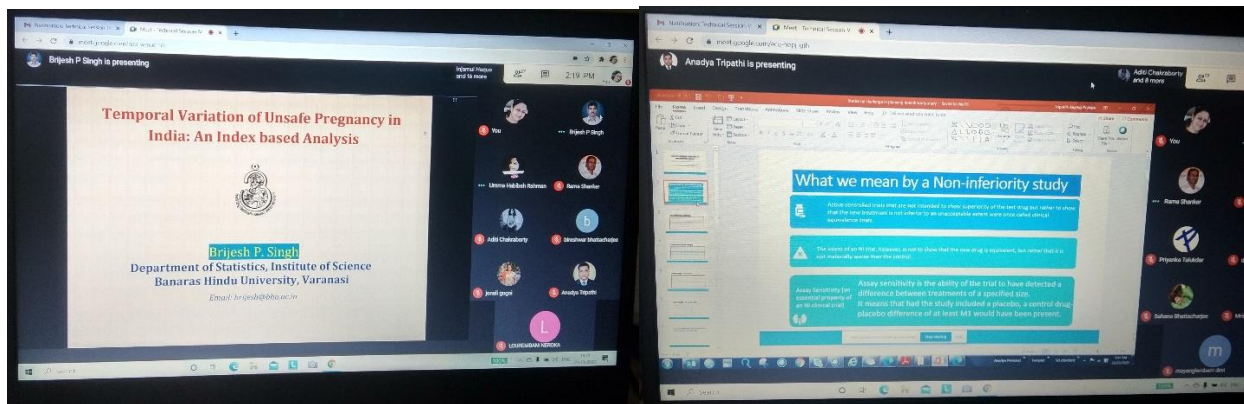
Dr. S. K. Jha addressing as Invited Speaker

Dr. Bhanita Das addressing as Invited Speaker



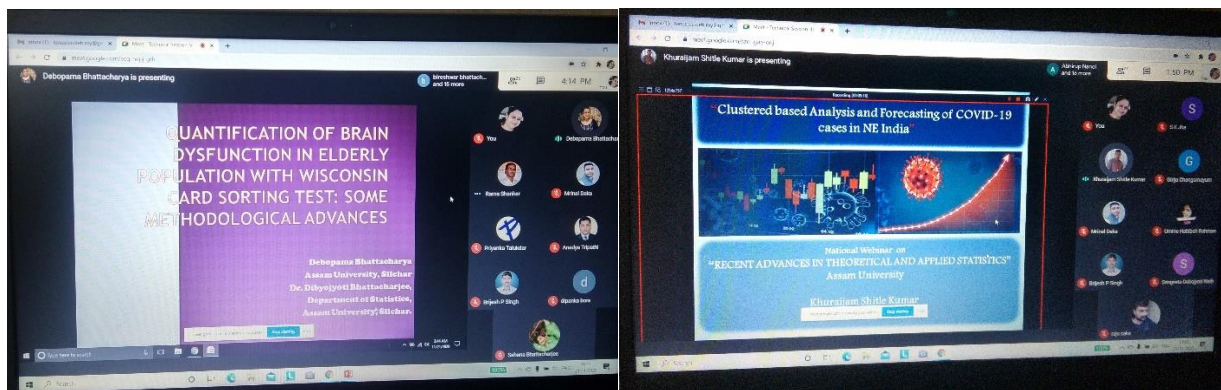
Prof. Brijesh P. Singh addressing as Invited Speaker

Mr. Anadya tripathi presenting contributory paper



Ms. Debopama Bhattacharya presenting contributory paper

Mr. Khurajam Shitle Kumar presenting contributory paper



Ms. Aditi Chakraborty presenting contributory paper Ms. Priyanka Talukdar presenting contributory paper

