**Abstract**

This paper examines the Microbial diversity and genomic analysis of different soil bacteria. Soil microorganisms play a major role in decomposing organic matter. However, understanding the diversity of this complex microbial community in the soil environment is an interesting task. The main Concept of the soil microbial diversity is to collect the sequences from the DNA from the particular soil, and to implement the obtained sequences by using software tool, and the major methods of study are briefly introduced in this paper. Then the application of biochemical based and molecular based techniques are used to extract DNA from the particular soil bacteria. The outcome of this soil investigation is to obtain the clear knowledge about the microbial diversity and to identify the features of the soil.