

From Data to Dissertation: Tools and Techniques

(15th October 2025)

The Department of Statistics organised an event titled “From Data to Dissertation: Tools and Techniques” on 15th October 2025 at 1pm, in affiliation with the Central Alumni Committee. The predominant aim of the workshop was to confer an in-depth understanding of the dissertation process.

Ms Stuti Tripathi, Technical Staff at the National Institute for Research, ICMR, conducted the session. She commenced the workshop by explaining that data shapes the epistemological foundation of research. She uncovered the difference between qualitative and quantitative data, highlighting how each impacts interpretation and analysis. She underscored the formulation of research questions and hypotheses, explaining that meticulously constructed questions form the structural scaffold of any academic research...

She further delineated a nine-step methodological schema that involved variable demarcation, hypothesis articulation, and feasibility assessment, underlining the coherence between methodological structure and investigative scope. Subsequently, Ms Tripathi accentuated how research designs, whether cross-sectional or longitudinal, affect analytical outcomes and explained the connection between causal, correlational, and exploratory frameworks.

She reckoned that data analysis abetted the understanding of individuals, groups, and communities through methods such as observation, surveys and interviews. Furthermore, she averred that sampling built accuracy and authenticity. The session then advanced to statistical techniques, focusing on simple random, systematic, stratified, cluster, convenience, and purposive sampling. Ms Tripathi proffered data collection methods and the use of statistical tools in model selection, hypothesis testing, and regression...

Ms Tripathi concluded the session by delineating the dissertation framework, proclaiming that logical structuring inculcated conceptual clarity and narrative coherence. She shared accessible academic repositories for scholarly research. The session helped participants' understanding of how research transforms from data collection to conclusions.