























*Waste management & research : the journal of the International Solid Wastes and Public Cleansing Association, ISWA*, p. 734242X21991642. doi: 10.1177/0734242X21991642.

Alfarjani, F. (2012) 'Design and Optimization of Process Parameters in Bio-Gas Production Systems'.

Arslan-Alaton Idil, I., Yalabik, A. B. and Olmez-Hanci, T. (2010) 'Development of experimental design models to predict Photo-Fenton oxidation of a commercially important naphthalene sulfonate and its organic carbon content', *Chemical Engineering Journal*, 165(2), pp. 597–606. doi: 10.1016/j.cej.2010.10.003.

Ba, D. and Boyaci, I. H. (2007) 'Modeling and optimization II: Comparison of estimation capabilities of response surface methodology with artificial neural networks in a biochemical reaction', *Journal of Food Engineering*, 78(3), pp. 846–854. doi: 10.1016/J.JFOODENG.2005.11.025.

Baek, G. *et al.* (2020) 'Treatment of Cattle Manure by Anaerobic Co-Digestion with Food Waste and Pig Manure: Methane Yield and Synergistic Effect', *International Journal of Environmental Research and Public Health 2020*, Vol. 17, Page 4737, 17(13), p. 4737. doi: 10.3390/IJERPH17134737.

Barik, D. and Murugan, S. (2015) 'Assessment of sustainable biogas production from de-oiled seed cake of karanja-an organic industrial waste from biodiesel industries', *Fuel*, 148, pp. 25–31. doi: 10.1016/j.fuel.2015.01.072.

Beltramo, T. *et al.* (2016) 'Artificial neural network prediction of the biogas flow rate optimised with an ant colony algorithm', *Biosystems Engineering*, 143, pp. 68–78. doi: 10.1016/j.biosystemseng.2016.01.006.

Bhuvaneshwari, S., Hettiarachchi, H. and Meegoda, J. N. (2019) 'Crop Residue Burning in India: Policy Challenges and Potential Solutions', *International Journal of Environmental Research and Public Health 2019*, Vol. 16, Page 832, 16(5), p. 832. doi: 10.3390/IJERPH16050832.

Das, S. *et al.* (2015) 'Optimization of enzymatic saccharification of water hyacinth biomass for bio-ethanol: Comparison between artificial neural network and response surface methodology', *Sustainable Materials and Technologies*, 3, pp. 17–28. doi: 10.1016/J.SUSMAT.2015.01.001.

Dhar, H., Kumar, S. and Kumar, R. (2017) 'A review on organic waste to energy systems in India', *Bioresource Technology*, 245, pp. 1229–1237. doi: 10.1016/J.BIORTECH.2017.08.159.

Douglas C. Montgomery, J. W. (2001) *Design and Analysis of Engineering Experiments*, John Wiley & Sons, New York.

Ellabban, O., Abu-Rub, H. and Blaabjerg, F. (2014) 'Renewable energy resources: Current status, future prospects and their enabling technology', *Renewable and Sustainable Energy Reviews*. Elsevier Ltd, pp. 748–764. doi: 10.1016/j.rser.2014.07.113.

Erdirencelebi, D. and Yalpir, S. (2011) 'Adaptive network fuzzy inference system modeling for the input selection and prediction of anaerobic digestion effluent quality', *Applied Mathematical Modelling*, 35(8), pp. 3821–3832. doi: 10.1016/j.apm.2011.02.015.

Franqueto, R., da Silva, J. D. and Konig, M. (2020) 'Effect of Temperature Variation on Codigestion of Animal Waste and Agricultural Residue for Biogas Production', *Bioenergy Research*, 13(2), pp. 630–642. doi: 10.1007/s12155-019-10049-y.

Geerolf -ii-, L. *et al.* (2018) *The biogas sector development: Current and future trends in Western and Northern Europe The Biogas Sector Development: Current and future trends in Western and Northern Europe* Miroslav Petrov-KTH/ITM/EGI.

Gopal, L. C. *et al.* (2021) 'Optimization strategies for improved biogas production by recycling of waste through response surface methodology and artificial neural network: Sustainable energy perspective research', *Journal of King Saud University - Science*, 33(1), p. 101241. doi: 10.1016/J.JKSUS.2020.101241.

Haryanto, A., Triyono, S. and Wicaksono, N. (2018) 'Effect of Hydraulic Retention Time on Biogas Production from Cow Dung in A Semi Continuous Anaerobic Digester', *International Journal of Renewable Energy Development*, 7, p. 93. doi: 10.14710/ijred.7.2.93-100.

Jekayinfa, S. O. *et al.* (2020) 'Comparative Analysis of Biogas and Methane Yields from Different Sizes of Groundnut Shell in a Batch Reactor at Mesophilic Temperature', *Journal of Energy Research and Reviews*, 5(1), pp. 34–44. doi: 10.9734/jenrr/2020/v5i130140.

Jiménez, J. *et al.* (2014) 'Methanogenic activity optimization using the response surface methodology, during the anaerobic co-digestion of agriculture and industrial wastes. Microbial community diversity', *Biomass and Bioenergy*, 71, pp. 84–97. doi: 10.1016/j.biombioe.2014.10.023.

Kainthola, J., Kalamdhad, A. S. and Goud, V. V. (2019) 'A review on enhanced biogas production from anaerobic digestion of lignocellulosic biomass by different enhancement techniques', *Process Biochemistry*, 84, pp. 81–90. doi: 10.1016/J.PROCBIO.2019.05.023.

Kavuma, C. (no date) 'Variation of Methane and Carbon dioxide Yield in a biogas plant'.

Keanoi, N., Hussaro, K. and Teekasap, S. (2014) 'The Effect of Natural Water with Cow Dung and Agricultural Waste Ratio on Biogas Production from Anaerobic Co-Digestion', *American Journal of Environmental Sciences*, 9(6), pp. 529–536. doi: 10.3844/AJESSP.2013.529.536.

Lebiocka, M. *et al.* (2019) 'Thermophilic co-digestion of sewage sludge and brewery spent grain', *Journal of Ecological Engineering*, 20(10), pp. 118–124. doi: 10.12911/22998993/113139.

Li, Y. *et al.* (2008) 'Optimization of nutrient components for enhanced phenazine-1-carboxylic acid production by gacA-inactivated *Pseudomonas* sp. M18G using response surface method', *Applied Microbiology and Biotechnology* 2007 77:6, 77(6), pp. 1207–1217. doi: 10.1007/S00253-007-1213-4.

Martínez-Gutiérrez, E. (2018) 'Biogas production from different lignocellulosic biomass sources: advances and perspectives', *3 Biotech*. Springer Verlag, p. 233. doi: 10.1007/s13205-018-1257-4.

Namal Senanayake, S. P. J. and Shahidi, F. (2002) 'Lipase-catalyzed incorporation of docosahexaenoic acid (DHA) into borage oil: optimization using response surface methodology',

*Food Chemistry*, 77(1), pp. 115–123. doi: 10.1016/S0308-8146(01)00311-9.

Niladevi, K. N. *et al.* (2009) 'Optimization of laccase production from a novel strain-*Streptomyces psammoticus* using response surface methodology', *Microbiological Research*, 164(1), pp. 105–113. doi: 10.1016/j.micres.2006.10.006.

Okwu, M. O. *et al.* (2021) 'Estimation of biogas yields produced from combination of waste by implementing response surface methodology (RSM) and adaptive neuro-fuzzy inference system (ANFIS)', *International Journal of Energy and Environmental Engineering*. doi: 10.1007/s40095-021-00381-5.

Olatunji, Kehinde Oladoke *et al.* (2022a) 'Modelling the effects of particle size pretreatment method on biogas yield of groundnut shells', *Waste Management and Research*. doi: 10.1177/0734242X211073852/FORMAT/EPUB.

Olatunji, Kehinde Oladoke *et al.* (2022b) 'Modelling the effects of particle size pretreatment method on biogas yield of groundnut shells', *Waste Management and Research*. doi: 10.1177/0734242X211073852.

Olatunji, Kehinde O. *et al.* (2022) 'Performance evaluation of ANFIS and RSM modeling in predicting biogas and methane yields from *Arachis hypogea* shells pretreated with size reduction', *Renewable Energy*, 189, pp. 288–303. doi: 10.1016/J.RENENE.2022.02.088.

Olatunji, K. O., Adebayo, A. O. and Bolaji, G. E. (2020) 'Investigating Organic Manure and Inorganic Fertilizer for Sustainable Maize (*Zea mays*) Production in Southwestern Nigeria', *Asian Journal of Environment & Ecology*, 13(2), pp. 31–40. doi: 10.9734/AJEE/2020/V13I430188.

Olojede, M. A., Ogunkunle, O. and Ahmed, N. A. (2018) 'Quality of optimized biogas yields from co-digestion of cattle dung with fresh mass of sunflower leaves, pawpaw and potato peels', *Cogent Engineering*, 5(1), pp. 1–21. doi: 10.1080/23311916.2018.1538491/SUPPL\_FILE/OAEN\_A\_1538491\_SM7233.DOCX.

Oloko-Oba, M. I. *et al.* (2018) 'Performance evaluation of three different-shaped bio-digesters for biogas production and optimization by artificial neural network integrated with genetic algorithm', *Sustainable Energy Technologies and Assessments*, 26, pp. 116–124. doi: 10.1016/j.seta.2017.10.006.

organischer Stoffe Substratcharakterisierung, V. (2016) *VEREIN DEUTSCHER INGENIEURE Characterisation of the substrate, sampling, collection of material data, fermentation tests VDI 4630 VDI-RICHTLINIEN*. Available at: [www.vdi.de/richtlinien](http://www.vdi.de/richtlinien).

Patil, P. N. *et al.* (2016) 'Intensification of biogas production using pretreatment based on hydrodynamic cavitation', *Ultrasonics Sonochemistry*, 30, pp. 79–86. doi: 10.1016/j.ultsonch.2015.11.009.

Pierucci, S. *et al.* (2019) 'Artificial Neural Network Modelling for Biogas Production in Biogasifiers', in *CHEMICAL ENGINEERING TRANSACTIONS*. doi: 10.3303/CET1974005.

Pinpatthanapong, K. *et al.* (2022) 'Biogas production by co-digestion of sodium hydroxide pretreated Napier grass and food waste for community sustainability', *Energy Sources, Part A*:

*Recovery, Utilization, and Environmental Effects*, 44(1), pp. 1678–1692. doi: 10.1080/15567036.2022.2055232.

Qiu, P. *et al.* (2014) 'Application of Box-Behnken design with response surface methodology for modeling and optimizing ultrasonic oxidation of arsenite with H<sub>2</sub>O<sub>2</sub>', *Central European Journal of Chemistry*, 12(2), pp. 164–172. doi: 10.2478/S11532-013-0360-Y/MACHINEREADABLECITATION/RIS.

QK, B., RK, S. and R, G. (2002) 'Kinetic constants determination for an alkaline protease from *Bacillus mojavensis* using response surface methodology', *Biotechnology and bioengineering*, 78(3), pp. 289–295. doi: 10.1002/BIT.10203.

Raheman, H. and Mondal, S. (2012) 'Biogas production potential of jatropha seed cake', *Biomass and Bioenergy*, 37, pp. 25–30. doi: 10.1016/j.biombioe.2011.12.042.

Rajendran, K., Aslanzadeh, S. and Taherzadeh, M. J. (2012) 'Household Biogas Digesters—A Review', *Energies 2012, Vol. 5, Pages 2911-2942*, 5(8), pp. 2911–2942. doi: 10.3390/EN5082911.

Raymond H. Myers, Douglas C. Montgomery, C. M. A.-C. (2009) *Response surface methodology: process and product optimization using designed experiments*.

Reungsang, A., Pattra, S. and Sittijunda, S. (2012) 'Optimization of Key Factors Affecting Methane Production from Acidic Effluent Coming from the Sugarcane Juice Hydrogen Fermentation Process', *Energies*, 5(11), pp. 4746–4757. doi: 10.3390/en5114746.

Safari, M. *et al.* (2018) 'Optimization of biogas productivity in lab-scale by response surface methodology', *Renewable Energy*, 118, pp. 368–375. doi: 10.1016/J.RENENE.2017.11.025.

Sathish, S. and Vivekanandan, S. (2016) 'Parametric optimization for floating drum anaerobic bio-digester using Response Surface Methodology and Artificial Neural Network', *Alexandria Engineering Journal*, 55(4), pp. 3297–3307. doi: 10.1016/j.aej.2016.08.010.

Shrestha, B. *et al.* (2020) 'A Review of Pretreatment Methods to Enhance Solids Reduction during Anaerobic Digestion of Municipal Wastewater Sludges and the Resulting Digester Performance: Implications to Future Urban Biorefineries', *Applied Sciences 2020, Vol. 10, Page 9141*, 10(24), p. 9141. doi: 10.3390/APP10249141.

Wang, M. *et al.* (2011) 'Optimization of Ethanol Fermentation from Sweet Sorghum Juice Using Response Surface Methodology', *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 33(12), pp. 1139–1146. doi: 10.1080/15567030903330801.

Wu, L. *et al.* (2012) 'Application of the Box–Behnken design to the optimization of process parameters in foam cup molding', *Expert Systems with Applications*, 39(9), pp. 8059–8065. doi: 10.1016/J.ESWA.2012.01.137.

Xu, W. *et al.* (2014) 'Biodiesel production in a membrane reactor using MCM-41 supported solid acid catalyst', *Bioresource Technology*, 159, pp. 286–291. doi: 10.1016/J.BIORTECH.2014.03.004.

Yan, Z. *et al.* (2015) 'The effects of initial substrate concentration, C/N ratio, and temperature on

solid-state anaerobic digestion from composting rice straw', *Bioresource Technology*, 177, pp. 266–273. doi: 10.1016/j.biortech.2014.11.089.

Yaru, S., Adewole, K. and Adegun, I. (2014) 'Comparative study of biogas from cattle dung and mixture of cattle dung with plantain peels', *Nigerian Journal of Technological Research*, 8(2), pp. 44–49. doi: 10.4314/njtr.v8i2.8S.

Zupančič, G. D., Panjičko, M. and Zelić, B. (2017) 'Biogas Production from Brewer's Yeast Using an Anaerobic Sequencing Batch Reactor', *Food Technology and Biotechnology*, 55(2), p. 187. doi: 10.17113/FTB.55.02.17.5080.