

Biogas Control: Methane Production Monitoring Using Arduino

Authors : W. Ait Ahmed, M. Aggour, M. Naciri

Abstract : Extracting energy from biomass is an important alternative to produce different types of energy (heat, electricity, or both) assuring low pollution and better efficiency. It is a new yet reliable approach to reduce green gas emission by extracting methane from industry effluents and use it to power machinery. We focused in our project on using paper and mill effluents, treated in a UASB reactor. The methane produced is used in the factory's power supply. The aim of this work is to develop an electronic system using Arduino platform connected to a gas sensor, to measure and display the curve of daily methane production on processing. The sensor will send the gas values in ppm to the Arduino board so that the later sends the RS232 hardware protocol. The code developed with processing will transform the values into a curve and display it on the computer screen.

Keywords : biogas, Arduino, processing, code, methane, gas sensor, program

Conference Title : ICPECP 2017 : International Conference on Power Electronics Components and Packaging

Conference Location : Amsterdam, Netherlands

Conference Dates : February 07-08, 2017