**ABSTRACT**

Plants play an important role in the earth’s ecology. Without plants, human lives cannot exist in this world. But in the recent days, people are not having knowledge about many types of valuable plants. They are at the risk of extinction. So, it is necessary to protect plants and to catalogue various types of flora diversities and it is important to maintain plant databases which pave a way towards conservation of earth’s biosphere. In the world wide, there are a huge number of plant species available. To handle such volumes of information, development of a quick and efficient classification tool using machine learning algorithms is needed. In addition to the conservation aspect, recognition of plants paves a way to use those plants as an alternative energy source. In this paper, various techniques used to classify the leaf images using machine learning algorithms are studied.