INTRODUCTION:
Worldwide energy crisis directed the attention to the alternative source of energy instead of underground fossil fuels. Achieving solution to possible to shortage in fossil fuel and environmental problems that the world is facing today requires long term potential actions for sustainable development. In CIT Hostel kitchen waste production is approximately 100kg per day and also utilization of LPG is used for cooking purposes. With the use of kitchen waste as feedstock can help to reduce the utilization of LPG and also reduce the uneconomical disposal of the hostels Kitchen. We built a small prototype of Bio gas plant in order to utilize the kitchen waste and also to improve the efficiency of the plant.

OBJECTIVES:
The main objective of our project is all about utilizing the kitchen waste produced in our hostel as well as canteen to produce the bio fuel which as a result can be used for domestic purposes. With the use of kitchen waste as feedstock can help to reduce the utilization of LPG and also reduce the uneconomical disposal of the hostels Kitchen. Its moreover considered as environmentally friendly recirculation of organic waste from the household and reduces the costs for artificial fertilizers.

METHODOLOGY:
We use two PVC tanks of 750l and 500l and PVC pipes and other joints for the construction of our plant. The 750l tank will be drilled with 3 holes 2 90mm holes at the bottom and 1 63mm at the top. The two holes at the bottom are for the entry of slurry into the tank and one for cleaning purpose. The one at the top is for exit of slurry. Once the cow dung and waste are put in we need to wait for fermentation and gas production for around 3 weeks. Once the gas starts filling the 500l tank starts coming up and floating. Through the gas cork at the top we can use the gas for our use.

CONCLUSIONS:
Cost of production is low.
No need to purchase heavy machineries
Working principle is quite easy.
It is easy to construct
It requires low maintenance.

SCPE FOR FUTURE WORK:
Gas chromatography can be conducted to test the constituents present in the biogas
System can be automated for efficient production of gas.