Project Title

CLEANING MACHINE

Problem Statement

Manhole labourers are often forced to enter sewer lines and drainage manholes manually without proper safety equipment, training, or mechanized tools. This dangerous practice exposes them to toxic gases, low oxygen levels, infections, and sudden accidents. Many workers enter confined spaces with little protection, risking serious illness, injury, or even death. Lack of awareness, poor facilities, and limited support make their work extremely hazardous. Safer systems, protective gear, and mechanized cleaning methods are needed to protect their lives and dignity while doing this essential sanitation work.

Project Team - Civil



TEAM 5 - AKAYY

Team Members

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SDG Goals

SDG 3 – Good Health and Well-Being

SDG 8 – Decent Work and Economic Growth

Solution

A drainage cleaning machine is a smart and safe solution designed to clean sewers and drains without requiring workers to enter hazardous manholes. The machine uses mechanical arms, rotating cutters, suction pumps, or high pressure water jets to remove sludge, plastic, and solid waste from drainage lines. It can be operated from above ground using simple controls, keeping workers away from toxic gases and contaminated water. The system reduces manual labor, improves cleaning speed, and ensures deeper removal of blockages. It is built with durable materials to work in dirty and wet conditions and can be mounted on a small vehicle or trolley for easy movement. Using such a machine lowers health risks, prevents accidents, and promotes hygienic sanitation work. It also saves time and cost for municipalities by making maintenance more efficient. Overall, a drainage cleaning machine protects workers' safety, improves sanitation, and supports cleaner and healthier communities.



