

















- [2] Yuliasari R., Darnoko, K. Wulfred and W. Gindulis 2001. Processing of palm oil mill effluent with downstream type fixed bed anaerobic unggan reactors. PPKS Newsletter, 9: 75-81 (in Indonesian).
- [3] IPCC. 2013. Summary for Policymakers. In T. F. Stocker, D. Qin, G.-K. Plattner, M. Tignor, S. K. Allen, J. Boschung, ... P. M. Midgley (Eds.), Climate change 2013: The physical science basis. Contribution of working group I to the fifth assessment report of the intergovernmental panel on climate change (pp. 1535). Cambridge, UK and New York, NY, USA: Cambridge University Press.
- [4] Chin, M.J., P.E. Poh, B.T. Tey, E.S. Chan and K.L. Chin. 2013. Biogas from palm oil mill effluent (POME): Opportunities and challenges from Malaysia's perspective. Renewable and Sustainable Energy Reviews, 26 (2013): 717–726.
- [5] Mahajeno, E., 2008. Development of renewable energy from palm oil mill effluent. (Dissertation) Study Program of Natural and Environmental Resources Management, Postgraduate School of Bogor Agricultural University (in Indonesian).
- [6] G. Banerjee, U. Sarkar, and I. Ghosh, "A Radial Basis Function Network Based Classifier for Detection of Selected Tea Pests," *Int. J. Adv. Res. Comput. Sci. Softw. Eng.*, vol. 7, no. 5, pp. 665–669, May 2017.
- [7] Venkatesan, P. and S. Anitha. 2006. Application of a radial basis function neural network for diagnosis of diabetes mellitus. Current Science, 91 (9): 1195-1199.
- [8] Gengaje, S.R. and L.S. Alandkar. 2012. Prediction of Survival of Burn Patient Using Radial Basis Function Network. Avishkar – Solapur University Research Journal, (2): 1-6.
- [9] Alexandridis, A. and E. Chondrodima. 2014. A medical diagnostic tool based on radial basis function classifiers and evolutionary simulated annealing. *Journal of biomedical informatics*, 49: 61-72. doi: 10.1016/j.jbi.2014.03.008
- [10] Mustakim, M., A. Buono and I. Hermadi. 2016. Performance comparison between support vector regression and artificial neural network for prediction of oil palm production. *Jurnal Ilmu Komputer dan Informasi*, 9 (1): 1-8.
- [11] Markopoulos, A.P., S. Georgopoulos and D.E. Manolakos. 2016. On the use of back propagation and radial basis function neural networks in surface roughness prediction. *Journal of Industrial Engineering International*, 12 (3): 389-400.
- [12] Mohandes, M., A. Balghonaim, M. Kassas, S. Rehman and T.O. Halawani. 2000. Use of radial basis functions for estimating monthly mean daily solar radiation. *Solar Energy*, 68 (2): 161-168.
- [13] APHA. 1998. Standard Methods for the examination of water and wastewater. American Public Health Association/American Water Works Association/Water Environment Federation, Washington DC, USA.
- [14] Sugriwan, I. and O. Soesanto, 2017. Development of TGS2611 methane sensor and SHT11 humidity and temperature sensor for measuring greenhouse gas on peatlands in South Kalimantan, Indonesia. International Conference on Physical Instrumentation and Advanced Materials IOP Publishing. IOP Conf. Series: Journal of Physics: Conf. Series 853.
- [15] L. Saryono Putro, D. Budianta, D. Rohendi, and A. Rejo, "Biomethane Emissions: Measurement in Wastewater Pond at Palm Oil Mill by Using TGS2611 Methane Gas Sensor," *J. Ecol. Eng.*, vol. 20, no. 6, pp. 25–35, Jun. 2019.
- [16] IAEA. 1992. Manual on measurement of methane and nitrous oxide emissions from agriculture. A joint Undertaking by The Food and Agriculture Organization of The United Nations and The International Atomic Energy Agency, Vienna, Austria.
- [17] Lantin, R.S., J.B. Aduna and A.M. Javeliana. 1995. Methane measurements in rice fields. International Rice Research Institute, Los Banos, Manila, Philippines.
- [18] Arif C., B.I. Setiawan, S. Widodo, Rudiyanto, Hasanah and M. Mizoguchi. 2015. Development of artificial neural network models to estimate greenhouse gas emissions from paddy fields with various water regimes. *Jurnal Irigasi*, 10 (1): 1-10 (in Indonesian).
- [19] Haykin, S. 2009. Neural networks and learning machines. New Jersey: Pearson Prentice Hall, pp. 239.
- [20] Yu, J.Y. and J. Yu. 2012. Rainfall time series forecasting based on modular RBF neural network model coupled with SSA and PLS. *Journal of Theoretical and Applied Computer Science*, 6 (2): 3-12.
- [21] Zhijun, Y.U. 2013. RBF neural networks optimization algorithm and application on tax forecasting. *Telkomnika*, 11 (7): 3491–3497.
- [22] Awad, M., H. Pomares, I. Rojas, O. Salameh and Hamdon, M. 2009. Prediction of time series using RBF neural networks: A new approach of clustering. *Int. Arab J. Inf.*, 6 (2): 138–144.
- [23] C. S. K. Dash, A. K. Behera, S. Dehuri, and S.-B. Cho, "Radial basis function neural networks: a topical state-of-the-art survey," *Open Comput. Sci.*, vol. 6, no. 1, Jan. 2016.
- [24] Assi, A.H. 2011. Engineering education and research using MATLAB. [Online]. Available: [www.intechopen.com](http://www.intechopen.com)
- [25] Zhang, H.Q. and J.B. Li. 2012. Prediction of tourist quantity based on RBF neural network. *J. Comput.*, 7 (4): 965–970.
- [26] Fei, Z., D. Luo, Z. He and B. Li. 2012. Atmospheric environmental quality assessment RBF model based on the MATLAB. *Journal of Environmental Protection*, (3): 689-693.
- [27] Dogan, E., A. Ates, and E.C. Yilmaz. 2008. Application of artificial neural networks to estimate wastewater treatment plant inlet Biochemical Oxygen Demand. *Environmental Progress*, 27 (4): 439–446.
- [28] Sofian, I.M., A. Kholid, I. Iskandar and Y. Apriani. 2018. Monthly rainfall prediction based on artificial neural networks with backpropagation and radial basis function. *International Journal of Advances in Intelligent Informatics*, 4 (2): 154-166.
- [29] Comrie, A.C. 1997. Comparing neural networks and regression models for ozone forecasting. *J. Air Waste Manage.*, 47: 653–663.
- [30] Kolehmainen, M., H. Martikainen and J. Ruuskanen. 2001. Neural networks and periodic components used in air quality forecasting. *Atmos. Environ.*, 35: 815–825.
- [31] Walker, E., L.H. Slørdal, C. Guerreiro, F. Gram and K.E. Grønskei. 1999. Air pollution exposure monitoring and estimation. Part II: model evaluation and population exposure. *J. Environ. Monit.*, 1 (4): 321–326.
- [32] Agustin, A., W. Mardiansyah, D. Setiabudidaya and I. Iskandar. 2017. WindSat and RAMA Buoy: A comparison of ocean-atmosphere data. *MATEC Web of Conferences*, doi: 10.1051/matecconf/201710104005.
- [33] Seadi, T. A., D. Rutz, H. Prassl, D. Köttner, D. Finsterwalder, S. Volk and R. Janssen. 2008. Biogas Handbook. University of Southern Denmark Esbjerg, Denmark.
- [34] Drapcho, C. M., N. P. Nhuan, T.H. Walker. 2008. Biofuels engineering proces technology. United States: The McGraw-Hill Companies Inc.
- [35] Rejo, A. 2007. The neural artificial network application to determine sugarcane (*Saccharum officinarum* L) production in PTPN VII PG Cinta Manis. *Jurnal Keteknikan Pertanian*, 21 (4): 413-418 (In Indonesian).
- [36] Wang, H. and X. Xu. 2013. Determination of spread constant in RBF neural network by genetic algorithm. *International Journal of Advancements in Computing Technology (IJACT)*, 5 (9): 719-725, doi: 10.4156/ijact.vol5.issue9.85.
- [37] Haviluddin and I. Tahyudin. 2015. Time series prediction using radial basis function neural network. *Int. J. Electr. Comput. Eng.*, 5 (4): 765 – 771.
- [38] Ahmed, A.A.M. 2017. Prediction of dissolved oxygen in Surma River by biochemical oxygen demand and chemical oxygen demand using the artificial neural networks (ANNs). *Journal of King Saud University–Engineering Sciences*, 29 (2): 151-158.
- [39] Schirmer, W.N., J.F.T. Jucá, A.R.P. Schuler, S. Holland, L.L. Jesus. 2014. Methane production in anaerobic (Brazil) landfill: evaluation in refuse of different ages. *Brazilian Journal of Chemical Engineering*, 31 (02): 373-384.
- [40] Park, J.B.K. and R.J. Craggs. 2007. Biogas production from anaerobic waste stabilisation ponds treating dairy and piggery wastewater in New Zealand. *Water Science and Technology*, 55 (11): 257-264.
- [41] Werner, U., V. Stochr and N. Hees. 1989. Biogas Plant in Animal Husbandry: Application of the Dutchs Guesllechaft fuer Technische Zusemmernarbeit (GTZ) GnbH.
- [42] Deublein, D. and A. Steinhauser. 2008. Biogas from waste and renewable resource. Wiley-VCH Verlag GmbH & Co. KgaA. Weinheim.
- [43] Irvan, B. Trisakti, V. Wongistoni, and Y. Tomiuchi. 2012. Methane emission from digestion of palm oil mill effluent (POME) in a thermophilic anaerobic reactor. *International Journal of Science and Engineering*, 3 (1): 32–35.