Implementing artificial neural networks and genetic algorithms to solve modeling and optimisation of biogas production

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ABSTRACT
This paper proposed a framework to model and optimises a biogas production using artificial neural networks and genetic algorithms. The intelligence computation was applied to achieve a better model and optimisation compared to a mathematical modeling. Two training approaches were used to train a set of neural networks design. The trained networks model predictions were used to generate a maximum biogas output assisted by genetic algorithms optimisation. The result showed that modeling accuracy with low error will not give a better yield. It also reported a 0.44% increase of maximum biogas yield from the published result.

KEYWORDS
Neural network; Genetic algorithms; Modeling; Optimisation

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