**Autonomous Nursery Report**

Introduction: Autonomous Nursery refers to a system that can grow plants and flowers automatically and independently without human intervention. The aim of this project is to discuss the objectives, significance, application methods, and observations of our revolutionary project “Autonomous Nursery”. Our project is a model of our larger project that is based out of 16 x 16 m2 area in the school where we have used practical circuits to help plant grow on an environment with sufficient nourishment and proper somatogenic conditions.

Objectives: The main objectives of our project are:

1. To automate the process of plant and flower cultivation and minimize or completely eradicate the need for manual labour.
2. To reduce the cost of plant and flower production by optimizing the use of resources such as water, fertilizers, and space.
3. To improve the quality and consistency of the plants and flowers produced.
4. To reduce the risk of plant diseases and pests by controlling the environment in which the plants are grown.
5. To integrate modern technology into traditional farming and helping farmers revolutionize agricultural industry.

Significance: Our project has several significant benefits, including:

1. Increased efficiency and productivity due to the automation of many manual tasks.
2. Reduced labour costs, as fewer workers are needed to run the nursery.
3. Improved plant and flower quality, due to the controlled environment provided by the autonomous system.
4. Increased sustainability, as the use of resources such as water and fertilizer can be optimized.

Application Methods: Our project includes several key components:

1. Climate control: The temperature, humidity, and light levels are carefully controlled to provide optimal growing conditions for the plants.
2. Irrigation: Automated irrigation systems are used to deliver water and fertilizers to the plants.
3. Lighting: Artificial lighting is used to provide the plants with the optimal amount of light for growth.
4. Monitoring: The system is equipped with sensors and cameras to monitor the plants and the environment, allowing for real-time data collection and analysis.

Observations: In practice, autonomous nurseries have proven to be highly effective, with several key observations:

1. Improved plant and flower quality due to the controlled environment provided by the autonomous system.
2. Increased efficiency and productivity, as the system is able to perform many tasks faster and more accurately than manual labor.
3. Reduced costs, as the use of resources such as water and fertilizer can be optimized.
4. Improved sustainability, as the system is able to reduce waste and minimize the impact on the environment.

Conclusion: Autonomous nurseries are a promising technology that offers several benefits, including increased efficiency, improved quality, and reduced costs. The benefits of autonomous nurseries are clear, and they are likely to become increasingly widespread in the coming years. Overall, we believe our project will be the future of Nepalese agricultural industry.

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