

CS-305 Elective III (3) **Research methodology** (4 Credits)

UNIT I: Introduction, the Purpose and Product of Research What is research?, Evaluating Research, The 6Ps of research, Reasons for doing Research, possible products, Finding and choosing research topics, evaluating the purpose and product of research.

UNIT II: Overview of the Research Process, Internet Research A model of the research process, Alternative models of the research process, evaluating the research process, Background of the Internet and WWW, Internet research topics, The Internet and a literature review, The Internet and research strategies and methods, Internet research, the law and ethics.

UNIT III: Reviewing the literature, Surveys and Design Creation Purpose of literature review, literature resources, The Internet and literature reviews, conducting literature reviews, evaluating literature reviews, Define Surveys, Planning and Designing surveys, the internet and surveys, Example of Surveys, Defining design and creation, Planning and conducting design and creation research, Creative computing and digital art.

UNIT IV: Experiments, Case studies, Action Research

Defining experiments, Planning and conducting experiments, The internet and experiments,

Defining case studies, Planning and conducting case studies, The internet case studies,

Defining Action research, Planning and conducting Action research, The internet and Action research

UNIT V: Interviews, Observations, Questionnaires Defining Interviews, Planning and conducting Interviews, Group Interviews Internet based Interviews, Defining Observations, Planning and conducting systematic Observations, Planning and conducting participant Observations, The internet and Observations.

UNIT VI: Quantitative data analysis, Qualitative data analysis and Presentation of Research Defining Quantitative data analysis, Types of Quantitative data analysis, Data coding, Visual aids for Quantitative data analysis, Using statistics for Quantitative data analysis, Qualitative data analysis-Introduction, Analysis textual data, Analyzing non-textual qualitative data, Grounded theory, Presentation of Research- writing up the research, conference paper presentations, Posters and exhibitions, software demonstrations, Presenting yourself, PhD vivas.