

(54) Title of the invention : IOT-BASED SMART DUSTBIN FOR EFFICIENT GARBAGE SEGREGATION

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(57) Abstract :

The present invention relates to an IoT-based smart dustbin (102) and method for efficient garbage segregation. The IoT-based smart dustbin (102) includes top-mounted inlet (202), mid-top outlet (204), plurality of compartments (206a-206n), section (208), infrared sensor (210), wet sensor (212), camera module (214), a controller (216), a servo motor (218), a data collection unit (220), communication unit (222) and battery (224). The method involves initiating garbage segregation by depositing garbage into smart dustbin (102) through inlet (202), activating, infrared sensor (210), wet sensor (212), and camera module (214) to sense signals and capture images representing garbage type and transmitting collected data to controller (216), enabling controller (216) to process and analyze received data, activating appropriate compartment (206a-206n), activating data collection unit (220) that gathers information about collected garbage and produces valuable insights and sending gathered information to concerned authority via communication unit (222).

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