



Visvesvaraya Technological University

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A Project Report

On

“SMART BIO-GAS ENERGISER”

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ABSTRACT

India's energy demand is increasing day by day. About 80% of rural energy consumption comes from non-commercial sources such as fuel wood, animal dung, and agro wastes etc. Biomass alone meets 57% of the national energy demand. Biogas technology is a particularly useful system in the Indian rural economy and can fulfill several end users. Problems in meeting even minimum energy needs for cooking and lighting in many areas. The alternate solution to overcome from LPG and electrical demand is to generate biogas from organic wastes and using it as cooking gas and for generating electricity. Biogas typically refers to a gas produced by the biological breakdown of organic matter in the absence of oxygen. Organic waste such as dead plant and animal material, animal dung, and kitchen waste can be converted into a gaseous fuel called biogas. Biogas originates from biogenic material and is a type of bio-fuel. In the present biogas system, the generated gas is not used effectively because of losses occurred in the digester and due to storing problem. To overcome from these demerits in the plant we implement the useful techniques such as introducing microcontroller based valves at the inlet and outlet of the bio-digester, automatically extracting the generated gas and preserve in the external storage device, measure and display the amount of gas present in the storage device in psi, the gas present in the storage device if exceeds specified value, gas is converted into electrical energy and converted electrical energy is stored in the battery.