WORK PLAN AND METHODOLOGY

The whole study will be carried out as follows:

1. **Literature search**
   Literature search about epidemiology of disease, plant and methods shall be done from eBooks, e-journals, books of medical plants of India, previous thesis and libraries of different colleges.

2. **Identification, collection and authentication of the plant.**
   Fresh leaves of plant will be identified and collected from north Gujarat in monsoon season. Leaves of the plant will be identified by botanist.

3. **Preparation of extract**
   Leaves of the plant will be shade dried, powdered and extracted with suitable solvent like ethanol using Soxhlet Apparatus. Extract will be dried and preserved.

4. **Acute toxicity study of dried extract**
   Acute toxicity study shall be carried out according to OECD guidelines to find out lethal dose (LD_{50}) of dried extract.

5. **Animal Ethical Clearance**
   Animal Ethical Clearance will be taken from Institutional Animal Ethics Committee (IAEC) for experiment on animals.

6. **Selection of animal models for antidiabetic and antihyperlipidemic activity**
   Animal models shall be selected on the basis of authenticity, popularity and disease specificity. Animal study shall be carried out in following models.
   a) Stertotozacin(STZ)-nicotinamide induced type II diabetes
   b) High fat fed Diet-low dose of streptozotacin induced type II diabetes

7. **Parameters to be measured for antidiabetic and antihyperlipidemic activity**
   - blood glucose
   - lipid profile
   - insulin level
   - body weight