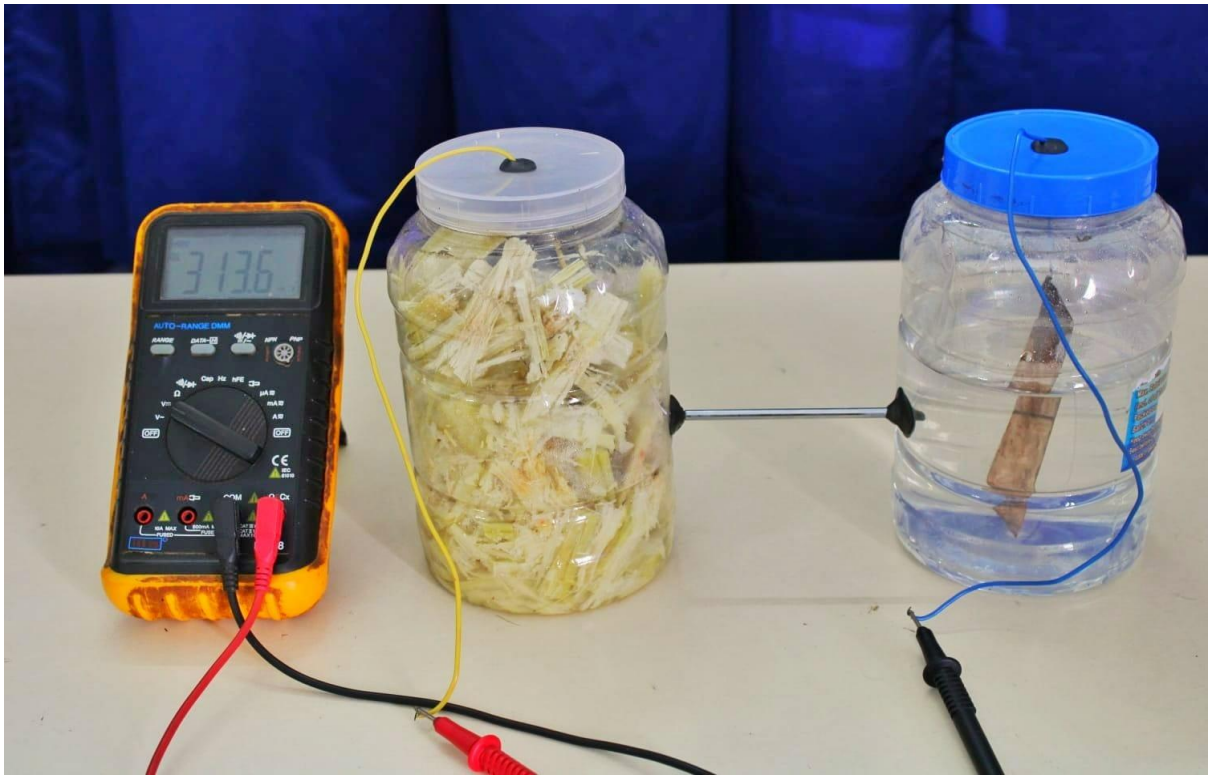
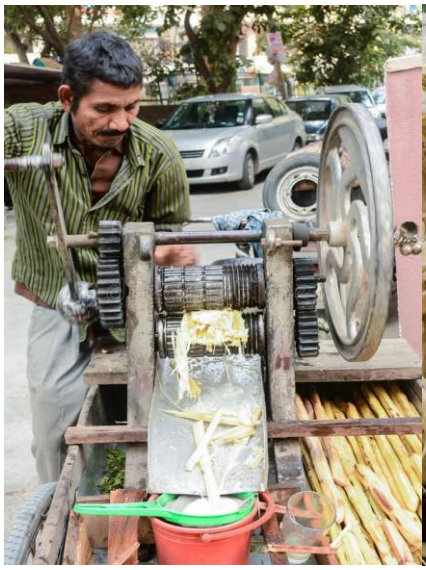
Bagaço Urja



Nowadays a lot of waste is being generated daily. Developing countries are facing severe problems due to the rapid industrialization and urbanization. If the waste is not treated properly and effluent which is the last product of the treated waste is not treated properly it causes pollution to the surroundings also, spreads diseases, and makes society a dangerous place to live. The raw material used to generate electricity is sugarcane waste which will be collected from the local vendors through various means these effluents have a high content of carbon and fats that is used to generate electricity and make the best use with the help of microbial fuel cell (mfc).

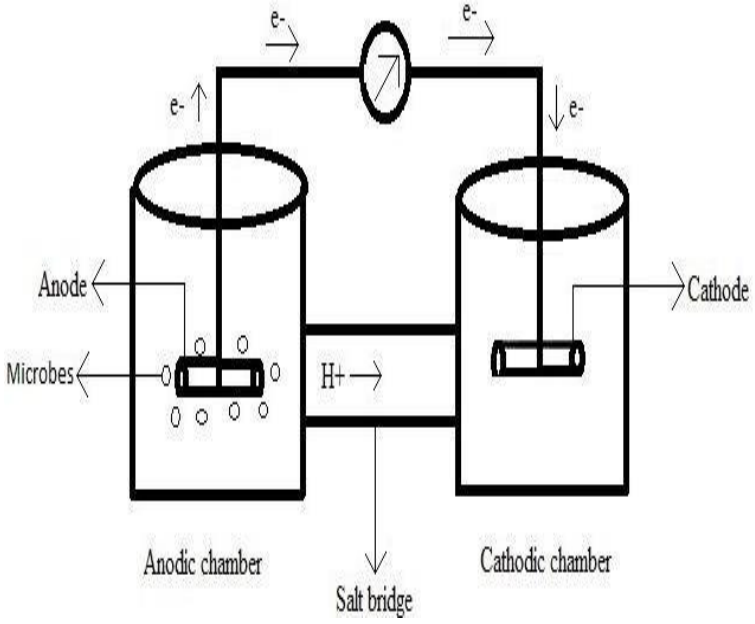
The main aim of the project is to generate electricity by using sugarcane waste through a microbial fuel cell. To make electricity economically accessible to all people for their best use.

Bagasse is always and widely available as a renewable source of energy. Helps to reduce carbon footprint. Inexhaustible energy. Sustainable and self-reliant, as they do not require any external energy supply.



Bioelectricity production is a well-established technology, operating with a variety of feedstocks, able to replace coal-based thermoelectric stations that only convert about one-third of fuel energy into electricity.

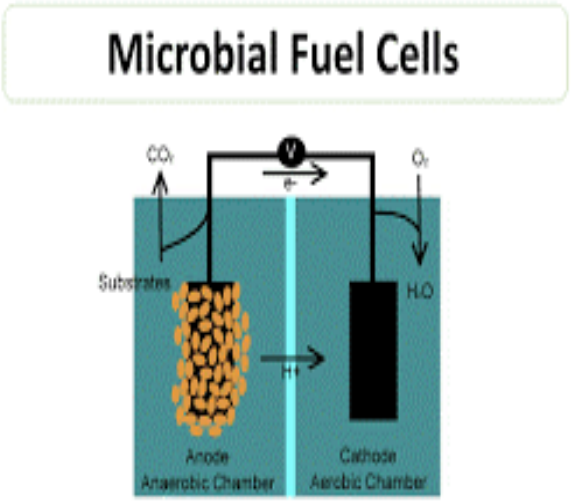
METHODOLOGY:



- We collect the sugarcane waste from the local vendors and store it in closed containers as they produce a foul smell after a while.
- Construction of MFCs: the container containing sugarcane waste undergoes oxidation hence it behaves as an anode. The other container

contains groundwater which consists of petroleum hydrocarbons that act as a cathode.

- These both have copper electrodes dipped in them that help in the exchange of charges.
- The two containers are connected by a stainless-steel rod which helps in the conduction.
- The generation of electricity is mainly due to the oxidation of organic matter.
- The increase in pH values is mainly due to microbial activity,
- MFCs are encapsulated by using an acrylic box to avoid any external contamination.



MARKET OPPORTUNITIES:

Our main aim is to serve the local street vendors who use kerosene lamps, chargeable electric lamps, etc. as sources of light during nighttime. Currently, around 5 million street vendors are present in India, who will be benefited from this product. This method is better than solar, biogas plants, and coal-based electricity generation because these are portable and comparatively give large output, and are eco-friendly. Electricity through solar is not effective during the rainy season whereas storing sugarcane waste can be used during the time of requirement

PROBLEM & SOLUTION:

PROBLEM	SOLUTION
• A lot of waste is being generated daily which can be reused in a profitable way but is not being channelized in a proper way.	• We have concentrated on generating electricity through waste . The raw material used to produce electricity is the sugarcane waste. • These effluents have a high content of carbon and fats is that is used in producing the electricity using Microbial fuel cell
• If the waste is not treated properly it causes pollution to the surroundings , spreads diseases and makes society a harmful place to live .	• Large amount of sugarcane waste is let off which will be used in construction of microbial fuel cells saving on usage of batteries .