



Contribution ID: 114

Type: Poster Presentation

The design and performance monitoring of fabricated Biogas Digester using plastic

Wednesday, 6 July 2016 16:10 (1h 50m)

Abstract content (Max 300 words) **Formatting & Special chars**

Biogas digester convert organic waste into biogas, which is a mixture of approximately 60% methane and 40% carbon dioxide with trace of gases such as sulphur dioxide. The gas can be used for cooking and heating applications as well as combustion in internal combustion engines and gas turbines for heat and electricity production. There exist various types of biogas digesters, which includes fixed dome, floating drum and balloon type. The construction or fabrication of fixed dome digesters is usually undertaken using bricks and in some cases the dome or gas holder is made of fiberglass. These digesters are mainly characterized by defects such as cracks in the bricks structure thereby making it necessary for consideration of alternative methods of construction or fabrication. This research employs sizing, fabrication and performance monitoring of fixed dome biogas digester using plastic. The final paper will present the results obtained from the study.

Apply to be considered for a student award (Yes / No)?

YES

Level for award (Hons, MSc, PhD, N/A)?

PhD

Main supervisor (name and email) and his / her institution

PROF. N.S MAMPHWELI

smamphweli@ufh.ac.za./UNIVERSITY OF FORT HARE, ALICE SOUTH AFRICA.

Would you like to submit a short paper for the Conference Proceedings (Yes / No)?

NO

Please indicate whether this abstract may be published online (Yes / No)

YES

Primary author: Mr OBILEKE, KECHRIST (UNIVERSITY OF FORT HARE)

Co-author: Prof. MAMPHWELI, SAMPSON (UNIVERSITY OF FORT HARE)

Presenter: Mr OBILEKE, KECHRIST (UNIVERSITY OF FORT HARE)

Session Classification: Poster Session (2)

Track Classification: Track F - Applied Physics