

# Influence of Prevailing Air Quality on Physiological Attributes of certain Plant Species in Industrial Area

P. Rupa <sup>1</sup>, T. Venkatachalam <sup>2</sup>

<sup>1</sup>Department of Chemistry, Coimbatore Institute of Technology, Coimbatore, India

<sup>2</sup>Department of Physics, Coimbatore Institute of Technology, Coimbatore, India

Email: [rupspadmanabhan@rediffmail.com](mailto:rupspadmanabhan@rediffmail.com)

## Abstract

In this research a systematic attempt was made to screen and investigate twenty-two species of plants grown around the SIDCO industrial area, Coimbatore for their ability to improve the design of the urban industrial area. The relative water content, total chlorophyll content, ascorbic acid content and leaf extract pH of plants were analysed and the air pollution tolerance index of the plant species were computed. On the basis of high air pollution tolerance index, the plants were screened for their tolerance to air pollution. The identified tolerant species of plants, such as *Annona squamosa* and *Magnolia champaca*, with high air pollution tolerance index value from selected area were recommended for air pollution management during plantation programme to minimize pollution and to create a healthy environment.

**Keywords:** Plants, air pollution tolerance index, total chlorophyll, ascorbic acid, plantation programme