

Daftar Pustaka

- Abdoulkader, B. A., Mohamed, B., Nabil, M., Alaoui-Sossé, B., Eric, C., & Aleya, L. (2015). Wastewater Use in Agriculture in Djibouti: Effectiveness of sand filtration Treatments and Impact of Wastewater Irrigation on Growth and Yield of *Panicum maximum*. *Ecological Engineering*, 84, 607–614. <https://doi.org/10.1016/j.ecoleng.2015.09.065>
- Adhikari, J. R., & Lohani, S. P. (2019). Design, installation, operation and experimentation of septic tank – UASB wastewater treatment system. *Renewable Energy*, 143, 1406–1415. <https://doi.org/10.1016/j.renene.2019.04.059>
- Agehara, S., & Warncke, D. D. (2005). Soil Moisture and Temperature Effects on Nitrogen Release from Organic Nitrogen Sources. *Soil Science Society of America Journal*, 69(6), 1844–1855. <https://doi.org/10.2136/sssaj2004.0361>
- Al-karaki, G. N. (2011). Utilization of treated sewage wastewater for green forage production in a hydroponic system. *Emir. J. Food Agric.*, 23(1), 80–94.
- Alemayehu, Y. A., Steyn, J. M., & Annandale, J. G. (2009). Fao-type crop factor determination for irrigation scheduling of hot pepper (*capsicum annum* l.) cultivars. *South African Journal of Plant and Soil*, 26(3), 186–194. <https://doi.org/10.1080/02571862.2009.10639953>
- Allen, R. G., Pereira, L. S., Raes, D., & Smith, M. (1998). Crop Evapotranspiration: Guidelines for Computing Crop Water Requirements. In *FAO Irrigation and Drainage Paper Crop No.56*. Food and Agriculture Organization of the United Nations. <http://www.kimberly.uidaho.edu/water/fao56/fao56.pdf>
- Almeida, A., Carvalho, F., Imaginário, M. J., Castanheira, I., Prazeres, A. R., & Ribeiro, C. (2017). Nitrate removal in vertical flow constructed wetland planted with *Vetiveria zizanioides*: Effect of hydraulic load. *Ecological Engineering*, 99, 535–542. <https://doi.org/10.1016/j.ecoleng.2016.11.069>
- Almuktar, S.A.A.A.N., Scholz, M., Al-Isawi, R. H. K., & Sani, A. (2015). Recycling of domestic wastewater treated by vertical-flow wetlands for irrigating Chillies and Sweet Peppers. *Agricultural Water Management*, 149, 1–22. <https://doi.org/10.1016/j.agwat.2014.10.025>
- Almuktar, S A A A N, Scholz, M., & Sani, A. (2015). Recycling of Domestic Wastewater Treated by Vertical-Flow Wetlands for Irrigating Chillies and Sweet Peppers. *Agricultural Water Management*, 149, 1–22. <https://doi.org/10.1016/j.agwat.2014.10.025>
- Almuktar, Suhad A.A.A.N., Abed, S. N., & Scholz, M. (2017). Recycling of domestic wastewater treated by vertical-flow wetlands for irrigation of two consecutive *Capsicum annum* generations. *Ecological Engineering*, 107, 82–98. <https://doi.org/10.1016/j.ecoleng.2017.07.002>

- Aminifard, M. H., Aroiee, H., Nemati, H., Azizi, M., & Khayyat, M. (2012). Effect of nitrogen fertilizer on vegetative and reproductive growth of pepper plants under field conditions. *Journal of Plant Nutrition*, 35(2), 235–242. <https://doi.org/10.1080/01904167.2012.636126>
- Anandhi, V., & Manicka Chezian, R. (2013). Support Vector Regression to Forecast the Demand and Supply of Pulpwood. *International Journal of Future Computer and Communication*, 2(3), 266–269. <https://doi.org/10.7763/ijfcc.2013.v2.165>
- Bawatharani, T., Mowjood, M. I. M., Dayawansa, N. D. K., & Kumaragamage, D. (2004). Nitrate Leaching As A Function of Fertilization and Irrigation Practices In Sandy Regosols. *Trop. Agric. Res.*, 16, 172–180.
- Bojie, F., Zhijian, Y., Yanglin, W., & Pingwen, Z. (2001). A mathematical model of soil moisture spatial distribution on the hill slopes of the Loess Plateau. *SCIENCE IN CHINA*, 44(5), 395–402.
- Bruun, J., Pugliese, L., Hoffmann, C. C., & Kjaergaard, C. (2016). Solute transport and nitrate removal in full-scale subsurface flow constructed wetlands of various designs treating agricultural drainage water. *Ecological Engineering*, 97(3), 88–97. <https://doi.org/10.1016/j.ecoleng.2016.07.010>
- Chang, J., Wu, S., Dai, Y., Liang, W., & Wu, Z. (2013). Nitrogen removal from nitrate-laden wastewater by integrated vertical-flow constructed wetland systems. *Ecological Engineering*, 58, 192–201. <https://doi.org/10.1016/j.ecoleng.2013.06.039>
- Crites, R. W., Middlebrooks, E. J., & Reed, S. C. (2014). Natural wastewater treatment systems. In *Natural Wastewater Treatment Systems* (Second). CRC Press.
- Cui, L., Feng, J., Ouyang, Y., & Deng, P. (2012). Removal of Nutrients from Septic Effluent with Re-circulated Hybrid Tidal Flow Constructed Wetland. *Ecological Engineering*, 46, 112–115. <https://doi.org/10.1016/j.ecoleng.2012.06.003>
- Disha, A. S., Harun, M. A. Y. Al, Akter, S., Billah, S. M., & Noman, M. A. Al. (2020). Reusing greywater for cultivation of *Capsicum frutescens* and *Calendula officinalis*. *Journal of Environmental Management*, 272(June), 111088. <https://doi.org/10.1016/j.jenvman.2020.111088>
- Dorofki, M., Elshafie, A. H., Jaafar, O., Karim, O. A., & Mastura, S. (2012). Comparison of Artificial Neural Network Transfer Functions Abilities to Simulate Extreme Runoff Data. *2012 International Conference on Environment, Energy and Biotechnology*, 33, 39–44. www.ipcbee.com/vol33/008-ICEEB2012-B021.pdf
- Gaur, N., & Mohanty, B. P. (2013). Evolution of physical controls for soil moisture in humid and subhumid watersheds. *Water Resources Research*, 49(3), 1244–1258. <https://doi.org/10.1002/wrcr.20069>

- Greenway, M. (2005). The role of constructed wetlands in secondary effluent treatment and water reuse in subtropical and arid Australia. *Ecological Engineering*, 25(5), 501–509. <https://doi.org/10.1016/j.ecoleng.2005.07.008>
- Haddis, A., Van der Bruggen, B., & Smets, I. (2020). Constructed wetlands as nature based solutions in removing organic pollutants from wastewater under irregular flow conditions in a tropical climate. *Ecohydrology and Hydrobiology*, 20(1), 38–47. <https://doi.org/10.1016/j.ecohyd.2019.03.001>
- Hong, M., Wai, X., Huong, A., & Ngu, X. (2021). Soil moisture level prediction using optical technique and artificial neural network. *International Journal of Electrical and Computer Engineering*, 11(2), 1752–1760. <https://doi.org/10.11591/ijece.v11i2.pp1752-1760>
- Hu, Y., He, F., Ma, L., Zhang, Y., & Wu, Z. (2016). Bioresource Technology Microbial nitrogen removal pathways in integrated vertical-flow constructed wetland systems. *BIORESOURCE TECHNOLOGY*, 207, 339–345. <https://doi.org/10.1016/j.biortech.2016.01.106>
- Hua, Y., Peng, L., Zhang, S., Heal, K. V., Zhao, J., & Zhu, D. (2017). Effects of plants and temperature on nitrogen removal and microbiology in pilot-scale horizontal subsurface flow constructed wetlands treating domestic wastewater. *Ecological Engineering*, 108(September 2016), 70–77. <https://doi.org/10.1016/j.ecoleng.2017.08.007>
- Jiang, H., & Cotton, W. R. (2004). Soil moisture estimation using an artificial neural network : a feasibility study. *Can. J. Remote Sensing*, 30(5), 827–839.
- Jin, Z., Lv, C., Zhao, M., Zhang, Y., Huang, X., Bei, K., Kong, H., & Zheng, X. (2018). Chemosphere Black Water Collected from the Septic Tank Treated with A Living Machine System : HRT Effect and Microbial Community Structure. *Chemosphere*, 210, 745–752. <https://doi.org/10.1016/j.chemosphere.2018.07.082>
- Jones, R. W., Rathke, S. J., Laird, D. A., & McClelland, J. F. (2013). Real-time Sensing of Soil Nitrate Concentration in The Parts Per Million Range While The Soil is in Motion. *Applied Spectroscopy*, 67(9), 1106–1110. <https://doi.org/10.1366/13-07064>
- Karsoliya, S. (2012). Approximating Number of Hidden layer neurons in Multiple Hidden Layer BPNN Architecture. *International Journal of Engineering Trends and Technology*, 3(6), 714–717.
- Kiiza, C., Pan, S. qi, Bockelmann-Evans, B., & Babatunde, A. (2020). Predicting pollutant removal in constructed wetlands using artificial neural networks (ANNs). *Water Science and Engineering*, 13(1), 14–23. <https://doi.org/10.1016/j.wse.2020.03.005>
- Kodoatie, R.J., Sjarief, R. (2005). *Pengelolaan Sumber Daya Air Terpadu*. Andi.
- Krishnapillai, M., & Ranjan, R. S. (2009). Non-destructive Monitoring of Nitrate

Noncentration in A Laboratory Flow Experiment Using Time Domain Reflectometry (TDR). *Environmental Technology*, 30(1), 101–109.
<https://doi.org/10.1080/09593330802421458>

Li, J., Yoder, R. E., Odhiambo, L. O., & Zhang, J. (2004). Simulation of Nitrate Distribution Under Drip Irrigation Using Artificial Neural Networks. *Irrigation Science*, 23(1), 29–37. <https://doi.org/10.1007/s00271-003-0090-6>

Ling, T. Y., Siew, T. F., & Nyanyi, L. et al. (2010). Quantifying Household wastewater pollutant in Kuching, Malaysia.pdf. *World Applied Sciences Journal*, 8(4), 449–456.

Liu, R., Zhao, Y., Doherty, L., Hu, Y., & Hao, X. (2015). A review of incorporation of constructed wetland with other treatment processes. *Chemical Engineering Journal*, 279, 220–230.
<https://doi.org/10.1016/j.cej.2015.05.023>

Louison, L., Omrane, A., Ozier-Lafontaine, H., & Picart, D. (2015). Modeling plant nutrient uptake: Mathematical analysis and optimal control. *Evolution Equations and Control Theory*, 4(2), 193–203.
<https://doi.org/10.3934/eect.2015.4.193>

Lu, N., Chen, S., Wilske, B., Sun, G., & Chen, J. (2011). Evapotranspiration and soil water relationships in a range of disturbed and undisturbed ecosystems in the semi-arid Inner Mongolia, China. *Journal of Plant Ecology*, 4(1–2), 49–60. <https://doi.org/10.1093/jpe/rtq035>

M.S.N. Chowdhury, F. Hoque, H. M. and A. F. M. J. U. (2015). Vegetative growth and yield performance of four chilli (*Capsicum frutescens*) cultivars. *American-Eurasian Journal of Agricultural & Environmental Sciences*, 15(4), 514–517. <https://doi.org/10.5829/idosi.ajeaes.2015.15.4.12565>

Mander, Ü., Tournebize, J., Espenberg, M., Chaumont, C., Torga, R., Garnier, J., Muhel, M., Maddison, M., Lebrun, J. D., Uher, E., Remm, K., Pärn, J., & Soosaar, K. (2021). High denitrification potential but low nitrous oxide emission in a constructed wetland treating nitrate-polluted agricultural runoff. *Science of the Total Environment*, 779, 146614.
<https://doi.org/10.1016/j.scitotenv.2021.146614>

Manjunatha, M. V., Kumara, B. H. P., Satyareddi, S. A., & Hebbara, M. (2017). Yield, Water Productivity and Economics of Green Chilli as Influenced by Engineered Constructed Wetland Treated and Untreated Domestic Sewage Water. *International Journal of Current Microbiology and Applied Sciences*, 6(4), 2125–2132. <https://doi.org/10.20546/ijcmas.2017.604.250>

Markus, M., Tsai, C. W. S., & Demissie, M. (2003). Uncertainty of Weekly Nitrate-Nitrogen Forecasts Using Artificial Neural Networks. *Journal of Environmental Engineering*, 129, 267–274.

Meda, A., & Cornel, P. (2010). Aerated biofilter with seasonally varied operation modes for the production of irrigation water. *Water Science and Technology*,

61(5), 1173–1181. <https://doi.org/10.2166/wst.2010.059>

Milics, G., Kovács, A. J., Porneczi, A., Nyéki, A., Varga, Z., Nagy, V., Lichner, L., Németh, T., Baranyai, G., & Neményi, M. (2017). Soil moisture distribution mapping in topsoil and its effect on maize yield. *Biologia*, 72(8), 847–853. <https://doi.org/10.1515/biolog-2017-0100>

Miranda, F. R., Gondim, R. S., & Costa, C. A. G. (2006). Evapotranspiration and crop coefficients for tabasco pepper (*Capsicum frutescens* L.). *Agricultural Water Management*, 82(1–2), 237–246. <https://doi.org/10.1016/j.agwat.2005.07.024>

Miyamoto, T., Kameyama, K., & Iwata, Y. (2015). Monitoring Electrical Conductivity and Nitrate Concentrations in an Andisol Field Using Time Domain Reflectometry. *JARQ*, 49(3), 261–267.

Mmolawa, K., & Or, D. (2000). Water and Solute Dynamics Under A Drip-Irrigated Crop Experiments and Analytical Model. *American Society of Agricultural Engineers*, 43(6), 1597–1608.

Mojid, M. A., Hossain, A. B. M. Z., & Ashraf, M. A. (2019). Artificial Neural Network Model to Predict Transport Parameters of Reactive Solutes from Basic Soil Properties. *Environmental Pollution*, 255, 113355. <https://doi.org/10.1016/j.envpol.2019.113355>

Montangero, A., & Belevi, H. (2007). Assessing Nutrient Flows in Septic Tanks by Eliciting Expert Judgement: A promising Method in the Context of Developing Countries. *Water Research*, 41(5), 1052–1064. <https://doi.org/10.1016/j.watres.2006.10.036>

Nair, J. (2008). Wastewater garden - A system to treat wastewater with environmental benefits to community. *Water Science and Technology*, 58(2), 413–418. <https://doi.org/10.2166/wst.2008.368>

Norton-Brandão, D., Scherrenberg, S. M., & van Lier, J. B. (2013). Reclamation of used urban waters for irrigation purposes - A review of treatment technologies. *Journal of Environmental Management*, 122, 85–98. <https://doi.org/10.1016/j.jenvman.2013.03.012>

Ostad-Ali-Askari, K., Shayannejad, M., & Ghorbanizadeh-Kharazi, H. (2017). Artificial Neural Network for Modeling Nitrate Pollution of Groundwater in Marginal Area of Zayandeh-rood River, Isfahan, Iran. *KSCE Journal of Civil Engineering*, 21(1), 134–140. <https://doi.org/10.1007/s12205-016-0572-8>

Pandey, A., Prasad, R., Srivastava, J. K., & Pandey, S. N. (2012). Retrieval of Soil Moisture by Artificial Neural Network Using X-band Ground Based Data. *Russian Agricultural Sciences*, 38(3), 230–233. <https://doi.org/10.3103/S1068367412030147>

Peace, I. C., Uzoma, A. O., & Ita, S. A. (2015). Effect of Learning Rate on Artificial Neural Network in Machine Learning. *International Journal of*

Engineering Research and Technology (IJERT), 4(2), 359–363.
www.ijert.org

- Pérez, M. M., Hernández, J. M., Bossens, J., Jiménez, T., Rosa, E., & Tack, F. (2014). Vertical flow constructed wetlands: Kinetics of nutrient and organic matter removal. *Water Science and Technology*, 70(1), 76–81.
<https://doi.org/10.2166/wst.2014.183>
- Radi, Murtiningrum, Ngadisih, Muzdrikah, F. S., Nuha, M. S., & Rizqi, F. A. (2018). Calibration of Capacitive Soil Moisture Sensor (SKU:SEN0193). *Proceedings - 2018 4th International Conference on Science and Technology, ICST 2018*, 1, 1–6.
<https://doi.org/10.1109/ICSTC.2018.8528624>
- Rahi, M. A., Faisal, A. A. H., Naji, L. A., Almuktar, S. A., Abed, S. N., & Scholz, M. (2020). Biochemical Performance Modelling of Non-Vegetated and Vegetated Vertical Subsurface-Flow Constructed Wetlands Treating Municipal Wastewater in Hot and Dry Climate. *Journal of Water Process Engineering*, 33, 101003. <https://doi.org/10.1016/j.jwpe.2019.101003>
- Rito, B. A. B. R. (2017). Pemanfaatan Constructed Wetland Sebagai Bagian Dari Rancangan Lansekap Ruang Publik Yang Berwawasan Ekologis Studi Kasus Houtan Park China. *Jurnal Sains & Teknologi Lingkungan*, 9(1), 46–59.
<https://doi.org/10.20885/jstl.vol9.iss1.art5>
- Rosdiana, Asaad, M., & Mantau, Z. (2011). *Teknologi Budidaya Cabai Rawit*. Balai Pengkajian Teknologi Pertanian Gorontalo.
<http://repository.pertanian.go.id/>
- Rosyidah, E., & Wirosoedarmo, R. (2013). Pengaruh Sifat Fisik Tanah Pada Konduktivitas Hidrolik Jenuh di 5 Penggunaan Lahan (Studi Kasus di Kelurahan Summersari Malang). *Agritech*, 33(3), 340–345.
- Saeed, T., & Sun, G. (2012). A review on nitrogen and organics removal mechanisms in subsurface flow constructed wetlands: Dependency on environmental parameters, operating conditions and supporting media. *Journal of Environmental Management*, 112, 429–448.
<https://doi.org/10.1016/j.jenvman.2012.08.011>
- Sahoo, G. B., Ray, C., & Wade, H. F. (2005). Pesticide Prediction in Ground Water in North Carolina Domestic Wells Using Artificial Neural Networks. *Ecological Modelling*, 183, 29–46.
<https://doi.org/10.1016/j.ecolmodel.2004.07.021>
- Sam-Amoah, L. K., poku Darko, R., & Owusu-Sekyere, J. D. (2013). Water Requirement, Deficit Irrigation and Crop Coefficient of Hot Pepper (*Capsicum frutescens*) Using Irrigation Interval of Four (4) Days. *Journal of Agricultural and Biological Science*, 5(5), 72–78.
- Sintio, T., Steven, & Yennimar. (2021). Implementation of Water Conditions in Soil with Artificial Neural Network Method using Backpropagation. *Journal*

of Computer Networks , Architecture and High Performance Computing,
3(2), 161–166.

- Stefanakis, A., Akrotos, C. S., & Tsihrintzis, V. A. (2014). *Vertical Flow Constructed Wetlands: Eco-engineering Systems for Wastewater and Sludge Treatment* (First Edit). Elsevier.
- Sylla, A. (2018). Domestic Wastewater Treatment Using Vertical Flow Constructed Wetlands Planted with *Arundo Donax*, and The Intermittent Sand Filters Impact. *Ecohydrology and Hydrobiology*, 20, 48–58. <https://doi.org/10.1016/j.ecohyd.2018.11.004>
- Tee, H. C., Seng, C. E., Noor, A. M., & Lim, P. E. (2009). Performance comparison of constructed wetlands with gravel- and rice husk-based media for phenol and nitrogen removal. *Science of the Total Environment*, 407(11), 3563–3571. <https://doi.org/10.1016/j.scitotenv.2009.02.017>
- UN-HABITAT. (2008). *Constructed Wetlands Manual*. UN-HABITAT Water for Asian Cities Programme Nepal, Kathmandu.
- Vos, J. G. M., & Duriat, A. S. (1995). Hot pepper (*Capsicum spp.*) production on Java, Indonesia: toward integrated crop management. *Crop Protection*, 14(3), 205–213. [https://doi.org/10.1016/0261-2194\(95\)00013-C](https://doi.org/10.1016/0261-2194(95)00013-C)
- Vymazal, J. (2007). Removal of nutrients in various types of constructed wetlands. *Science of the Total Environment*, 380, 48–65. <https://doi.org/10.1016/j.scitotenv.2006.09.014>
- Vymazal, J. (2011). Constructed Wetlands for Wastewater Treatment: Five Decades of Experience. *Environ. Sci. Technol.*, 45, 61–69. <https://doi.org/10.1021/es101403q>
- Walker, J. P., & Houser, P. R. (2002). Evaluation of the OhmMapper Instrument for Soil Moisture Measurement. *Soil Sci. Soc. Am. J.*, 66, 728–734.
- Wang, Y., Zhang, Y., Yu, X., Jia, G., Liu, Z., Sun, L., Zheng, P., & Zhu, X. (2021). Grassland soil moisture fluctuation and its relationship with evapotranspiration. *Ecological Indicators*, 131, 108196. <https://doi.org/10.1016/j.ecolind.2021.108196>
- Weerakoon, G. M. P. R., Jinadasa, K. B. S. N., Manatunge, J., Wijesiri, B., & Goonetilleke, A. (2020). Kinetic modelling and performance evaluation of vertical subsurface flow constructed wetlands in tropics. *Journal of Water Process Engineering*, 38(May), 101539. <https://doi.org/10.1016/j.jwpe.2020.101539>
- Wu, H., Wang, X., He, X., Zhang, S., Liang, R., & Shen, J. (2017). Effects of root exudates on denitrifier gene abundance, community structure and activity in a micro-polluted constructed wetland. *Science of the Total Environment*, 598, 697–703. <https://doi.org/10.1016/j.scitotenv.2017.04.150>

- Xu, J., Shi, Y., Zhang, G., Liu, J., & Zhu, Y. (2014). Effect of hydraulic loading rate on the efficiency of effluent treatment in a recirculating puffer aquaculture system coupled with constructed wetlands. *Journal of Ocean University of China*, 13(1), 146–152. <https://doi.org/10.1007/s11802-014-2000-3>
- Xuan, Z., & Ammarin, N. C. (2009). Initial Test of a Subsurface Constructed Wetland with Green Sorption Media for Nutrient Removal in On-site Wastewater Treatment Systems. *Water Qual Expo Health*, 1, 159–169. <https://doi.org/10.1007/s12403-009-0015-6>
- Yamamoto, S., & Nawata, E. (2005). *Capsicum frutescens* L. in Southeast and East Asia, and its dispersal routes into Japan. *Economic Botany*, 59(1), 18–28. [https://doi.org/10.1663/0013-0001\(2005\)059\[0018:CFLISA\]2.0.CO;2](https://doi.org/10.1663/0013-0001(2005)059[0018:CFLISA]2.0.CO;2)
- Yan, C., Zhang, H., Li, B., Wang, D., Zhao, Y., & Zheng, Z. (2012). Effects of influent C/N ratios on CO₂ and CH₄ emissions from vertical subsurface flow constructed wetlands treating synthetic municipal wastewater. *Journal of Hazardous Materials*, 203–204, 188–194. <https://doi.org/10.1016/j.jhazmat.2011.12.002>
- Yau, S. K., & Ryan, J. (2010). Response of rainfed safflower to nitrogen fertilization under Mediterranean conditions. *Industrial Crops and Products*, 32(3), 318–323. <https://doi.org/10.1016/j.indcrop.2010.05.008>
- Yu, L., Gao, W., Shamshiri, R. R., Tao, S., Ren, Y., Zhang, Y., & Su, G. (2021). Review of research progress on soil moisture sensor technology. *International Journal of Agricultural and Biological Engineering*, 14(4), 32–42. <https://doi.org/10.25165/j.ijabe.20211404.6404>
- Zotarelli, L., Dukes, M. D., Romero, C. C., Migliaccio, K. W., & Morgan, K. T. (2014). Step by Step Calculation of the Penman-Monteith Evapotranspiration (FAO-56 Method). *Institute of Food and Agricultural Sciences. University of Florida*, 1–14. [http%22//edis.ifas.ufl.edu/ae459](http://edis.ifas.ufl.edu/ae459)