



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

# IJIRSET

International Journal of Innovative Research in  
**SCIENCE | ENGINEERING | TECHNOLOGY**



# INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 11, Issue 9, September 2022

**ISSN** INTERNATIONAL  
STANDARD  
SERIAL  
NUMBER  
INDIA

Impact Factor: 8.118



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6381 907 438



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# Review on Food Waste Management System

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**ABSTRACT:** In recent times, food wastage is increasing at an unprecedented rate and creating a negative effect on the economic growth factors. This in turn creates a major impact on the agricultural processing industries. As food recycling is always remaining as a complex task, in this project, we are focusing mainly on the food wastage in the office premises, wedding, events etc. This web application is used to manage wastage foods in a useful way. Every day the people are wasting lots of foods. So, we have to reduce that food wastage problem through online. In general, we are automating the process of the food wastages.

**KEYWORDS:** Food wastage, Manage wastage foods, Food recycling

## I. INTRODUCTION

Food Waste Management System is a web based technology which manages foods. This web application provides interface between food donor and food require. In this application food donor enter their food quantity details and addresses.

The donator can create the account and whenever they are having wastage food they can login and give request to the admin. The admin collect foods from donator through their nearby agent then provide to nearest orphanages or poor people. After receiving the food from the agent by admin and give alert message to that donator. This project is food redistribution is an enormously successful social innovation that tackles food waste and food poverty. The donor details are e maintained confidential because it maintains a separate account for each donor.

In this project we use PHP and MySQL database and it has only three module i.e. Admin, donor, and user.

## II. LITERATURE REVIEW

food waste formation process or origin of food waste and existing food losses (Mena et al. 2011). Food waste in the world is currently about one-third of food for human consumption produced in the world, every year around 1.3 billion tons are lost or just wasted. Then, food that is wasted is causing enormous losses in various countries, both developed and developing countries. In industrialized countries it is estimated that 670 million tons of food are wasted and 630 million tons of food is wasted in developing countries with the highest levels of food coming from tubers, vegetables and fruit (FAO, 2011). Food waste can come from intentional or unintentional behaviour. Foods that spill or rot before reaching the final product or retail stage are called food losses. These food losses can be caused by various things such as problems at harvest, storage, packaging, transportation, market mechanisms, and institutional and legal frameworks. While food that is suitable for human consumption but not consumed because it is damaged or disposed of by consumers is called food waste. Because the occurrence of food waste is due to the poor rules for marking food in and out, so that a lot of food is wasted because of expiration, improper storage, and buying or processing (Kopfi Sulsel, 2018). Food waste and waste that occur not only causes losses in the economic sector, but also in other sectors such as the environment and social. This research was carried out by looking at and sorting the results of previous studies on food waste and waste and aimed at finding out about the trend of food waste throughout the world.

This research was conducted with the aim to determine the extent to which research on food loss and food waste is carried out and the use of what methods are most often used. The reading sources or literature used to review the literature in this study used sixty scientific articles over the past few years starting from 2009 to 2018 relating to food waste and waste as the main source of research data. Article search is done using online search (via ProQuest, Elsevier and Google Scholar) and uses the keywords 'Food loss and food waste'. Scientific articles that are used



as reading material are expected to be able to find out more about waste and food waste and it will be recommended that future research is needed on food loss and food waste.

### III. FOOD WASTE AND MANAGEMENT

#### Overview of food waste in India

Food wastage is an alarming issue in India. Canteens, weddings, restaurants, hotels, family functions, social household spurt out a lot of food. According to United Nations development programme, about 40 % of food which is produced is wasted in India. Roundabout 21 million tonnes of wheat is wasted every year. According to the agriculture ministry, Rs. 50,000 Crore worth food is wasted each year in our country.

According to food and agriculture organization (FAO), a prodigious 1.3 billion tonnes of food is being wasted annually. One-third of the total global food production is wasted, costing world economy around Rs 47 lakh Crore. This formidable acceleration in food wastage is breeding nearly 3.3 billion of tonnes of greenhouse gases, thereby affecting the environment. Wastage of rice is a serious issue as, decaying of rice inhibits Methane, which is most potent global warming gas.

According to National Resource Defence Council (NRDC), 40% of food is not eaten out of all which is produced in the US; whereas in South Asia, India, China 1.3 billion tonnes of food is wasted every year. In terms of food wastage (agriculture, poultry, dairy) India ranks 7th with the Russian Federation. The foremost reason for being on the lower part of the scale is the utilization of land. In India major chunk of land is utilized in agriculture and this, in turn, explains the wastage of cereals, pulses, fruits, and vegetables occurring in India. Meat accounts for 4% of food wastage but contributes 20% to the economic cost of wastage. Wastage of fruits and vegetables is 70% of total produce but it, in turn, contributes 40% of the economic cost of wastage. Food loss and waste generated contributes 8% of total greenhouse gas emission.

#### Waste Management

Unavoidable food waste should be sent for composting for fertilizer production. This unavoidable food is 100% renewable fuel for electricity, heat or transport. Unavoidable food should not be buried inside the land where environment friendly alternatives are available. This practice can lead to land pollution which in turn would harm our natural resources adversely.

### IV. SOFTWARE & HARDWARE REQUIREMENTS

Any Version of browser after Mozilla Firefox 4.0, Internet Explorer 6.0, chrome

#### Hardware requirements:

Any processor after Pentium 4.  
Any version of Windows XP or later.  
Processor speed: 2.0 GHz  
RAM: 1GB  
Hard disk: 40GB to 80 GB

#### Software requirements:

Database: MySQL  
Server: Apache  
Frontend: HTML  
Scripting Language: JavaScript  
IDE: Sublime  
Technology: PHP

Example based on inpainting technique is used for inpainting of text regions, which takes structure synthesis and texture synthesis together. The inpainting is fills the damaged region or holes in an image, with surrounding colour and texture. The algorithm is based on patch-based filling procedure with respect to system. First find target region using mask image and then find boundary of target region. For all the boundary points it defined patch and find the priority of these patches. It starts filling the target region from the highest priority patch by finding the best match



patch. This procedure is repeated until entire target region is in painted. The algorithm automatically generates mask image without user interaction that contains only text regions to be in painted.

## V. CONCLUSION

In our project, we are focus on donate wastage food this will create a greater impact on the cost saving as well as the food wastage management system. In our future work, we will try to integrate with other emerging technology such as block chain and also it will cover more areas. Food Waste Management System is a web based technology which manages foods. The donator can create the account and whenever they are having wastage food they can login and give request to the admin.

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