

Albayrak Waste Management

Albayrak Group of Companies took a step forward in Turkey in 1992 for waste management. Hence, it had contributed largely for the issue of modernizing both the methods employed and the equipment's used. Albayrak provides safe and healthy working conditions to its sanitary staff and other employees because we believe that workplace safety and satisfaction is fundamental to our success.

An Online Waste Management System

Final Year Project

05-01-2021

**Final Year Project
Bs (Accounting and Finance)**



Submitted by

Talha Afzal (01-112171-036)

Suleman Tahir Abbasi (01-112171-034)

Muhammad Nawa (01-112171-017)

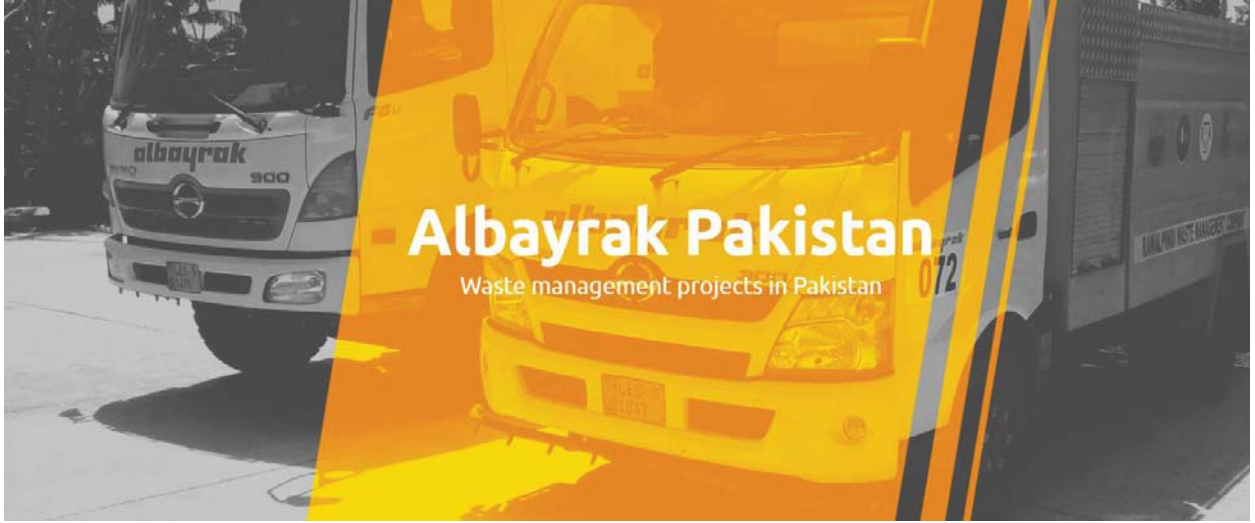
Under the Guidance of

Sir, Shahzad Butt

پیغام ایم ڈی راولپنڈی ویسٹ مینجمنٹ کمپنی

صاف ستھرا ماحول بڑھے لکھے اور باشعور معاشرے کی پہچان بھی ہے اور ہمارے مذہب کی تعلیم بھی، نفاست اور پاکیزگی انسان کی فطرت میں شامل ہے۔ ترقی یافتہ ممالک جہاں دیگر شعبوں میں ہمارے لیے مثال ہیں وہیں صفائی اور ستھرائی کے نظام میں ہمارے لئے مشعل راہ ہیں۔ ترقی کی منازل طے کرتے پاکستان میں صفائی ستھرائی کا عالمی اور معیاری نظام شہریوں کے لئے کسی نعمت سے کم نہیں، یونیفارم میں ملبوس متحرک اور فعال عملے کا صبح سویرے شہر بھر کی گلیوں، دالیوں اور راستوں کی صفائی کرنا، گھر گھر سے کوڑا کرکٹ جمع کر کے احتیاط کے ساتھ ٹھکانے لگانا، چند قدم کے فاصلے پر کوڑا دانوں کی تنصیب، بر یونین کونسل میں کوڑا کرکٹ ڈالنے کی سہولت موجود ہے۔

مینجنگ ڈائریکٹر، راولپنڈی ویسٹ مینجمنٹ کمپنی



ACKNOWLEDGEMENT

First of all we bow our heads before **ALLAH ALMIGHTY** Who enabled us to accomplish this project and granted us with the blessing and helped us throughout the stages of this project. We are indebted to Allah for making us excel in our work, because without His support and guidance we simply could not have taken a step ahead.

We are also extremely thankful to our teacher **Sir Shahzad Butt** for his reward less help, precious suggestions, constant encouragement and guideline that enabled us to write this report.

We like to express our sincere gratefulness and thoughtful regards to the supervisor Mr. Shahzad Butt from the Bahria University Islamabad, for continuous support, and his reward less help, precious suggestions, constant encouragement, patience, enthusiasm, motivation, immense knowledge, constant encouragement and guideline that enabled us to write this report.

In the end we would love to acknowledge the sincere cooperation and moral support of all our respectable teachers and the employees at **ALBAYRAK** and deeply thank all of those who have made it easier for us to achieve our objective.

Table of Contents

Abstract:	7
Chapter 1	8
1. Introduction	8
1.1. Industry Background	8
1.2. Company's Background	10
1.3. Mission	10
1.4. Vision	10
1.5. Our Values	10
1.6. Company's Personnel	11
1.7. Project Scope	11
1.8. Goals of Project.....	12
1.9. Objectives	13
1.10. Important Terms	14
Chapter 2	15
2. Problem Statement and Requirement Analysis	15
2.1. Project Rationale	15
2.2. Albayrak Online Waste Management System	16
2.3. Key Success Factors	18
2.4. Potential Benefits of Project	19
2.5. Constraints	20
2.6. Risk Factors	21
Chapter 3	22
3. Design and Implementation	22

3.1. Design	24
3.2. Implementation	26
3.2.1. The Application	26
3.2.2. Application Model	28
3.3. Template for online waste management application	30
3.4. Waste Collection	35
3.5. Fleet Details	35
3.6. Initial Storage	35
3.7. Segregation	36
3.8. Transfer to Facilities	36
3.9. Processing	36
Chapter 4	38
4. Testing and Deployment	38
4.1. Business Plan:	39
4.1.1. Waste to Energy Plant:	39
4.1.2. Process:	40
4.1.3. Description of the Mass Burn process:	42
4.1.4. WTE Plant Technology:.....	43
4.1.5. WTE Plant Cost:	44
4.1.6. WTE Plant Revenues:	44
4.1.7. Payback Period:	45
Chapter 5	46
5. Future Enhancement and Action Plan	46
5.1. Advertisement	46
5.2. Relations with Suppliers	47
5.3. Technology	48

5.4. Supplier of Machinery and Services.....	49
5.5. Agreements with local waste collectors.....	50
Chapter 6.....	51
6. Recommendations.....	51
7. Appendices.....	55
9. References.....	56

Abstract:

Economic growth of Pakistan is among the most rapidly growing nations in the world throughout the previous two-and-a-half decades. The increase in gross domestic product (GDP) was measured to be six percent per annum and, considered in purchasing power parity (PPP) during the past ten years. Among the different economies in the world, Pakistan is considered to be the 25th largest economy. As today's middle class of Pakistan has reached beyond 60 million people and about one percent of people in Pakistan are estimated to cross the poverty line every year. With this increasing trend in the population the consumption patterns of Pakistan shows the parallel increase. The issue of waste management is very paramount in any country, especially the under developing countries such as Pakistan. The present situation in Pakistan regarding the waste management is not satisfactory as many health issues arise due to the improper treatment of waste and most of the areas are converting into waste hubs. Government of Pakistan have started few waste management projects to control this continually worsening situation but due to the lack of implications and political conditions of the country these projects are not generating valuable outcomes. Therefore we intended to aid Albayrak waste management company currently working and giving waste management service in Pakistan by proposing an online waste management system, the features include door to door waste collection services in the area of Rawalpindi and Islamabad, using technological measures to give solutions for the confined spaces sanitary issues, creating awareness among public about the green environment and the most vital feature of educating society about recycling and its benefits .

This project incorporates the waste to energy conversion facility to be setup at Losar which is being used for the purpose of landfill site since November 2006, the storage capacity of this site will be going to obsolete in the coming years as the amount of waste generated is increasing heavily. The WTE facility will contribute towards the cleaner and safer environment by keeping in view the concept of Green Environment. Furthermore this project can help benefit society in number of ways by providing employment opportunities, converting the waste items into energy sources, enhancing environmental awareness in the community, generation of income from waste, driving the profits of Albayrak higher. Moreover the WTE plant will help the company to reduce its operational costs as the energy produced will be consumed by the company itself and sold to the areas nearer to the plant, by initiating this project Albayrak can exploit more future opportunities by entering into energy sector and can gain competitive edge in Pakistan's market.