**Project Proposal**

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**General Area Topics**

* Demand forecasting on Supply chain management
* Project Management tools (MS project)
* Select best alternative
* Lean methodology on reduce waste
* Product planning and design
* Sensitivity analysis
* Project Management for designing new production line
* Continuous improvement in manufacturing and production line
* Design new service for understating customer needs

**Focused Topic**

***Design of new product compact home compost disposal Bin***

There are many compost disposal bin in the market. Many do not appeal to the public as they take up space and are typically outside and that alone is too much for people to want to separate their food scraps and garbage. So for our design we wanted to create a compact compost disposal bin that is very easy to operate and competitive with others in the market, for our target audience it would be the common household. Households who already compost their foods, or families who want to start composting. Hobbyists who are into home gardens and growing their own food. It will be simple and easy to use and it will appeal to even those who do not consider composting and gain a new target audience.

**Research Papers**

1) A review of optimisation techniques used in the composite recycling area

By,Ying liu;Michael Fransworth; Ashutosh Tiwari

<https://www-sciencedirect-com.proxylib.csueastbay.edu/science/article/pii/S0959652616311635>

Summary

The goal of this paper is to examine a number of optimization techniques which are already used in the composite recycling area and advice for future research issues that optimization must have to have good practice for composite recycling. They also used keywords and their combination for literature search.

2) A life cycle approach to the management of household food waste.

By, A.Bernstad,J la Cour Jansen

<https://www-sciencedirect-com.proxylib.csueastbay.edu/science/article/pii/S0956053X11001115>

Summary

This paper shows how life cycle assessment can be used as a decision support tool for waste management authorities. They compared 3 different methods for management of household food waste. The paper aims to identify key elements in the treatment chain that contribute positive or negative impact in the management chain. They also researched data of waste for transportation distance type vehicles, energy use and fuel type.

3) Home composting versus industrial composting :influence of composting system on compost quality with focus on compost stability

By, Raquel Barrena ;Xavier Font; Xavier Gabarrel

<https://www.sciencedirect.com/science/article/abs/pii/S0956053X14000609>

Summary

The aim of this paper is to compare the compost quality of many compost samples from home and industry composting. They use some compost sampling data for their study and they also study on stability. They use statistical analysis of ANOVA to calculate the statistical difference of each type of compost analyzed.

**Methodology/Approach**

**Analysis:**

***Analysed Design of new product compact home compost disposal Bin***

**Planing:**

**Demands forecasting- moving average method, simple exponential smoothing Regression analysis method**

**Comparative analysis**

**Select best alternative by compassion with standard**

**Select best alternative by comparison with each other**

**Weighing method**

**Production:**

**Predict the manufacturing times and machinery needed**

**Competitive price:**

**Bill of material and cost analysis**