

Research Papers published in Journals

Department of Soil and Water Conservation Engineering

1. Andhale Anil Nanasaheb, Parmar Hiteshkumar V and Pappu Kumar Paswan. (2020). Spatial and temporal variation of normalized difference vegetation index (NDVI) in the Uben river basin of Gujarat. Journal of Pharmacognosy and Phytochemistry. 9(5):1716-1721.
2. Andhale Anil Nanasaheb, Parmar Hiteshkumar V, Pappu Kumar Paswan. (2020). Soil adjusted vegetation index (SAVI), in the Uben river basin of Gujarat. International Journal of Chemical Studies. 8(5):693-698
3. Bhatu, H., Rank, H D, Ram, V. and Chvda, J. (2020). Simulating waterbalance components Behavior to the climate change for Sasoi river basin.The Pharma Innovation Journal 2020; 9(9): 405-407.
4. Patel R. J, Vekariya P. B.,Vadar H. R., Rank H. D.,Pandya P. A. and J. M.Modhavadiya(2020). Hydraulic performance evaluation of double nozzle full circle micro-sprinkler irrigation system under semi-arid conditions,International Research Journal of Modernization in Engineering Technology and Science, 03(1) : 39-50.
5. Pandya P. A., Kumarkhaniya R., Parmar R. and Ajani P. (2020).Meteorological Drought Analysis Using Standardized Precipitation Index,Current World Environment, Vol. 15, No. (3), 477-486.
6. Pandya P. A., Ghosiya S. M., Pithiya V. H., Dudhatra S. P. (2020). Effect of Rainfall on Productivity of Cotton, Emergent Life Science Research, 6(1):56-63.
7. Rank, P H ,Vekariya, P B and Rank, H D (2020). Climate Change Impact on Hydrologic System in Aji River Basin. Research Biotica, 2(2):30-39.
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9. Vekariya P. B. and Rank H. D. (2020) Aquifer mapping of uben river basin by Vertical electrical sounding resistivity technique, International Research Journal of Modernization in Engineering Technology and Science, 02(12) :983-995.

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12. Parmar, H.V., Gontia, N.K. (2022). Evapotranspiration Estimation Using Surface Energy Balance-Based Evaporative Fraction for Water Management in Canal Irrigation Command. J Indian Soc Remote Sens 50, 373–384.
13. Parmar, H. V. and Gontia, N. K. (2021). Estimation of Evapotranspiration using Remote Sensing and Surface Energy Balance Algorithm for Land (SEBAL) in Canal Command. Journal of Agricultural Engineering. 58(3):274-285.
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15. Patel R. J., Vekariya P. B., Vadar H. R., Rank H. D., Pandya P. A. and Modhvadiya J. M. (2021). Hydraulic performance evaluation of double nozzle full circle micro-sprinkler irrigation system under semi-arid conditions. International Research Journal of Modernization In Engineering Technology And Science, 3(1): 39-50.
16. Patel, R J and Rank H D (2020). Water use efficiency of wheat under different irrigation regimes using high discharge drip irrigation system Agricultural Engineering Today. 44(2): 19-31. doi.org/10.52151/aet2020442.1518.
17. Trushal L. Dharsenda; Vaibhav M. Ram and Hitesh V. Parmar. (2021). Determination of the morphological characteristics of Upper Ozat River Basin. Green Farming Vol. 12(1&2):185-188
18. Vekariya P. B., Rank H. D. and Patel R. J. (2021). Evaluation of recharge basins technique in Junagadh region. International Research Journal of Modernization in Engineering Technology and Science, 3(12): 143-149.
19. Vekariya P. B., Rank H. D. and Patel R. J. (2021). Conjunctive water use for higher return of wheat crop in South Saurashtra region. International Research Journal of Modernization in Engineering Technology and Science, 3(12): 797- 803.

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26. Gojiya, K M., Rank, H D, Chauhan, P. M., Patel, D V, Satasiya, R M and Prajapati, G V (2023). Remote Sensing and GIS Applications in Soil Salinity Analysis: A Comprehensive Review. *International Journal of Environment and Climate Change*, 13(11): 2149-2161.
27. Vithlani Nipa and Parmar H.V. (2023). Soil Moisture Estimation Using Sentinel-1 SAR Data and Land Surface Temperature in Bhadar Canal, Gujarat State. *Frontiers in Crop Improvement*. 11 : 2425-2434.
28. Vithlani Nipa and Parmar H.V. (2023). Irrigation Scheduling of Wheat Crop using Cropwat Model in Bhadar Canal Command Area of Saurashtra Region. *Frontiers in Crop Improvement*. 11 : 2792-2796.
29. Gojiya, K. M., Karangiya, B A. Chavda, S K. Gaadhe, S K, Gojiya, D. K., and Rank, H D (2024). Soil Moisture Modelling Using Remote Sensing and Artificial Neural

- Networks: A Study of Devbhumi Dwarka Region, Gujarat, India. *International Journal of Environment and Climate Change*, 14(1): 1-13.
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 31. Hirpara, P., Rank, H. D., Patel, D V, Tiwari, M. K. and Parmar, H. V. (2023). The competing impacts of climate change on reductions of water quality parameters. *Journal of Soil and Water Conservation* 22(3): 260-268. DOI:10.5958/2455-7145.2023.00033.4.
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 34. Patel, R.J. Rank, P.H. Vekariya, P.B. Vadar, H.R. Parmar, H.V. , Rank, H.D. Damor, P.A. Modhvadiya, J.M. (2023) Study on physicochemical properties of clay loam soil of Junagadh region, . *International Research Journal of Modernization in Engineering Technology and Science*, 5(6). www.irjmets.com
 35. Rank, P.H., Vaghasiya, D.R., Lunagaria, M.M., Patel, R.J., Tiwari, M.K. and Rank, H.D., (2023). Climate change impacts on water flux dynamics in Shingoda basin having agriculture and forest ecosystems: A comprehensive analysis. *Journal of Agrometeorology*, 25(3), pp.397-403.
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- and levels of nitrogen. The Pharma Innovation Journal; 12(12): 3584-3588. ISSN (E): 2277- 7695 ISSN (P): 2349-8242 (NAAS Rating: 5.23)
38. Rathod, A. D., Modhavadia, J. M., Patel, R. J., Thanki, R. B. and Bhedarada, N. D. (2023). Enhancing yield, quality and nutrient content of green gram (*Vignaradiata* L.) through phosphorus fertilization and thiourea application. The Pharma Innovation Journal; 12(12): 3651-3654. ISSN (E): 2277- 7695 ISSN (P): 2349-8242. (NAAS Rating: 5.23)
 39. Sojitra, M. A., Satasiya, R. M., Chauhan, P. M., Rank, H. D., Parmar, H. V., Patel, D. V., and Prajapati, G. V. (2023). Economics of Raising Seedling of Broccoli (*Brassica oleracea* L. var. Italica) in Protected Structure. International Journal of Economic Plants 2022, 9(4):290-293. Doi: [HTTPS://DOI.ORG/10.23910/2/2022.0499](https://doi.org/10.23910/2/2022.0499).
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73. Patel, R. J., Parmar, H. V., Rank, P. H., Vaghasiya, D. R., Rank, H. D., Vadar, H., and Vekariya, P. B. (2024). Simulating the influence of crop cultivation practices and slope

- gradients on curve number and runoff generation in semi-arid flat catchments. *Journal of the Institution of Engineers (India) Series A*, 105(3).
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Research papers in National / International conference / seminar proceedings

1. Pandya P. A, H. D. Rank and Mashru H. H. (2020). High Discharge Drip Irrigation Design for Summer Season. Proceedings of the National Conference on Emerging Trends In Civil Engineering(ETCE-2020) organized during June 26 - 27, 2020. Pp. 243-250 by Department of Civil Engineering, K.L.E.F Deemed to be University, Guntur, India. (ISBN: 978-93-5406-364-0).
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4. Sojitra M. A., Satasiya R. M., Chauhan P. M. and Rank H. D. (2022) Economics of Seedling Raising of Broccoli (*Brassica oleracea* L, var. *italica*) in Protected Structure in 31st National Conference On “Innovative resource management approaches for coastal and inland ecosystems to sustain productivity and climate resilience” on October13–15, 2022 Organized by Navsari Agricultural University, Navsari, Gujarat, India.
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