



TEAM - SENTINELS

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PROBLEM	SOLUTION
Underutilized Data of Raw material availability all over the Globe	Integration Of AI model with Website, Model will utilize the data and help fuel intensive industries with the best suitable raw material product for their industries to run on.
Abundant Waste (Agri residue, industrial waste, etc.)	By collecting waste material and converting it into a green fuel (BIOMASS) through the technology.
Limited and expensive substitute for fossil fuels	Biofuel is cheaper substitute for fossil fuel
While considering the burning of fossil fuels like coal in industries for their production and burning of paddy straw in lands generates green house gases, pollution, etc.	We convert waste like paddy straw to value like Biomass pellets through Technology which will reduce the problem from both the ends
Unemployability	This will generate jobs in various sectors like supply, manufacturing, forestry, R&D, etc.
Industrial Problem- residue remaining after burning of fuel	We will collect the residue from industry on a suitable cost which will be further used by chemical industries.





Existence	Uniqueness
Awareness Website for Biofuel Like SAMARTH	Integrated AI Model for industries to better understand the specification of product as per their boilers requirements.
BIOMASS BRIQUETTE AND PELLET (PRODUCT) with yearly lab testing	Lab testing for each cycle of new raw material
E-MARKETPLACE like INDIAMART	we provide samples directly through our website below Rs. 1000 which will make industries easier to test sample in their boilers without any market Hustle



TECH STACK:

►WEBSITE:

Frontend - HTML, CSS, JavaScript, Bootstrap, React.js, jQuery Backend - Node.js, Express.js, API

►Integrated AI CHATBOT:

Software Used - Visual Studio Code Language Used - Python

Technology Used -

- 1) Langchain Its a library in python and open source framework which allows to work with AI and LLM (Large Language Model)
- 2) Large Language Model It uses large datasets and deep learning to generate and understand new concepts
- 3) OpenAI It provides access to OpenAI API which gives response to use on basis of the prompt
- 4) Retrieval Question Answering It is used to retrieve documents from a Retriever and then use a QA chain to answer a question based on the retrieved documents



Why Biofuel?

- ➤ Production is very cheaper as the availability of raw material is more.
- ➤ Environment friendly fuel and helps in credit system for industries.
- There is a huge demand in both domestic and foreign industries like sugar mills, paper mills, chemical plants, Cement etc.
- ➤ Biomass briquetting in India relieves poverty and environmental stresses.
- Farmers and rural people can get benefit from selling their own farm waste.







Why US?

- ➤ Understand your Boilers need with AI Chatbot
- we ensures rich quality raw material to be converted into biomass briquettes and pellets.
- Lab testing of biofuel on regular basis to ensure quality according to industrial requirements.
- we even collect the remaining ash by which industry can make an extra profit.
- we ensure to provide best quality biofuel in best price.
- ➤24x7 support will be provided and will be responsible for your satisfactory service.



WORKING FACTORS

Farmers (Raw material provider)

Farmers and rural people will benefit from selling their own farm waste.

Supply Chain

It will include logistics and provide employment to the local communities to serve as traders.



Industries

Fuel intensive industries will serve as a client to this business model by utilizing the product in their boilers.

Manufacturing Unit

Conversion of Raw material to Biomass Pellets includes the process taken under by briquetting machines.



Protecting our planet isn't just an obligation - it's a chance to create a brighter future for everyone!

#SaveTheEarth





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