



FINAL YEAR PROJECT REPORT

AUTOMATION OF BIOGAS PLANT

**In fulfillment of the requirement
For degree of
BEE (Electronics)**

By

**WAQAR GHAFOOR
ZAHEER UDDIN
BADAR FAYYAZ**

**22915 BEE (ELECTRONICS)
22918 BEE (ELECTRONICS)
22828 BEE (ELECTRONICS)**

SUPERVISED

BY

ENGR. BURHAN AHMED

**BAHRIA UNIVERSITY (KARACHI CAMPUS)
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ABSTRACT

Developing countries are in critical energy crisis. Pakistan spends almost 7 billion US\$ on import of fossil Fuels annually to congregate its energy needs. The renewable and sustainable energy resources are best Substitute to the conventional fuels and energy sources. Pakistan takes the opportunity to have almost 159 million animals producing almost 652 million kg of manure daily from cattle and buffalo only; that can be used to generate 16.3 million m³ biogas per day and 21 million tons of bio fertilizer per year.

Biogas from anaerobic digestion of biological wastes is a renewable energy resource. Typical biogas contains 50-65% methane (CH₄), 30-45% carbon dioxide (CO₂), moisture and traces of hydrogen sulphide (H₂S) and can be used for power generation through internal combustion engine.

What we are trying to make is fully automated biogas plant that could be one step further in the research work that have been done already. So, that our finished product can be marketed and generate income rather than spending millions of dollars.

The need of a national policy is imperative to bring this technology at farmer's doorstep.

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