

Module 2: Research Methodology

Lecture S.N.	Topic	Contents
Lecture 01	Introduction to research in sustainability	Areas of research in sustainability in the built environment
Lecture 02	Philosophical strands in research and research approach	
Lecture 03	Literature review	Significance of literature review in research, types of literature review, structure of literature review, development of literature review, identification of research gap
Lecture 04	Reference management	Citation styles in research, In-text citation, list of references, bibliography, Introduction to reference management software
Lecture 05	Qualitative methods of data collection	Various qualitative methods in research including interviews, focus group discussions, case study method, observations, record keeping etc. their purposes, advantages and disadvantages.
Lecture 06	Quantitative methods of data collection	Various quantitative methods in research including surveys, experiments, systematic observations, questionnaires, etc. their purposes, advantages and disadvantages.
Lecture 07	Mixed methods of research	Mixed methods, their advantages and disadvantages, triangulation in research
Lecture 08	Qualitative methods of data analysis	Content analysis, thematic analysis, narrative analysis, grounded theory analysis, discourse analysis etc., selection of data analysis method, and interpreting the results.
		Qualitative data analysis using Nvivo
Lecture 09	Scientometric Analysis	
Lecture 10	Quantitative methods of data analysis	Descriptive and inferential statistics, training on use of SPSS for data analysis, selection of data analysis method, conducting tests and interpreting the results
Lecture 11	Training on Introduction to BREEM	
Lecture 12	Graphical presentation methods of data analysis	Various techniques of graphical representation including Bar charts, histograms, line graphs, pie charts, pictographs, frequency distribution, scatter plots etc. and reporting the results
Lecture 13	Scientific writing for publications	Characteristics of scientific writing, types of scientific writing, structure of a research paper, use of language in scientific writing
Lecture 14	Presentation techniques	Outline of preparation for oral presentation and communicating the research