

Abstract:

Biogasplants are installations for converting of biomass to produce biogas, which is a valuable energy source if a proper management of an anaerobic process is kept. In the Czech Republic are mainly agricultural biogas plants.

This work is focused on evaluation of data obtained from a specific biogas plant, which is located in the town Úpice. This plant processes biodegradable waste. Data are evaluated qualitatively, also with use of cluster analysis using statistical program R as well as by a proposed linear regression models in Matlab software.

Results were applied for suggestions of several measures for the management of biogas plant and for creation of non-linear regression model, which can be further developed.

Keywords:

Biogas, plant, anaerobic, fermentation, biodegradable, waste, data analysis, differential model