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Eco Friendly Pollution Control System Using Smoke Sensor and Cloud

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Abstract: Lack of trees and deforestation is the major threat to mankind after the effect of pollution. Planting trees were going on various areas but still the temperature at least between particular areas. It will be efficient if there is a system that predicts a sufficient number of trees needed to be planted at a particular spot if not reducing the temperature at least to control same temperature and prevent it from increasing further making it difficult for humans as well as many living things to survive.

Keywords: Deforestation, Smoke sensor, Temperature control.

I. Introduction

Environmental pollution and the effect as lack of trees thereby increasing surface temperature is the major threat to the mankind. We have already proposed a system that classifies a given particular area is more polluted less polluted that too in a specific time. In continuation to that system we took the output of that system and we take another dataset that deals with a minimum number of trees for a sq km also the output of that system together fed as input to our proposed system that uses machine learning algorithms to predict the number of trees needed to be planted to maintain the temperature.

Fig. 1: Pollution Due to Industries

II. Major Benefits Of Trees

(a) Trees make the soil rich in minerals that paves as an ecosystem for many other organisms.
(b) Trees controls the temperature around it direct impact of sunlight and temperature is considerably reduced.
(c) Important way to reduce global warming or to prevent rise in temperature is to increase tree population.

III. Proposed System

There are lot many benefits we harvest because of the presence of the trees. Main thing now a days is for controlling the temperature and purifying air. Our previous system will actually gain the data that is related to the amount of smokes produced by the vehicles and industries at a particular GPS point on the globe. Those data collected over a period of time in various regions densely polluted, sparsely polluted. In the polluted areas population density will also be monitored. Whether the densely polluted areas is densely polluted and similar things. All these parameters were takes into account and decided whether the smoke produced is beyond the sustainable level and the smoke will lead to temperature rise in turn.

These parameters will be collected and learned over a period of time will be used as dataset. This input is supplied to our algorithm that uses machine learning algorithm under supervised learning category. Since supervised learning category that suits best in this case we select many areas where temperature is soo high due to spare population of trees and cool areas due to presence of dense trees and this will be fed for the learning by the algorithm. After several cycles of learning the smoke parameters will be fed for prediction. Over a period of time the system will start predicting a beneficial level of accuracy on number of trees must be planted to maintain or reduce the temperature.

IV. Conclusion

Planting more number of trees on areas where the trees are already more will not impact the other areas where trees are less. We hope our system will help in predicting this and in future improvements we are planning to take multiple areas at once to decide for example n number of trees from location X can be migrated along with the roots to Location Y so that the temperature can be controlled to some extent.

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