2. Aim and Objectives

Bacteria are the important cause of Urinary tract Infections. It accounts for more than 74% morbidity and needs high medical cost for treatment. UTI affect all age groups and occur in both hospitalized and non hospitalized individuals and have serious impact on the socioeconomic life of individuals and the society. Multi numbers of pathogens are involved in pathophysiology of UTI. Worldwide report revealed *E. coli* as the major bacterial etiology of UTI. Uropathogenic *E. coli* had potent pathogenic islands in the form of virulent factors. UTIs are treated with large proportions of antibacterial drugs. Treatment failure is attributed to increasing resistance to common antibiotics. Novel treatment strategies were needed to overcome the problems of antimicrobial resistance.

**Aim**

The present study is to evaluate the incidence of uropathogens, bacterial virulence, antibiotic resistance, plasmid profile, molecular characterization, molecular docking as well as to evaluate antimicrobial potentials of medicinal plants against uropathogens.

**Objectives**

- To isolate Uropathogens from urine samples.
- To identify Uropathogens
- To categorize incidence nature of Uropathogens
- To assess antibiotic resistance pattern of Uropathogens
• To assess virulent factors of prevalent Uropathogenic *E. coli* UPEC

• To assess molecular profile of prevalent Uropathogenic *E. coli* UPEC

• To assess antibacterial activity of four different medicinal plants on UPEC

• Molecular docking of bioactive compounds with drug targets.