

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411023631 A

(19) INDIA

(22) Date of filing of Application :25/03/2024

(43) Publication Date : 26/04/2024

(54) Title of the invention : VERSATILE LITTER BIN

(51) International classification :B65F0001140000, F24D0019100000, B65F0001000000, H04W0004380000, H04W0004029000

(86) International Application No :NA
Filing Date :NA

(87) International Publication No : NA

(61) Patent of Addition to Application Number :NA
Filing Date :NA

(62) Divisional to Application Number :NA
Filing Date :NA

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(57) Abstract :
 The present disclosure introduces a versatile litter bin 100 which represents a significant advancement in waste management technology, offering a comprehensive system to address the challenges of waste segregation, storage, and containment. This innovative system comprises of bin container 102, wet chamber 104, dry chamber 106, moisture sensor 108, camera 110, microprocessor 112, automatic hydraulic system 114, input port 116 and ultrasonic sensor 118. The moisture sensors 108 and cameras 110, helps the bin autonomously detect and monitor garbage levels, facilitating real-time data analysis and decision-making. An automatic hydraulic system 114 adjusts the bin's height dynamically based on garbage levels, preventing overflow and maximizing storage capacity. The closed lid design enhances sanitation and deters pests, while an input port 116 allows for convenient waste deposition. Interfacing seamlessly with a microprocessor 112 and ultrasonic sensor 118, this user-friendly system streamlines waste management processes and promotes environmental sustainability. Reference Fig 1

No. of Pages : 19 No. of Claims : 10