SMART WASTE MANAGEMENT SYSTEM FOR METROPOLITAN CITIES

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| **S.NO** | **TITLE** | **AUTHORS** | **DESCRIPTION** |
| 1. | Smart Waste Management System using IoT | Prof. S.A. Mahajan, Akshay Kokane, Apoorva Shewale, Mrunaya Shinde, Shivan | IoT based “Smart Waste Management” is the best and trending solution. In the proposed system, public dustbins will be provided with embedded devices which help in real time monitoring of the level of garbage in garbage bins. The data regarding the garbage levels will be used to provide an optimized route for garbage collecting vans, which will reduce the cost associated with fuel. The load sensors will increase efficiency of data related to garbage level and moisture sensors will be used to provide data of waste segregation in a dust bin. |
| 2. | RFID based Real-time  Smart Waste Management System | Belal Chowdhury  Morshed U. Chowdhury | In an environmental context, the use of RFID (Radio Frequency Identification) and load cell sensor technology can be employed for not only bringing down waste management costs, but also to facilitate automating and streamlining waste (e.g., garbage, recycling, and green) identification and weight measurement processes for designing smart waste management systems. In this paper, we outline a RFID and sensor model for designing a system in real-time waste management. An application of the architecture is described in the area of RFID and sensor based Automatic Waste Identity, Weight, and Stolen Bins Identification System (WIWSBIS). |
| 3. | Elements of Innovative Scenario’s Development of Waste Management System in Russia | E.Y.Prisyach  O.A.Shvetsova | Development of the Industry for the Processing, Utilization and Disposal of Production and Consumption Wastes for the Period to 2030"; an innovative element of eco-technical parks is analyzed; the level of useful waste generation for 2017 - early 2018 is estimated; the definition of manufacture equipment's localization for processing, recycling and neutralization of a waste is resulted. |
| 4. | Smart City Waste Management System Using Internet of Things and Cloud Computing | Prof.Aderemi A. Atayero  Segun I.Popoola  Rotimi Williams  Joke A.Badejo  Sanjay Misra | The fill level of solid waste in each of the containers, which are strategically situated across the communities, is detected using ultrasonic sensors. A Wireless Fidelity (Wi-Fi) communication link is used to transmit the sensor data to an IoT cloud platform known as Thing Speak. Depending on the fill level, the system sends appropriate notification messages (in form of tweets) to alert relevant authorities and concerned citizen(s) for necessary action. Also, the fill level is monitored on Thing Speak in real-time. The system performance shows that the proposed solution may be found useful for efficient waste management in smart and connected communities. |
| 5. | IOT Enabled Smart Waste Bin with Real Time Monitoring for efficient waste management in Metropolitan Cities | Manju Mohan,  Kuppan Chetty Ramanathan,Vijayram Sriram,Mohd Azeem | Waste Bin with real time monitoring is presented and a smart waste management system is proposed using the recent technical advancements of automation and Internet of Things (IoT). The capacitance sensor in the bin continuously monitors the level of the bin in real time and communicates to the central cloud where the bins are connected. Ultrasonic sensor is used to open and close the lid of the bin whenever the persons are nearby the bin. Such smart bins are connected to the cloud, where the bin status is communicated, recorded and monitored by the local bodies through an android app or a centralized server. |
| 6. | Research on Manufacturer's Product Pricing Model under Waste Self-Selection Disposal Mode | Di Wu,Chunyou Wu | Waste disposal, which caused the increase of its operating cost. Therefore, it is important for studying in product pricing under the waste self-selection disposal mode of manufacturer to advance the formation of competitive advantage of product price. Based on this, this paper establishes an organic contact between three kinds of waste and waste self-selection disposal mode, analyses the basic characteristics of different modes and constructs the pricing models by the method of econometrics. This paper confirms the optimal product pricing and profits of different waste and provides references for manufacturers to choose appropriate disposal modes. |
| 7. | Municipal Solid Waste Management in China | M.A. Borisova  M.V. Ryshivoka  A.A. Gomazova | Metropolitan areas of the people's Republic of China, as well as the study of methods used in our country, which allowed on the basis of this work to assess the quality of municipal waste management in the Russian Federation and to propose possible solutions to the problems found. To overcome the problems associated with the method of municipal waste management, we propose the creation and expansion of the domestic industrial base, providing the industry for the processing, disposal and disposal of waste modern Russian high-tech competitive, environmentally friendly equipment. |
| 8. | E-waste Generation and Awareness on Managing Disposal Practices at Delhi National Capital Region in India | Shadma Parveen  Shao Yunfei  Jian Ping Li  Jalaluddin Khan  Amin UI Haq  Sun Ruinan | This research is focused on E-waste generation and awareness of its managing disposal practices based on a high standard questionnaire. This study focusses only on mobile, laptop, notebook, computer and Television as an E-waste. The structured questionnaire is widely spread and received around 200 households of the different working sectors as well as different income groups individual's reactions. The findings of individual awareness of generation and managing disposal practices are considerably lacking. It should be negative impact of health issues in the Delhi (NCR) area. |
| 9  10. | Electron linacs in radioactive waste disposal problem  Implementation of Automatic Waste  Management System Using IOT & Android for Smart Cities | N.P .Dikiy  A.N.Dovbnya  S.Yu.Sayenko  V.L.Uvarov  Pulkit Bindal  Utkarsh Srivastava  Chirag Agarwal  Himanshu Gupta  Chhaya Sharma | NSC KIPT based on /spl gamma/-activation analysis using bremsstrahlung of the high-current electron linac. On the other hand disposal of the radioactive waste faces a problem of confinement materials (including geological structures). Such materials have to keep their protection properties with respect to radionuclide transport under absorbed dose value up to /spl sim/10/sup 7/ Gy during thousand years or so. The elaborated methods for production of radionuclide-tracers and operative determination of their diffusion coefficients into barriers under different doses of the braking photons are described.  IoT Technology as a possible option for waste management alerts in the system. We need to take some  smart measures in order to solve this concern. The Department measurement mechanism will alert the local government or staff to the garbage problem in various sectors of the city. That dustbins will be connected to a central system and a microcontroller ATSAM3X8E Board additionally an ultrasonic sensor will be there. This shows the present state of the trash. The GUI module, which plays a big role in our project, is critical to its success.  Index Terms: smart dustbin, automatic bin, waste |