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(57) Abstract :
I-VERMI-REACTOR: CONTINUOUS FLOW VERMI-REACTOR FOR FAST TRACK URBAN SOLID WASTE TREATMENT defines a functionality used to restrict an authorized access to the devices having confidential as well as personal data. Solid waste generation from urban neighborhood i.e. URBAN SOLID WASTE (USW) is very large - 1.523 to 2.210 kg/c/d.; of which 41 to 86 % is organic. Aerobic and anaerobic composting is tried for USW management. Aerobic composting systems: windrows, batch: very slow process, needs large areas and long retention times (9 to 11 weeks), and therefore not economically doable in developing countries like India. Anaerobic composting systems: (landfills) are usually accepted method for disposal of organic component of USW and solid waste residue. Landfills particularly ill maintained are not eco-friendly, release greenhouse gases, pollute (through leach ate migration) water resources ground water plus surfaces downstream, require large areas (7 - Ilha/lack population) and needs long retention time (few years). Vermicomposting is an ecofriendly process is very commonly used and universally adopted for solid waste management in agro-fields, where retention time is not a deciding parameter, land being amply available. Batch reactors for MSW using Endrilus Eugenia/Eisenia Foetida indicated process completion period of 20 days. Continuous flow reactor in vessel Vermicomposting is tried for manure, food waste, bio-solids and other organic residuals. However, this technology is not yet tried on large scale for USW management under controlled conditions. It requires less space and run on decentralized basis inside the city area by reducing conveyance time and cost. The studies were undertaken through this research work, by a framework of understanding and implementation of biological and engineering principles underlying with a particular attention of continuous-flow reactor technologies. EiseniaFoetida used to produce vermicastings requiring minimum Retention Times under optimum environmental conditions. The end point of process is based on end product characteristic. This work develops models for collection and conveyance, and standardizes the process kinetic rate constant for Vermicomposting flow reactor. This also reveals that the standardization of environmental parameters and performance, in order to access the efficacy of the Vermicomposting process. RT (Retention Time) as less as 15 to 18 days, using specially designed continuous-flow vermin-reactor Finally, this research work proposes continuous-flow vermin-reactor is a possible good alternative for USW management in and around urban areas and quicker circulation of nutrients (Vermicomposting) to ecosystem.

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(54) Title of the invention : IOT-AIS-DESK-: USING IOT APPLICATION INTELLIGENT STUDENT DESK

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(57) Abstract :
The invention IOT-AIS-DESK smart student desk system is system that provides required technology for student for effective teaching learning process in current scenario students are using desks which does not contain any technology and which are made for only sitting purpose. SSDS provide facilities such as: 1 Digital Writing device which is used for writing with help of digital pen. 2 Fingerprint sensor module which is used for authenticating the students (i.e. Users). 3 Digital display device capable of displaying content. 4 Speaker module which will enhance speech of teacher. 5 Cloud storage which can be accessible remotely with IOT Technology. 6 Keyboard and Mouse Module (In required cases). 7 Every desk will be connected (4-G or 5-G) with internet connection. 8 Auto maintains the attendance system at every lecture. Main motto of this invention is to reduce the weight of bags of students and provide students intelligent advanced facilities.

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(57) Abstract :
An embodiment of the present disclosure is related, in general, to image processing, exclusively to a method and system of restoring at least one image. The method comprises of receiving, by an image restoration device, at least one distorted image from a source. Also, the method involves comparing intensity of each of the plurality of pixels with intensity associated with all neighborhood pixels in the at least one distorted image, to obtain a degraded set of pixels and obtain parent-child relation between all the plurality of pixels. Further, the method comprises of restoring the degraded set of pixels of the image using intensity value of each of the plurality of pixels and reordering the plurality of pixels based on at least one of the intensity values of each of the plurality of pixels and the parent-child relationship between the plurality of pixels, to generate a restore image.

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