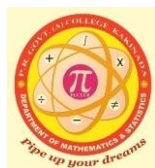




WASTE MANAGEMENT PROGRAMME

DEPARTMENT OF MATHEMATICS



August 23, 2023

PITHAPUR RAJAH'S GOVERNMENT COLLEGE (A)
KAKINADA

A waste management system or waste disposal is a streamlined process that organizations use to dispose of, reduce, reuse, and prevent waste. It is also an approach where companies implement comprehensive strategies to efficiently manage wastes from their origin until their final disposal. Possible waste disposal methods are recycling, composting, incineration, landfills, bioremediation, waste to energy, and waste minimization.



Main Objectives of Waste Management

- Minimize the Production of Waste
- Reduce Pollution Effects
- Protect Groundwater Sources
- Ensure Sustainability

So, what are the core objectives of waste management?

To minimize waste production

Ensuring right garbage managing practices ultimately helps us to minimize the scrap generations. Because doing so, you learn to reduce, recycle, and reuse as much stuff as you can. Reducing the wastages cuts down the costs related to its disposal. Recycling renovates the scrap product and makes it usable one more time. Whereas reuse enables us to reutilize the items that are still in good condition for use.

To soothe pollution effects

Another objective is to lower down the harmful pollution impacts of garbage. Food residue, when thrown on open places, starts to emit toxic methane while rotting up. This potent methane gas then causes the pollution on global masses resulting in warming up of the planet. So, by integrating the correct scrap handling measures, you can soothe these powerful pollution effects to a certain extent.

To protect groundwater sources

Whenever one discards the wet scraps into rivers, oceans, or other water sources, it badly pollutes the water present there. Not just water, it also contaminates the soil present below it. It makes the water unable to drink. Nonetheless, it also endangers the lives of marine animals living beneath the water. In conclusion, by implementing right waste management methods, you will be able to safeguard these limited water sources & rare marine species present on our earth.

To assure sustainable growth

One must aim to achieve higher monetary success but not at the expense of the environment. As we use the natural resources for business growth, we must not forget to take utmost care of our nature. So, you can achieve the business & environmental balance by incorporating right waste handling methods. Like you must integrate the sustainable garbage handling practices in your business. This in turn will ensure right economic growth while considering environmental protection.

To protect well-being of living beings

Last but not the least, one must live a healthy lifestyle throughout his/her life span. This is possible only when there will be a fresh and safe environment everywhere on our planet. As you know the waste is the major cause of increasing pollution these days, you should make efforts to resolve these issues. By doing so, it will improve the quality of life as people like you and me will be able to live in a much safer environment.

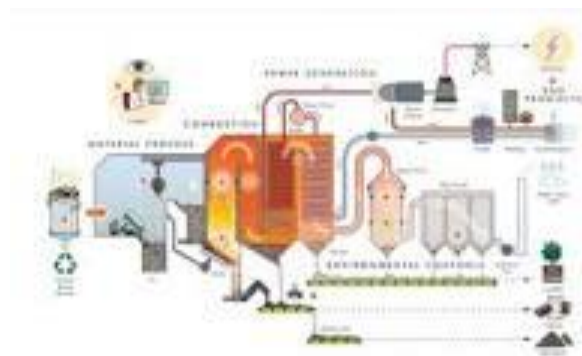
Waste Disposal Methods

There are multiple waste management strategies and methods available. These strategies can be combined or rearranged to form a waste management system that fits an organization. Modern waste management strategies are geared towards sustainability. Other alternatives for waste disposal is to reduce, reuse, and recycle waste.

1. **Recycling** – also known as physical reprocessing, recycling is ideal for the disposal of inorganic waste such as plastic, glass, and metals. Though organic waste such as paper and food can also be recycled, composting would be a better waste disposal method as it converts organic waste into nutrient-rich fertilizer.



2. **Waste-to-Energy** – or WtE on the other hand, is the conversion of non-recyclable waste into heat, electricity, or fuel using renewable energy sources such as anaerobic digestion and plasma gasification.



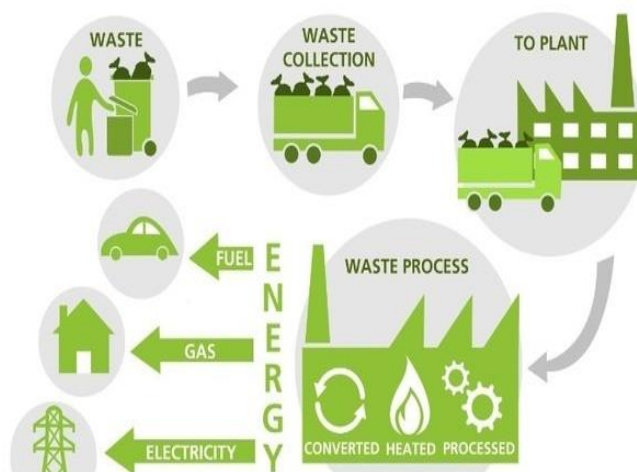
3. **Anaerobic digestion** – the biological reprocessing of animal manure and human excreta into methane-rich biogas. Plasma gasification uses a plasma-filled vessel operating at high temperatures and low levels of oxygen to transform hazardous waste into syngas. Another option for disposing of hazardous waste is bioremediation, the treatment of contaminants, toxins, and pollutants through micro-organisms.

Environmental Benefits of Waste Management

Nowadays waste management is a growing concern around the world. Many people think that recycling efforts do not go as far as they should, possibly due to unawareness of their benefits. Therefore, governments must intervene and make some laws that mandate waste recycling. In this article, I will discuss benefits of regulating waste management and its effective compliance.

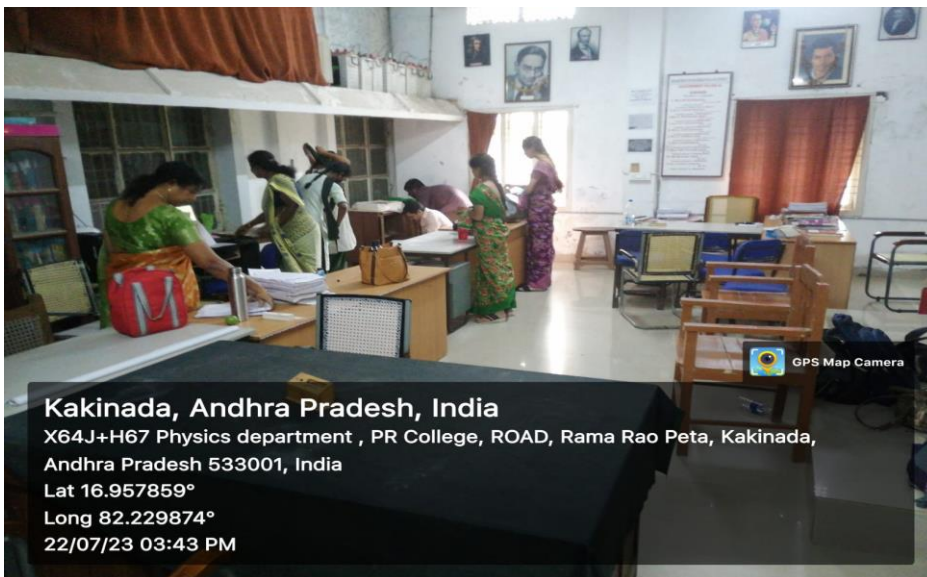
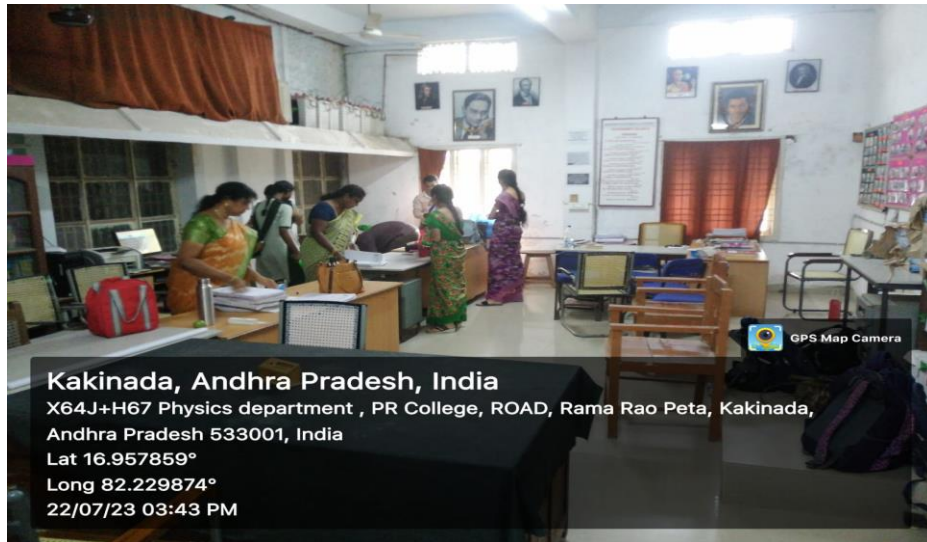
Firstly, I would like to discuss environmental impact, which is highly significant in the present era. Effective disposal of waste for onward recycling helps in production of new materials with minimum extraction of natural resources. Recent advancement in manufacturing technology helps to make variety of new products from recycled materials. Such techniques help us in reducing carbon footprint by minimum dependency on natural resources like wood, ore, sand and others. Awareness campaigns related to recycling process and legal compliance will make a positive impact on society and it will encourage people to reprocess their college level waste through proper process.

Secondly, the economic dimension, which is one of the most important aspect to discuss. Governments around the globe must think about long term financial impact of effective waste management. Implementation of government policies in favor of recycled products and tax subsidies will help minimize the waste and maximize production from used materials. It will also encourage industry leaders to increase their fund in research and development of more innovative and cost-effective techniques to produce from waste materials. Such innovative moves will save huge sum of money because of significant reduction in actual waste material.



The Department of Mathematics conduct a waste management program in department level from
23-07-2023







Conclusion:

So, you should start managing your scraps at college as it is the responsibility of every one of us. To get started, you can compost the wet residue that gets generated at your college every now and then.

You can follow the traditional ways or install the fully automatic composting machine-like Goldust. This machine decomposes any kind of wet scrap and produces rich manure. The organic waste compost machine or waste to compost machine follows the 3R principle i.e. Reduce, Recycle, and Reuse.

THANK YOU