## A Report on

# FABRICATION OF DIGESTER MECHANISM BY USING BUBBLE GENERATOR

A project report submitted in partial fulfillment of the requirements for the

award of the Degree of

#### BACHELOR OF TECHNOLOGY

In

#### MECHANICAL ENGINEERING

#### Submitted by;

B.VENKATRAM Regd. No.18815A0308

A.PAVAN Regd.No.18815A0302 V.SWAMY Regd.No.17811A0361 V.KAMESWARA RAO Regd.No.17811A0360

#### Under the guidance of

A.N.S.SURYA PRAKASH M.Tech Assistant Professor

Department of Mechanical Engineering



# AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, New Delhi & Permanently affiliated to JNTU Kakinada) (Accredited by NAAC, UGC & NBA, AICTE) MAKAVARAPALEM, NARSIPATNAM, VISAKHAPATNAM DIST (2018-2021)

### AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY (Approved by AICTE, New Delhi & Permanently affiliated to JNTU Kakinada) (Accredited by NAAC, UGC & NBA, AICTE) MAKAVARAPALEM, NARSIPATNAM, VISAKHAPATNAM-531113



## **CERTIFICATE**

This is to certify that the project entitled "FABRICATION OF DIGESTER MECHANISM BY USING BUBBLE GENERATOR" in partial fulfillment for the of degree of Bachelor of Technology in MECHANICAL ENGINEERING, at AVANTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM, VISAKHAPATNAM is an bonafied work carried out by B.Venkatram(18815A0308), A.Pavan(18815A0302), V.Swamy(17811A0361), V. Kameswara rao(17811A0360) under the guidance and supervision during 2018-2021.

Project Guid

Head of the Department

External Examiner

## ABSTRACT

Re-circulated gas is continuously fed to bubble generator and intermittently discharged into stack pipe as a large piston bubble (Piston bubble fills the entire cross section of pipe, driving out liquid as it rises and creating a siphon. (As one bubble leaves stack pipe at the top, another enters from generator for both continuous mixing and prevention of solids settling. (Large bubbles burst as they leave liquid surface, creating substantial turbulence that prevents scum buildup.

As there is no scum buildup due to the continuous bubbles by the bubble gun at uniform pressure, then the circulation done without any stationary movement in the digester.

By using the bubble gun or generator no moving equipment is installed inside the digester which reduces the maintenance cost and make the process quicker and simple to operate.