AN OPERATING MECHANISM TO COLLECT PLASTIC WASTE FROM RIVER WATER

A PROJECT REPORT

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ABSTRACT

The project aims to tackle the issue of plastic waste management through the implementation of a new and innovative approach. The proposed method involves waste reduction measures to ensure the use of plastic materials. The goal is to reduce the amount of plastic waste that ends up in the water ecosystem and to promote a more circular economy where plastic materials are reused and repurposed in a responsible and environmentally friendly way.

The system automates waste disposal using an Arduino microcontroller and a DC motor. Real-time monitoring and adjustment of filtration process ensures accurate sorting. A rear-load disposal box makes collection convenient. Plastic waste is deposited from the back, enhancing user accessibility, and promoting efficient waste collection. The collected waste is stored securely, and when full, the system triggers a notification for waste collection personnel, optimizing the workflow.

The system has undergone rigorous testing in real-world conditions to determine its performance and efficiency in the management of plastic waste. The results have shown that the system is outstanding at automating the disposal process, accurately sorting different types of plastic, and providing a user-friendly experience with the rear-load disposal box. The integration of smart technologies has further improved the performance and sustainability of the system, making it an ideal solution for efficient plastic waste management.