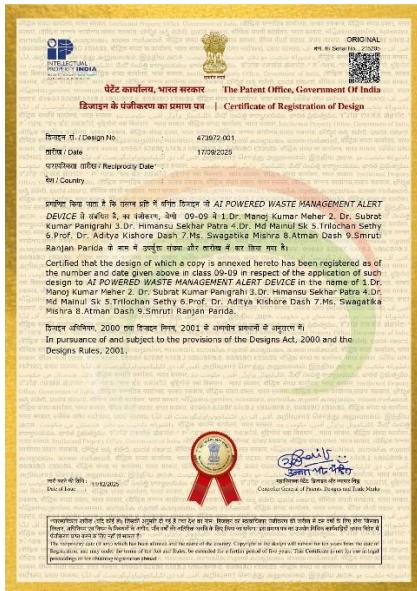


# Maa Manikeshwari University Secures Design Registration for AI Powered Waste Alert Device



Maa Manikeshwari University secures design registration from the Government of India for the "AI Powered Waste Management Alert Device." The Department of Zoology led this interdisciplinary effort, earning a Certificate of Registration from the Patent Office under the Designs Act, 2000, and Designs Rules, 2001. Design No. 473972-001, under Class 09-09, was registered on September 17, 2025, and issued on December 11, 2025. It protects the device's novel shape, configuration, and aesthetic features.

The core team from Maa Manikeshwari University includes Dr. Manoj Kumar Meher (Department of Geography), Dr. Subrat Kumar Panigrahi (Head, Department of Zoology), Ms. Swagatika Mishra (Department of Zoology), and Smruti Ranjan Parida (Department of Zoology). Five additional experts from other universities and research centers collaborated.

## Device Functionality

This intelligent device integrates AI, sensors, and automated alerts to monitor waste levels, environmental conditions, and status in real time. AI algorithms generate notifications for collection, overflow prevention, and maintenance, reducing manual efforts, optimizing schedules, and enhancing hygiene across urban, rural, institutional, and industrial settings.

## Future Applications

It offers potential for smart city IoT integration, predictive analytics, GPS tracking, cloud systems, and adaptations for biomedical or hazardous waste. These features support data-driven governance, sustainability, and public health.