Elements in plant tissues have been a hot topic in many subjects such as plant neurology, Environmental science and Ecology. With development of human civilization, human activities brought about the increasingly serious environmental problems, Heavy Metals emitted into the stratosphere and the subsequent threats to vegetation and human lifecycle are becoming a stuff of countless anxiety.

The accumulated pollutants in the atmosphere and its negative effect has attracted the researchers of different disciplines, all over the world to study the environmental issues. Various studies conducted in the field of environment show that physical and cultural environment is important for studying relationship between man and ecological problems. Plants may accumulate heavy metals by absorbing them either from airborne contaminants, or from soil.

Biological monitoring or Bio-monitoring, is dimension of the reply of alive creatures to variations in their situation, give combined evidence on air excellence impressions. During active bio-monitoring, plants shows response to air contamination. Trees fixed in investigation zones. Leaf samples together and transferred in the lab for analysis. Heavy metal pollutants interrupt the ecosystem and since of unbreakable and physiological impact observed on vegetation.

To estimate the effect caused by air pollution on tree leaves have been widely and effectively employed in bio-monitoring studies, as an alternative to instrumental monitoring. Although a quantitative relationship between air and plant concentrations of pollutants are not yet established, leaf content of pollutants mirrors their air concentrations, providing time averaged information on air contamination trends.
Greeneries of several evergreen and deciduous plant species used as bio-monitors for both inorganic and organic pollutants. Such plant species used as bio-indicators likewise be contingent on exactly how extensively they remain dispersed through the area.

The usage of air pollution, bio-indicators usually cover metallic deadliness in traffic, smelters, withdrawal activities, industrial pollution, coal-burning authority plants, and agriculture. The use of plants as passive bio-monitors in current pollution monitoring programs, acquire more attention. As vegetation are immovable and additional delicate in relations of physiological response to more predominant air contaminants than hominids and faunas, they had better show native circumstances.

Therefore, floras are the utmost-shared used bio-indicators in air superiority studies. Mosses plus lichens is the flora, which readily accumulate air pollutants. Higher plants used as bio indicators in areas with significant air pollution in the absence of Moses, but the use of plants in the bio sign of heavy metal levels is not regularly practiced yet. Dissimilar plant tissues like greeneries, flowers, bark, and origins from logically arising plant or grasses we assessed as possible bio indicators of heavy metal pollution.

The current investigation deals with inspection of air quality and the role of plants. Previous the air quality elevation was not undertaken for the research purpose, especially for elemental analysis. The density of plants in an around Nanded city is thick. Air pollution increases due to numbers of vehicles are increasing day by day.
The entire thesis completed into eight chapters. A brief review of air pollution and its disasters. Its necessity to control by using the method of bio-monitoring to assess air pollution described in Chapter-I as an introduction.

Nanded district in the central part of India and the eastern part of Maharashtra. Location by Nanded city and its boundaries explained in Chapter-II. Established on the increasing size of city sampling locations are also selected and given their reasons of selections. Considering the above air pollution status of the city, we have set up the sampling sites and their locations. This chapter gives details of plants selected for the study.

Chapter-III deals with air quality analysis with the help of plant leaf samples. The quality parameters, namely the pigments i.e. total chlorophylls and carotenoid and Heavy Metals [copper, lead and zinc] estimated from leaves. Based on such analysis, suitability of plants and load tolerance of air pollution for various places. Classified with the help of statistical methods and statistical software’s. Further, the plant classification established through the pigment status. The estimations of total chlorophyll and total carotenoid to arrive at a quantitative figure in important the plant load tolerance status.

Chapter-IV consists the review of literature in it few studies in India and abroad about air pollution and response of plants towards it.

Chapter-V Based on Results and discussion, it includes the selected six sites continuously used for the two years from January 2011 to December 2012. Photosynthetic pigments (total chlorophyll and carotenoids) and heavy metals
concentration (copper, lead and zinc) in different selected plant species has observed. From six sampling sites of Nanded city during January 2011 to December 2012.

In conclusion (Chapter-VI), summary and conclusion of various investigations and remedial measures for air pollution. Recommended for implementation by the Government of Maharashtra.

Chapter-VII includes the references of various national, international journals and reports of various governmental and nongovernmental organizations. Lastly references from books or chapters and various theses submitted to many universities from India and abroad.