

## **Report of the Seven-Day National Workshop on “Application of Statistics in Social Science Research”**

The Department of Statistics in collaboration with the Internal Quality Assurance Cell (IQAC), Shillong College organised a Seven-Day National Workshop on “Application of Statistics in Social Science Research” held from 13<sup>th</sup> to 19<sup>th</sup> July, 2022. The workshop was sponsored by the Government of Meghalaya, Office of the Deputy Commissioner, Shillong under Voluntary Action Fund (VAF) 2016-17. All technical sessions for the said workshop were held in the College Conference Hall during 09:30 A.M to 04:00 P.M. The total number of participants who attended the workshop were fifty one including Faculty, Librarian, Research Scholars and students from Colleges and Universities from within and outside the State.

The objective of this workshop was to build capacities on:

- (i) Basic Statistics and its application in Social Science Research,
- (ii) Framing and designing the questionnaires/schedules and introduction to The Census and Survey Processing System (CSPPro) package;
- (iii) Statistical Analysis (Descriptive statistics and Multivariate analysis) using Statistical Package for the Social Science (SPSS).

The Resource Persons for the workshop were from different fields of expertise with good statistical knowledge and proficient practical applications of Statistical Methods in Social Science Research. For the technical sessions, the Resource Persons were;

- (i) Dr. S K Jha, Associate Professor and Head, Department of Statistics, North Eastern Hill University, Shillong
- (ii) Dr. M Maring, Monitoring and Evaluation Expert, IQVIA, India
- (iii) Prof. A Choudhury, Professor, Department of Statistics. Gauhati University, Assam

The Seven - Day National Workshop took off on a high note on the 13<sup>th</sup> of July, 2022 with the Inaugural session at 10:00 A.M. in the Conference Hall of the College; whereby the students of Statistics Department welcomed the dignitaries and everyone present with a heart-warming traditional welcome song. The Head, Department of Statistics and Coordinator of the National Workshop – Shri. D.M.Syiem delivered the welcome address followed by a brief introduction to the Workshop by Shri. D R Mawkhlieng, Convener of the National Workshop.

In her speech, the Principal of Shillong College, Dr. (Mrs.) E Kharkongor spoke about the increasing relevance of Statistics in research findings for teachers and students in the light of the New Education Policy, 2020 which prioritizes research. She stressed on the importance of Statistics and encouraged the participants to attain key Statistical knowledge and develop technical skill for Research endeavour. She also expressed that familiarizing oneself with the basic Statistical concepts, tools and methodologies has become a necessity.

In a thought provoking and equally interesting Keynote Address, the Guest of Honour, Dr. S K Jha Head, Department of Statistics, North Eastern Hill University, Shillong brought into reference the analytical

methods of two seminal scientists of the world - Newton and Einstein. He narrated the history of creation of the universe 'what we know and how we came to know'. He elucidated on how Newton perfected the art of explaining things in the paradigm of deductive reasoning, thus leading the way forward for future scientists. Scientific theories and concepts were brought into reference for explaining the birth of Statistics in and for research findings.

The Inaugural Programme concluded with a Vote of Thanks from Shri. K D Roy, Vice-Principal of Shillong College. In his address he also highlighted that the day was an auspicious one as it was *Guru-Purnima* or Teachers Day according to the Hindu Almanac.

This National Workshop had thirteen Technical Sessions in all and the details of each technical session are as follows;

- On the 13<sup>th</sup> of July, 2022; the 1<sup>st</sup> and 2<sup>nd</sup> Technical Sessions took place with Dr. S K Jha, Associate Professor and Head, Department of Statistics, North Eastern Hill University, Shillong as the Resource Person.
  - ✧ In the 1<sup>st</sup> technical session; Dr. Jha presented and delivered basic concepts in research and Statistics. He gave a detail explanation using different theories relevant to Social Science. Different sources of data and the types of data were also looked upon in his presentation.
  - ✧ In the 2<sup>nd</sup> technical session; the different types of measurement of scale, nature of data and variables in Statistics had been highlighted by the Resource Person. He also pointed out on how to handle different types of data used in Social Science research and also explained the appropriate Statistical tools and methods in dealing with these data. Important concepts and understanding in the different Statistical methods like descriptive statistics, association of attributes, statistical tests etc. were delivered. The strengths, weaknesses, merits and demerits of the various statistical methods were also explained.
- On the 15<sup>th</sup> of July, 2022; in the 3<sup>rd</sup>, 4<sup>th</sup> and 5<sup>th</sup> Technical Sessions Dr. M Maring, Monitoring and Evaluation Expert, IQVIA, India was the Resource Person.
  - ✧ In technical session 3; Dr. Maring began his session with the topic "Survey Research". He explained the meaning of survey research as a field study and a collection of information from a predetermined sample. He highlighted the key points to keep in mind while doing a survey research in order to ensure effectiveness and efficiency. He stressed on having clear objectives while making the survey design and explained the methods of survey research. He concluded the session with a discussion on the challenges which are likely to be encountered by the researcher.
  - ✧ In technical session 4; Dr. Maring gave a theoretical presentation about social science research and introduced its objective which are development of knowledge, scientific study of social life, welfare of humanity, etc. He stressed on the importance of data in social science research and briefly explained the different types of data in social science research. He pointed out the importance of data collection, sources of data and the methods of data collection. The resource person detailed on the preparation of

questionnaire, schedule, designing and also highlighted on the disadvantages of using questionnaire method for data collection.

- ✧ In technical session 5; the participants were introduced to the Census and Survey Processing System (CSPRO) package. Dr. Maring led the participants to a hands-on learning experience in using the CSPro by using real life data. Data collection, data entry and data processing using this packaged were also covered in this technical session.
- On the 16<sup>th</sup> of July, 2022; in the 6<sup>th</sup>, 7<sup>th</sup> and 8<sup>th</sup> Technical Sessions Dr. M Maring, Monitoring and Evaluation Expert, IQVIA, India was again the Resource Person.
- ✧ The technical session 6 began with the continuation of the hands-on training by Dr. M Maring, the resource person.
- ✧ Data editing and pooling, handling data etc. in the CSPro package using relevant data in Social Science took place in technical session 7 and technical session 8. The technical sessions of the day ended with an active and enthusiastic interaction amongst the Resource Person and the participants of the workshop.
- On the 18<sup>th</sup> of July, 2022; the 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> Technical took place with Prof A Choudhury, Professor, Department of Statistics. Gauhati University, Assam as the Resource Person.
- ✧ In technical session 9; the resource person - Prof. Choudhury, started the session with introduction to the Statistical Package for the Social Sciences (SPSS). He gave a detail explanation on relevant technicality related to SPSS. He presented the basic methods in using this package and led all the participants present to a hands-on practice using examples.
- ✧ In technical session 10; Prof. Choudhury lectured on practical perspective of Social Science research. He patiently delivered his session to the participants- from teaching how to enter the data, describing variables in the technical language and organising the data in SPSS.
- ✧ In technical session 11; the session continued with handling the data in SPSS. The resources person delivered the hands-on practice on data analysis using basic statistics. The session concluded with an active participation of questions and answers to and from the resource person and the participants.
- On the 19<sup>th</sup> of July, 2022; Prof A Choudhury, Professor, Department of Statistics. Gauhati University, Assam was the Resource Person again for the 12<sup>th</sup> and 13<sup>th</sup> Technical Sessions.
- ✧ The technical sessions for the day started with the continuation in data analysis using Basic Statistics in SPSS. In technical sessions 12 and 13; the resource Person, Prof. Amit Choudhury explained and illustrated through hands-on practice with the participants starting with a statistical test - the t-test by an example given by him. He then went on in presenting the detail methods in hypothesis testing using various relevant examples and data. He delivered to the participants on how to analyse, compare findings and interpret the findings based on statistical tools like hypothesis testing, p-value, etc. The last technical session for the Workshop also saw an active interaction, question and answer session amongst the resource person and the participants.

The National Workshop concluded with a Valedictory Programme on 19<sup>th</sup> July, 2022 held in the College Conference Hall at 01:00 P.M. in which Dr. Mazel Ampareen Lyngdoh, Member Legislative Assembly, Shillong East Constituency graced the occasion as the Chief Guest and Smt. Isawanda Laloo (IAS) Deputy Commissioner, East Khasi Hills District, Shillong as the Guest of Honour. The programme began by a welcome address from Shri. D R Mawkhlieng, Convener of the National Workshop and subsequently Smt. I S Khyriem, Joint Convener of the National Workshop briefed the Rapporteurs' Report of the Seven-Day National Workshop.

The Principal of Shillong College; Dr. (Mrs.) E Kharkongor, addressed the gathering. She congratulated the Department of Statistics and the IQAC, Shillong College for the success of the Seven-Day National Workshop in "Application of Statistics in Social Science Research" and especially for making the Workshop a meaningful as per the participants' remarks. She encouraged the participants to continue learning even though the workshop has come to an end because learning is an unending process. She was confident that all the training acquired from this Workshop will enhance research, teaching and learning proficiency of all the participants. She concluded her speech by conveying her best wishes to all the participants in their future endeavour.

In her speech, the Deputy Commissioner of East Khasi Hills District, Smt. Isawanda Laloo, congratulated the Department of Statistics, the IQAC and entire Shillong College fraternity for the successful completion of the Seven-Day National Workshop. She applauded the College for being at the forefront in organising such programmes which is relevant not only to Academics but also to Government Administration. She further highlighted the prominence of statistical data and its application in Social Sciences Research and also shared her experience while handling data as a District Administrator. Likewise, she added that her office collects and uses data on a daily basis. She also claimed that without data the Government Administration; in terms of policy-making, projects, programme implementation, etc.; are helpless and ineffective. The decision taken as District Administration rely on Statistics that are in hand such as data on number of voters, number of people enrolled for Aadhar, number of vaccinated persons and many more for the whole State. Thus, data handling and data management is very important in every fields.

In an inspiring and intellectual Valedictory Address, the Chief Guest; Dr. Mazel Ampareen Lyngdoh, Member Legislative Assembly, Shillong East Constituency; expressed that it was a privilege to be part of this programme not only as a Legislator but as a Researcher too. She emphasised on the importance of Research and particularly the application of Statistics in various fields of research. She added that Statistics is very useful for every spheres of human life and claimed that as a Legislator, research through Statistical Techniques is much needed for implementation of various schemes/programmes of the Government. Further she said that without data, it would be difficult to progress as the Government very much relies on data facts. She asserted and also suggested that at the district level; the District Administration should take into account the various Research programmes and outcomes so as to achieve Government targeted goals and the implementation of such goals should be research-based. She ended the Valedictory Address by encouraging and inspiring the

Researchers present in the Workshop by sharing her experience during her PhD work and advised them to never lose hope, to stay strong and to keep doing the good work even though research work can be very tedious and challenging. She also wished everyone present a success in life.

All the fifty-one participants were awarded with a Certificate of Participation for the Seven-Day National Workshop on “Application of Statistics in Social Science Research” organised by the Department of Statistics in collaboration with the Internal Quality Assurance Cell (IQAC), Shillong College held from 13<sup>th</sup> to 19<sup>th</sup> July, 2022 at Conference Hall, Shillong College.

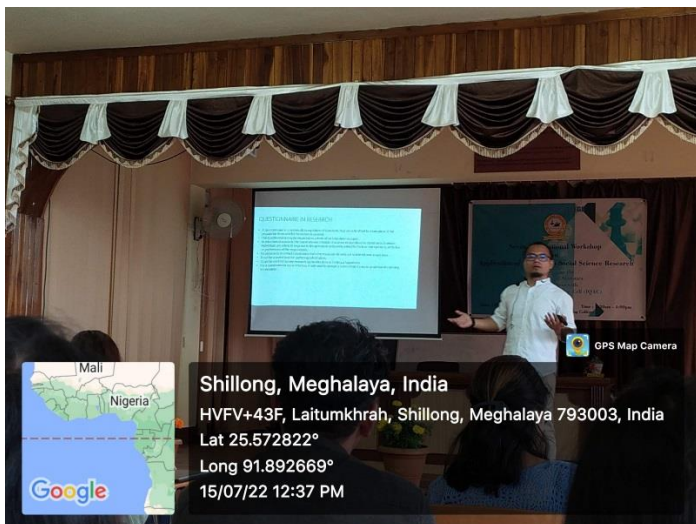
The Valedictory Programme ended with a Vote of Thanks from Dr. S Sarma, IQAC Co-ordinator, Shillong College followed by a group photo.















**Shri. D M Syiem**  
**Co-ordinator**  
**Seven-Day National Workshop**  
**Shillong College**

**Shri D R Mawkhlieng**  
**Convener**  
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