CURRICULUM VITAE

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TEACHING EXPERIENCE

- ✓ Total Teaching Experience : More than 22 Years
- ✓ Working as Associate Professor at IIT (ISM), Dhanbad from 2021 to till date.

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- ✓ Serving as HOD of Department of Civil Engineering from 01-07-2024 to till date.
- ✓ Worked as Assistant Professor at **IIT (ISM), Dhanbad** from 2013 to 2021 (8 Years).
 - Founder Faculty of the Civil Engineering Department at IIT (ISM), Dhanbad Extensively Involved in development of Department – Various Laboratories, Department Office, BOCS for B.Tech. in Civil Engg. Courses Syllabus and procuring necessary Infrastructure facilities.
- ✓ Earlier worked as Faculty in various reputed Institutes for 10 Years in the capacity of Associate Professor - 5.5 Years and Assistant Professor - 4.5 Years from 2003 to 2013.

Details of Publications :

Publications in SCI / SCIE Journals Indexed in Web of Science :

P. Agrawal, J. Sinha, N.Jangre, F.Kumar, Kamalkant, A.Sinha, A. Singh, A. Banerjee, A.S. Venkatesh, Pasupuleti S., 2025, "Developing an efficient and optimized irrigation plan

under varying water-supply regimes", **Ain Shams Engineering Journal**, Volume 16, Issue 2, February 2025, 103272, **(I.F.- 6.0)**, **Q1**.

- Singh A., K.S. Durbha, A.Sinha, Pasupuleti S., 2024, "Comparative assessment of fluoride and arsenic mobilization mechanisms among the groundwater of the major affected river basins of India", Water Supply, Vol 24 No 9, 2969 doi:10.2166/ws.2024.196.(I.F.- 1.9), Q3.
- A. Banerjee, A.Chatterjee, A. Singh, Pasupuleti S., V. Uddameri, 2024, "A risk assessment framework utilizing bivariate copula for contaminate monitoring in groundwater", Environmental Science and Pollution Research, 31:49744–49756 https://doi.org/ 10.1007/ s11356-024-34417-0, (I.F.- 5.19), Q2.
- Nune, R., Western, A.W., George, B.A., Gummadi, S., Pasupuleti, S., Ragab, R., Sreenath D., 2024, "An assessment of future climatic and anthropogenic impacts on the hydrological system of a semi-arid catchment, Irrigation and Drainage, 1–27. https:// doi.org/ 10.1002/ird.3018. (I.F.- 1.7), Q3.
- Kumari , A.Sinha , D.B. Singh , Pasupuleti S., 2024 "Source apportionment and health risk assessment in chromite mining area: Insights from entropy water quality indexing and Monte Carlo simulation", Process Safety and Environmental Protection, 184, 2024, Pages 526-541, https://doi.org/10.1016/j.psep.2024.01.091 (I.F.- 7.8), Q1.
- S. Kumar, P. Das, N. Mandal, Chanda K., Pasupuleti S., 2024 "Joint probabilistic behaviour of climate extremes over the Godavari River basin, India", International Journal of Climatology, https://doi.org/10.1002/joc.8486, (I.F.- 3.65), Q2.
- ★ T. Chatterjee, U.Gogoi, A. Samanta, A.Chatterjee, M.K.Singh, Pasupuleti S., 2024, "Identifying the Most Discriminative Parameter for Water Quality Prediction Using Machine Learning Algorithms", Water, 16(3),481; https://doi.org/10.3390/w16030481 (I.F.- 3.4), Q2.
- A. Raj, A.Sinha, A. Singh, Pasupuleti S., 2023, "Assessment and prediction of hexavalent chromium vulnerability in groundwater by Geochemical modelling, NOBLES Index an d Random Forest Model", Science of the Total Environment, https://doi.org/10.1016/ j.scitotenv.2023.167570 (I.F. - 10.75), Q1.
- A.Chawla, K.Sarkar, R. Abhishek, S.Chawla, Pasupuleti S., S. Mishra, 2023, "A geo technical approach to compare different slope stabilization techniques for failed slope in the Darjeeling hills, India", Environmental Earth Sciences 82: 376 https:// doi.org/ 10.1007/s12665-023-11054-3 (I.F. - 3.11). Q2.
- Singh R.K., S.Kumar, Pasupuleti S., V.G.K.Villuri, A.Agarwal, 2023, "Evaluating evolutionary algorithms for simulating catchment response to river discharge", Journal of Water and Climate Change, jwc2023083.,https://doi.org/10.2166/wcc.2023.083 (I.F. - 2.8). Q3.

- Kumar S., Chanda K., Pasupuleti S., 2023, "Association of tropical daily precipitation extremes with physical covariates in a changing climate", Stochastic Environmental Research & Risk Assessment, https://doi.org/10.1007/s00477-023-02433-0 (I.F.-3.82). Q1.
- Kumar S., Chanda K., Pasupuleti S., 2022, "Pre- and post-1975 scaling relationships of monsoon and non-monsoon hourly precipitation extremes with coincident temperature across urban India", Journal of Hydrology, (published online), 612 (2022), 128180, https://doi.org/10.1016/j.jhydrol.2022.128180. (I.F. - 6.71). Q1.
- Chowdary, P.P., Kumar, V.V.G., and Pasupuleti, S., A. Banerjee, Venkatesh A.S., 2022, "A holistic approach for understanding the status of water quality and causes of its deterioration in a drought-prone agricultural area of Southeastern India", Environmental Science and Pollution Research, (Published online), https://doi.org/10.1007/s11356-022-22906-z. (I.F.- 5.19). Q2.
- Pasupuleti S., Singha S.S., Singha S, Kumar S., Singh R., Indramani D., 2022, "Groundwater characterization and non-carcinogenic and carcinogenic health risk assessment of nitrate exposure in the Mahanadi River Basin of India", Journal of Environmental Management, (published online), 319, (2022) 115746, https:// doi.org/ 10.1016/j.jenvman.2022.115746 (I.F.- 8.91). Q1.
- Agrawal, P; Sinha, A; Pasupuleti, S; Sinha, J; Chatterjee, A., Kumar, S., 2022, "Mathematical Approach to Evaluate the Extent of Groundwater Contamination using Polynomial Approximation", Water Supply, https://doi.org/10.2166/ws.2022.219 (I.F.-1.9) Q3.
- Akash P. B., Lutukurthi D.N.V.V. Konda, Pasupuleti,S; Krishna S.D., 2022, "Synthesis of MgO/MgSO4 nano catalyst by thiourea–nitrate solution combustion for biodiesel production from waste cooking oil", Renewable Energy, 190, pp.474-486. https://doi.org/ 10.1016/j.renene.2022.03.127 (I.F.- 8.63) Q1.
- Singha S.S., Singha S, Pasupuleti S., Venkatesh A.S., 2022, "Knowledge-driven and machine learning decision tree-based approach for assessment of geospatial variation of groundwater quality around coal mining regions, Korba district, Central India.", Environmental Earth Sciences, 81:36.(published online), https://doi.org/ 10.1007/ s12665-021-10147-1 (I.F. – 3.11). Q2.
- S. Kumar, R.K. Guntu, A. Agarwal, V.G.K.Villuri, Pasupuleti S., D.R. Kaushal; A. K. Gosain, A. Bronstert, 2022, "Multi-objective optimization for storm water management by green-roofs and infiltration trenches to reduce urban flooding in central Delhi", Journal of Hydrology, Volume 606, 2022,127455. (published online), https://doi.org/10.1016/j.jhydrol.2022.127455. (I.F.- 6.71). Q1.
- A. Banerjee , Sarath Chandra K.J., Pasupuleti S., A.C.S. Rao, 2022, "Alternative Relationships to Enhance the Applicability of Non-linear Filtration Models in Porous Media", Acta Geophysica, (published online), https://doi.org/ 10.1007/s11600-022-00950-0 (I.F.- 2.29). Q3.

- A. Banerjee , Pasupuleti S., K. Mondal, M.M. Nezhad, 2021, "Application of data driven machine learning approach for modelling of non-linear filtration through granular porous media", International Journal of Heat and Mass Transfer, (published online), 179 (2021) 121650, https://doi.org/10.1016 /j.ijheatmasstransfer. 2021.121650 (I.F.- 5.43). Q1.
- Singha S., Pasupuleti S., Singha S.S., Singh R., Kumar S., 2021, "Prediction of groundwater quality using efficient machine learning technique", Chemosphere, 276 (2021) 130265 (published online), https://doi.org/10.1016/j.chemosphere.2021.130265 (I.F.- 8.94). Q1.
- S. Kumar, A. Agarwal, G. Abinesh, V.G.K.Villuri, Pasupuleti S., D. Kumar; D.R. Kaushal; A. K. Gosain; B.S. Kumar, 2021, "Impact of climate change on storm water drainage in urban areas", Stochastic Environmental Research and Risk Assessment (published online), https://doi.org/10.1007/s00477-021-02105-x. (I.F.- 3.82). Q1.
- A. Banerjee , Pasupuleti S., Singh, M.K., Dandu, J.M., 2021, "Influence of Fluid Viscosity and Flow Transition over Non-Linear Filtration through Porous Media", Journal of Earth System Science, 130 201, (published online), https://doi.org/10.1007/s12040-021-01686-z. ((I.F. - 1.91).Q3.
- S. Kumar, A.Agarwal, V.G.K.Villuri, Pasupuleti S., D.Kumar, D.R. Kaushal, A.K. Gosain, A. Bronstert, B.S. Kumar, 2021, "Constructed wetland management in urban catchments for mitigating floods", Stochastic Environmental Research and Risk Assessment, (published online), https://doi.org/10.1007/s00477-021-02004. (I.F.- 3.82). Q1.
- P. Agrawal, A.Sinha, S.Kumar, A. Agarwal, A,Banerjee, V.G.K.Villuri, A.C.S. Rao, R.Dwivedi, V.V.R. Dera, J.Sinha, **Pasupuleti S., 2021**, "Exploring Artificial Intelligence Techniques for Groundwater Quality Assessment", **Water**^{*}, 13 (9),1172; (Published online), https://doi.org/10.3390/w13091172. (I.F.- 3.53). Q2.
- A. Banerjee, Pasupuleti S., V.G.K. Villuri, A.K. Pushkar, R. Nune, S. Dutta, 2021, "Nonlinear filtration through stratified porous media: An experimental approach to model the volumetric flow Rate and pressure drop relationship", Journal of Porous Media, 24, 10, pp:17-30 (published online), DOI:10.1615/ JPor Media.2021035082. (I.F.- 1.78). Q3.
- Singh, R. K., Villuri, V. G. K., and Pasupuleti, S. 2021, "Evaluation of water quality and risk assessment by coupled geospatial techniques and statistical approach along lower Damodar river", International Journal of Environmental Science and Technology -(Published online), https://doi.org/10.1007/s13762-021-03644-0 (I.F.- 3.51). Q3.
- Singha S., Pasupuleti S., Singha S.S., Kumar S., 2020, "Effectiveness of groundwater heavy metal pollution indices studies by deep-learning ", Journal of Contaminant Hydrology, 235 (11), 103718. (Published online), https://doi.org/10.1016/j.jconhyd. 2020.103718. (I.F.- 4.18). Q2.
- K. Pandey, M. K. Singh, Pasupuleti S., 2020, "Solution of 1D Space Fractional Advection-Dispersion Equation with Nonlinear Source in Heterogeneous Medium", Journal of Engineering Mechanics, 146(12): 04020137 (published online), https://doi.org / 10.1061/(ASCE)EM.1943-7889.0001870. (I.F.- 3.12). Q2.

- R. K. Singh, A. Soni, S. Kumar Pasupuleti S., V.G. K. Villuri, 2020, "Zonation of flood prone area in integrated framework of hydrodynamic model and ANN", Water Supply, 21 (1): 80–97. https://doi.org/10.2166/ws.2020.252 (I.F.- 1.9). Q3.
- Singha S., Pasupuleti S., 2020, "Delineation of groundwater prospect zones in Arang block, Raipur district, Chhattisgarh, Central India, using Analytical Network Process", Journal of the Geological Society of India, 95 (6), pp.609-615, https://doi.org/ 10.1007/s12594-020-1487-z. (I.F.- 1.46). Q4.
- M. K. Singh, R. K. Singh, Pasupuleti S., 2020, "Study of forward-backward solute dispersion profiles in a semi-infinite groundwater system", Hydrological Sciences Journal, 65 (8),pp. 1416-1429 (published online), https://doi.org /10.1080/ 02626667. 2020.1740706. (I.F.- 3.94). Q2.
- R. K. Singh, V. G. K. Villuri, Pasupuleti S., Rajesh N.,2020, "Hydrodynamic modeling for identifying flood vulnerability zones in lower Damodar river of eastern India", Ain Shams Engineering Journal^{*}, (published online), https://doi.org/10.1016/j.asej. 2020. 01.011. (I.F.- 4.79). Q1.
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- Kumar S., Chanda K., Pasupuleti S., 2020, "Spatio-temporal Analysis of Extreme Indices derived from Daily Precipitation and Temperature for Climate Change Detection over India", Theoretical and Applied Climatology. (published online), https://doi.org /10.1007 /s00704-020-03088-5 (I.F.- 3.40). Q3.
- Singha S, Pasupuleti S., Sandilya D K, Singha S.S, Singh R, Venkatesh A.S., 2019, "An analytical hierarchy process-based geospatial modeling for delineation of potential anthropogenic contamination zones of groundwater from Arang block of Raipur district, Chhattisgarh, Central India", Environmental Earth Sciences, 78 (24): 694. (published online), https://doi.org/10.1007/s12665-019-8724-z. (I.F.- 3.11). Q2.
- Singha S.S., Pasupuleti S., Singha S, Singh R, Venkatesh A.S., 2019, "A GIS-based modified DRASTIC approach for geospatial modeling of groundwater vulnerability and pollution risk mapping in Korba district, Central India", Environmental Earth Sciences, 78 (21): 628. (published online), https://doi.org/10.1007/s12665-019-8640-2 (I.F.- 3.11). Q2.
- Singha S.S., Pasupuleti S., Singha S, Singh R, Venkatesh A.S., 2019, "Analytic Network Process based approach for delineation of groundwater potential zones in Korba district, Central India using remote sensing and GIS" Geocarto International (published online):1-22. https://doi.org/10.1080/10106049.2019.1648566. (I.F.- 3.45). Q2.
- Banerjee, A. Pasupuleti, S., Singh, M.K., Dutta S.C., Kumar, G.N.P., 2019, "Modeling of Flow through Porous Media over the Complete Flow Regime", Transport in Porous Media,129 (1), pp.1-23. https://doi.org/10.1007/s11242-019-01274-2. (I.F.- 3.61). Q2.

- R.K. Singh, V.G.K. Villuri, Pasupuleti, S., 2019, "Assessment of parameters and preparation of hydrodynamic model for lower Damodar Basin using geomatic techniques", Mausam, 70, 4, pp. 815-824. DOI: 551.509.331 : 556.166 .(I.F. 0.90). Q4.
- A.Chawla, Pasupuleti,S., S.Chawla, A. C. S. Rao, K.Sarkar, R. Dwivedi, 2019, "Landslide Susceptibility Zonation Mapping: A Case Study from Darjeeling District, Eastern Himalayas, India", Journal of the Indian Society of Remote Sensing, 47 (3), pp. 497-511. https://doi.org/10.1007/s12524-018-0916-6. (I.F.- 1.89). Q4.
- Banerjee, A., Pasupuleti, S., 2019, "Effect of convergent boundaries on post laminar flow through porous media", Powder Technology, 342, pp.288-300. https://doi.org/ 10.1016/ j.powtec.2018.09.085. (I.F.- 5.64). Q1.
- Saha, A.K., Sinha, A., Pasupuleti, S., 2019, "Modification, Characterization and Investigations of Key Factors Controlling the Transport of Modified Nano Zero Valent Iron (nZVI) in Porous Media", Environmental Technology, 40 (12), pp.1543-1556. https://doi.org/10.1080/09593330.2018.1426637. (I.F.- 3.47). Q3.
- V.G.K. Villuri, Pasupuleti, S., K. Jain, A.Gairola, R.K. Singh, 2018, "Hydrodynamic simulation of a cloudburst event in Asi Ganga Valley of Indian Himalayan region using MIKE11 and GIS techniques", Mausam, 69, 4, pp.523-534. DOI: 551.577.37 (235.243). (I.F. 0.90). Q4.
- A.Chawla, S.Chawla, Pasupuleti, S., A. C. S. Rao, K. Sarkar, R. Dwivedi, 2018, "Landslide Susceptibility Mapping in Darjeeling Himalayas, India", Advances in Civil Engineering*, Article ID 6416492, 17 pages, https://doi.org/10.1155/2018/6416492. (I.F.- 1.84). Q3.
- R.Singh, A. S. Venkatesh, T. H. Syed, L. Surinaidu, Pasupuleti, S., S. P. Rai, M. Kumar, 2018, "Stable isotope systematics and geochemical signatures constraining groundwater hydraulics in the mining environment of the Korba Coalfield, Central India", Environmental Earth Sciences, 77: 548. Published Online, https://doi.org/10.1007/s12665-018-7725-7. (I.F.- 3.11). Q2.
- Banerjee, A., Pasupuleti, S., Singh, M.K., Kumar, G.N.P., 2018, "An Investigation of Parallel Post-Laminar Flow through Coarse Granular Porous Media with the Wilkins Equation". Energies^{*}, 11, 320, pp.1-19. DOI:10.3390/en11020320. (I.F.- 3.25). Q3.
- Singaraju, S., Pasupuleti, S., Hernandez, E.A., Uddameri, V., 2018, "Prioritizing Groundwater Monitoring in Data Sparse Regions using Atanassov Intuitionistic Fuzzy Sets (A-IFS)", Water Resources Management, 32(4), pp.1483–1499. https://doi.org/ 10.1007/ s11269-017-1883-3. (I.F.- 4.42). Q1.
- Banerjee, A., Pasupuleti, S., Singh, M.K., Kumar, G.N.P., 2018, "A study on the Wilkins and Forchheimer equations used in coarse granular media flow", Acta Geophysica, 66(1), pp.81-91. https://doi.org/10.1007/s11600-017-0102-1. (I.F.- 2.29). Q3.
- Kumar, G.N.P., Pasupuleti, S., 2012, "Evaluation of groundwater resources and estimation of stage of groundwater development in a basin – A case study", Irrigation and Drainage, 61(1), pp.129-139. DOI: 10.1002/ird.628. (I.F.- 1.7). Q3.

Papers Published as Book Chapter:

- S. Shrivastava, Pasupuleti S., and V.N. Khatri., 2024. "Seepage and "Stability Analysis of Khamhar Pakut Earthen Zoned Dam: A Case Study", (Chapter 23), Lecture Notes in Civil Engineering, Vol. 546, Manish Pandey et al. (Eds): Flood Forecasting and Hydraulic Structures, 978-981-97-9167-5, 617105_1_En.
- Chowdary, P.P., Kumar, S., Kumar, S., Villuri, V.G.K., Pasupuleti S., 2023. "Exploring Geospatial Technology in Kadiri Basin of Ananthapuramu District, A.P. for Demarcation of GWPZ and Identification of Recharge Structures', Geospatial and Soft Computing Techniques. Lecture Notes in Civil Engineering, vol 339. Springer. https://doi.org/10.1007/978-981-99-1901-7_18.
- Kumar, S., Chanda, K., Pasupuleti S., 2021. "Influence of Air Temperature on Local Precipitation Extremes Across India", Climate Change Impacts on Water Resources: Hydraulics, Water Resources and Coastal Engineering, Water Science and Technology Library 98, Springer, https://doi.org/10.1007/978-3-030-64202-0_14149-160.
- Agrawal P., Sinha A., Pasupuleti S., Nune R., Saha S., 2021, "Geospatial Analysis Coupled with Logarithmic Method for Water Quality Assessment in Part of Pindrawan Tank Command Area in Raipur District of Chhattisgarh", Climate Impacts on Water Resources in India. Water Science and Technology Library, vol 95. pp: 57-78. Springer, Cham. https://doi.org/10.1007/978-3-030-51427-3_6.
- Banerjee, A., Pasupuleti, S., Singh, M.K., Kumar, G.N.P., 2019, "An Investigation of Parallel Post-Laminar Flow through Coarse Granular Porous Media with the Wilkins Equation", Emerging Advances in Petrophysics Porous Media Characterization and Modeling of Multiphase Flow, MDPI, pp:180-198. ISBN 978-3-03897-795-7.
- Banerjee, A., Pasupuleti, S., Kumar, G.N.P., 2018, "A Critical Study on the Applicability of Forchheimer and Wilkins Equations for Nonlinear Flow through Coarse Granular Media. Water Quality Management, Water Science and Technology Library, Springer, Vol. 79, pp. 307-316.
- Banerjee, A., Pasupuleti, S., Kumar, G.N.P., Dutta, S.C., 2018. "A Three-Dimensional CFD Simulation for the Nonlinear Parallel Flow Phenomena through Coarse Granular Porous Media", Lecture Notes in Mechanical Engineering, Springer, pp. 469-480.
- Chawla, S., Chawla, A., Pasupuleti, S., 2017. A Feasible Approach for Landslide Susceptibility Map using GIS. Geo-Risk 2017: Impact of Spatial Variability, Probabilistic Site Characterization, and Geohazards, ASCE, pp: 101-110.

Book Published:

A book entitled "Water and its Sustainability in Mining and other Environment: Vision 2050" Edited by B.C. Sarkar, Pasupuleti, S. and Sreevalsa K., ISBN 978-93-5156-850-6 published by ISM, Dhanbad in 2014.

Publications in SCOPUS Journal:

- Pasupuleti, S., Sandilya D. K., S.Singha., S.S. Singha, S.Saha, 2019, "Delineation of groundwater potential zones utilising geospatial techniques in Kadiri watershed of Anantapur district, Andhra Pradesh, India", Journal of Environmental Biology^{*}, 40, pp.61-68. http://doi.org/10.22438/jeb/40/1/MRN-935.
- Singha, S., Pasupuleti, S., Singha, S., Villuri, V.G.K., 2017, "An integrated approach for evaluation of groundwater quality in Korba district, Chhattisgarh using Geomatic techniques", Journal of Environmental Biology^{*}, 38(5), pp.865-872. http://doi.org/ 10.22438/jeb/38/5/MRN-600.
- Kumar, G.N.P., Sujatha, P., Pasupuleti, S., 2010. "Groundwater level forecasting using feed forward neural network trained with different algorithms", ISH Journal of Hydraulic Engineering, 16(1), pp.20-35.
- Pasupuleti, S., Satya N.T., Kumar, G.N.P, 2010. "Evaluation of subsurface water quality by estimation of physico - chemical parameters – A case study", Asian Journal of Microbiology, Biotechnology and Environmental Sciences*, 12(4), pp 839 - 842.
- Pasupuleti, S., Satya N.T., 2010. "Hydro geochemical study of groundwater in Sarada river basin in Andhra Pradesh", Asian Journal of Microbiology, Biotechnology and Environmental Sciences*, 12(3), pp 623-626.

Publications in Other Journals:

- Singha S.S., Pasupuleti S., 2020, "Hydrogeochemical modeling based approach for evaluation of groundwater suitability for irrigational use in Korba district, Chhattisgarh, Central India", SN Applied Sciences, 2:1551 | https://doi.org/10.1007/s42452-020-03357-y
- Kumar, G.N.P., Pasupuleti, S., Jaya C.K., Sujatha, P., 2011, "Evaluation of Groundwater Potential zones and Identification of Groundwater Augmenting Structures in a basin - A case study", Journal of Indian Water Resources Society,31,(1-2), pp 1-11.
- Pasupuleti, S., Sarala,C., Kumar, R.V., Satya N.T., Kumar, G.N.P., 2008, "Value addition for sewage effluent generated from the designed Sewage treatment system - A case study", Journal of Applied Hydrology, XXI(3-4), pp 21-28.
- Pasupuleti, S., Kumar, G.N.P., Sarala, C., Chowdary, P.P., 2008, "Application of Remote Sensing and Geographical Information Systems techniques for integrated management of Boothpur watershed in A.P.", Journal of Applied Hydrology, XXI (1-2), pp 65-74.

* - Open Access Journal

Papers presented in International / National Conferences:

- S. Shrivastava, Pasupuleti, S. and V.N. Khatri, 2023, "Seepage and Stability Analysis of Khamhar Pakut Earthen Zoned Dam: A Case Study", International Conference - HYDRO 2023, organized by NIT Warangal during December 21-23.
- Chowdary, P.P., Kumar S., Kumar S., Kumar, V.V.G., and Pasupuleti, S., 2021, "Exploring Geospatial Technology in Kadiri basin of Ananthapuramu district, A.P. for demarcation of GWPZ and Identification of Recharge Structures", International Conference - HYDRO 2021, organized by NIT Surat during December 23-25.
- Kumar, S., Chanda, K. and Pasupuleti, S., 2020, "Spatio-temporal variation of extreme indices derived from observed and reanalysis products for detection of climate change across India", EGU General Assembly 2020 in the online format Sharing Geoscience Online, Vienna, Austria during May 4-8.
- R. K. Singh, Pasupuleti, S., Kumar,V.V.G. 2020, "Investigation on Spatio-temporal Changes in River Morphology of Lower Damodar between Durgapur barrage to Bardhhaman town over a time Period of 1990- 2015", International Conference "Roorkee Water Conclave" Organised by IIT Roorkee during February 26 – 28.
- Chowdary, P.P., Kumar,V.V.G., and Pasupuleti, S., 2020, "Quantitative and qualitative analysis of groundwater resources in drought prone watershed in Anantapur district of Andhra Pradesh, India", National conference on "Recent trends in Environmental Pollution and disaster risk reduction", Organized by ESE dept., IITISM and FICCI at New Delhi during February 6-7.
- Kumar, S., Chanda, K. and Pasupuleti, S., 2018, "Influence of Air Temperature on Local Precipitation Extremes across India", International Conference - HYDRO 2018, organized by NIT Patna during December 19-21.
- Saha, S., Pasupuleti, S., 2018. "Groundwater prospect zonation of Kadiri watershed in the drought prone areas of Anantapur district, Andhra Pradesh - A GIS based approach using AHP Technique", International Conference on Sustainable Technologies for Intelligent Water Management, Organized by DWRDM, IIT Roorkee and Indian Water Resources Society (IWRS) during February 16-19.
- Singha, S.S, Pasupuleti, S., Singha,S. and Venkatesh, A. S., 2018. "Assessing groundwater vulnerability using DRASTI-LM model in Katghora block of Korba District, Chhattisgarh, India", International Conference on Sustainable Technologies for Intelligent Water Management, Organized by DWRDM, IIT Roorkee and Indian Water Resources Society (IWRS) during February 16-19.
- Singh, R.K., Kumar, V.V.G. and Pasupuleti, S., 2018. "Assessment and study Hydrology of Floods in Lower Damodar Basin using GIS Techniques", International Conference on

Sustainable Technologies for Intelligent Water Management, Organized by DWRDM, IIT Roorkee and Indian Water Resources Society (IWRS) during February 16-19.

- Saha,S. and Pasupuleti, S., 2017. "Identification of groundwater potential zones using geospatial techniques in Kadiri watershed of Anantapur region in Andhra Pradesh, India", 7th International Groundwater Conference on Groundwater vision 2030-"Water security, challenges & climate change adaptation", organized by NIH Roorkee in New Delhi during December 11-13.
- Singh, R.K., Pasupuleti, S., and Kumar, V.V.G., 2017. "Flood Routing of Lower Damodar using GIS and HEC-RAS", 7th International Groundwater Conference on Groundwater vision 2030-"Water security, challenges & climate change adaptation", organized by NIH Roorkee in New Delhi during December 11-13.
- Chawla, S., Chawla, A. and Pasupuleti, S., 2017. "A Feasible Approach for Landslide Susceptibility Map using GIS", GEO-RISK 2017, organized by ASCE, in Denver, Colarado, USA during June 4-7.
- Banerjee, A., Pasupuleti, S., Kumar, G.N.P. and Dutta, S.C., 2016. "A Three-Dimensional CFD Simulation for the Nonlinear Parallel Flow Phenomena Through Coarse Granular Porous Media", International conference on Applications of Fluid Dynamics, organized by IIT(ISM), Dhanbad, Jharkhand during December19-21.
- Banerjee, A., Pasupuleti, S., and Kumar, G.N.P., 2016. "A Critical Study on the Applicability of Forchheimer and Wilkins Equations for Nonlinear Flow Through Coarse Granular Media", International Conference on Water Environment, Energy & Society, organized by AISECT University, Bhopal, India during March 15-18.
- S. Pasupuleti, Pradeep Kumar, and K. Jayachandra, 2014, "Quantification of effect of convergence in porous media flow", 5th International Conference on Porous Media and Their Applications in Science, Engineering and Industry at Kona, Hawaii, USA during June, 2014.

Ph.D. Guidance :

<u>Awarded</u> : 08 No.

(03 No. Sole Guide + 02 No. Principal Guide + 03 No. Co-Guide)

Dr. Ashes Banerjee (2014DR0124) was **awarded Ph.D.** on **04 – 02 – 2020** for thesis entitled "Applicability and Behavior of the Forchheimer and Wilkins Equations for the Velocity and Hydraulic Gradient Characteristics in Post-Laminar Flow through Porous Media subjected to Parallel and Convergent Boundaries".

Dr. Soumya S. Singha (2014DR1085) was **awarded Ph.D.** on **17 – 12 – 2020** for thesis entitled "Integrated Geospatial Modeling for Groundwater Vulnerability Assessment and Risk Mapping of Coal Mining Region, Korba district, Chhattisgarh, India".

Dr. Sudhakar Singha (2014DR1086) was **awarded Ph.D.** on **06 – 09 – 2021** for thesis entitled "Development of a geospatial framework coupled with advanced data driven techniques for the impact assessment of anthropogenic pollution on groundwater resources in Chhattisgarh, India".

Dr. Ravindra Kumar Singh (2016DR0048) was **awarded Ph.D.** on **02 – 12 – 2021** for thesis entitled *"Hydrodynamic Modeling to Demarcate Flood-Prone Areas & Subsurface Water Contamination Zones along the Lower Damodar River using Geomatic Techniques".*

Dr. Amit Chawla (2015DR1018) was **awarded Ph.D.** on **05 – 09 – 2022** for thesis entitled "Analysis, Modelling and Mitigation Methods for Landslides in Darjeeling region, West Bengal – A Geospatial and Geotechnical Approach".

Dr. Purushottam Agrawal (2015DR1174) was **awarded Ph.D.** on **17 – 10 – 2022** for thesis entitled "Optimal Irrigation Planning for Command Area of Pindrawan Tank in Chhattisgarh, India".

Dr. Sachidanand Kumar (17DR000533) was **awarded Ph.D.** on **03 – 04 – 2023** for thesis entitled "Spatial and Temporal Characteristics of Hydrological Extremes across India under Climate Change".

Dr. P. Prabhakara Chowdary (18DP000363) was awarded Ph.D. on 24 – 04 – 2023 for thesis entitled "A GIS-Based Modelling and Analysis of Groundwater in Drought Prone Region of Part of Southern India".

<u>Under Progress</u> : 07 No.

Ms. Aparna Singh (20DR0024) (Co-Guide - ChE Dept.)

"Mitigation of groundwater contamination using hybrid techniques".

Mr. Subodh Shrivastava (21DR0190) (Principal Guide - CE Dept.)

"Seepage and Stability analysis of Earthen and Rockfill Dam using Physical, Mathematical and Numerical Models".

Ms. Jugdambe Sharma (22DR0101) (Principal Guide - CE Dept.)

"Application of Geospatial technologies in identifying and mitigating water resources issues in mining regions across India".

Ms. Rajshri Chaurasia (22DR0321) (Principal Guide - CE Dept.)

"Delineation of groundwater contamination zones and remediation strategies using novel techniques".

Mr. Ritesh Ranjan (23DR0138) (Principal Guide - CE Dept.)

"Quantitative and Qualitative aspects of water resources utilizing geospatial and hybrid techniques".

Mr. Sabyasachi Mukherjee (23DR0304) (Principal Guide - CE Dept.)

" Groundwater flow modelling and remediation strategies using hybrid techniques".

Ms. Ankita (24DR0033) (Principal Guide - CE Dept.)

"Ground and Surface Water contamination using hybrid techniques".

Newly Joined Scholars:

Mr. Ajay Prajapati (Part-Time) (Principal Guide - CE Dept.)

Mr. Nitish (Project JRF) (Principal Guide - CE Dept.)

PDF Mentorship : 02 No. (Co - Mentor) 01 No. (Mentor)

Dr. Satish Kumar- "Preparation of Master Plan - 2030 for Dhanbad Municipal Corporation".

Dr. Ashwin Singh "Investigating the natural and man-made impact on the contaminant enrichment processes in the aquifers of Jharkhand".

Dr. A. Bhuvaneswarai Devi "Assessment of the spatial distribution and health risks associated with heavy metals and tracer elements of Groundwater in Jharkhand".

M.Tech. Guidance : 08 No.

B.Tech. Guidance : 12 No.

Awards and Honours Received :

- Received BEST TEACHER GOLD MEDAL AWARD for the Services rendered as a Faculty in Civil Engg. Department in K. L. University (erstwhile K. L. College of Engg.), Vaddeswaram, Guntur District for the Academic Year 2006-2007.
- > MHRD Scholarship during M.E. Programme.
- > Advisor, UPSC
- > Member, BIS (Water Resources)

Patents:

> "A novel canal gate design with secured casing and automated operations" is under preparation.

Research and Development Projects :

- SERB, DST, Govt. of India funded research project in 2019 entitled "Assessment of groundwater quality and zonation of Kadiri watershed in the drought prone areas of Anantapur region" for Rs. 28.76 Lakhs in the capacity of Principal Investigator was completed.
- DMC funded project "Preparation of Master Plan-2020 for Dhanbad Municipal Corporation" for Rs. 32.15 Lakhs in the capacity of Co-PI was completed in 2023.
- Vedanta funded project "Preparation of Catchment treatment plan" for Rs. 35.40 Lakhs in the capacity of Co-PI was completed in 2021.
- SCCL funded project "Scientific study on stability of proposed diversion of Bokkalavagu nallah over goaved out Longwall Panels of GDK-10 Incline on the surface and assessment of Impact of blasting in RG OCP-I on embankment of proposed divertion nallah and assessment of water danger to Adriyala Longwall Project, RG OCP-I Expansion" for Rs. 9.73 Lakhs in the capacity of Principal Investigator was completed in 2022.
- IIT(ISM) funded project "Parametric Study on flow through Porous media", under FRS for Rs. 5.3 Lakhs in the capacity of Principal Investigator was completed in 2017.
- IIT(ISM) funded project "Non-Linear modeling for converging flow through Porous media", under TEQIP-II for Rs. 2.0 Lakhs in the capacity of Principal Investigator was completed in 2018.

- IIT(ISM) funded project "Identification of suitable sites and designing of environmental friendly rainwater harvesting structures for catching the rain where it falls in the IIT(ISM) campus area" for Rs. 8.8 Lakhs in the capacity of one of Principal Investigator was completed in 2022.
- HCL funded "Hydrological Study at Chandmari Lease of Hindustan Copper Ltd, Khetri Nagar, Rajasthan" for Rs. 14.07 Lakhs in the capacity of Principal Investigator was completed in 2023.
- DST (NRDMS) funded "Regional Centre for Geodesy" for Rs. 140.90 Lakhs in the capacity of Co-PI is under progress.
- SERB, DST, Govt. of India funded research project in 2024 entitled "Application of hybrid techniques for generation of Decision Support System for quantifying the population vulnerability due to geogenic contaminants and development of costeffective remediation methods, in the mining-affected and surface-groundwater interaction zones in the Damodar basin" for Rs. 36.12 Lakhs in the capacity of Principal Investigator is under progress.

Industrial Consultancy Projects :

- Carried out project entitled "Techno economic study for transportation of ash from NTPC Korba to Bishrampur & Manikpur open cast mines for its utilization" funded by NTPC for Rs. 24.0 Lakhs.
- Carried out project entitled "Third party evaluation of DPR for water supply project under JMADA" funded by JMADA for Rs. 19.96 Lakhs.
- Project entitled "To conduct an independent study on assessment & validation of minewise water to ensure optimum and gainful utilization of mine water" funded by WCL for Rs. 47.77 Lakhs was completed.
- Project entitled "A comprehensive run-off management study inside the mining lease areas of Bolani Ores Mines" funded by SAIL for Rs. 34.96 Lakhs was completed.
- Project entitled "Hydrological Study/ Nallah Diversion Study at Gare-Palma S-2 Coal Mine Project, Tamnar block of Raigarh district, C.G." funded by MAHAGENCO for Rs. 29.95 Lakhs was completed.
- Project entitled "Tailing Dam Leakage Study at Khetri Copper Complex" funded by HCL for Rs. 17.60 Lakhs was completed.
- Project entitled "Study to verify Mine-wise availability and Potential of Mine Water for Community use in BCCL" funded by BCCL for Rs. 79.95 Lakhs is under progress.

- Project entitled "Comprehensive Hydrological Study to assess the impact of Nalas and Damodar River on Kalyaneswari Tasra Mining Pvt. Ltd. Mining area, Tasra, Sindri" funded by KTMPL for Rs. 177 Lakhs is under Progress.
- Project entitled "Hydrological Study for the Gare Palma Sector-I Coal mines, Tamnar, Raigarh, CG" funded by JPL for Rs. 89.777 Lakhs is under Progress.

Outreach Programmes:

- MHRD, Govt. of India funded GIAN programme One week short term course entitled "Geo informatics and Geo computational Modeling for Water Resources Engineering and Environmental Science" for Rs 5.44 Lakhs was organized during September 17 – 22, 2018 at IIT(ISM), Dhanbad in the capacity of PI.
- Organized One Professional Development Programme entitled "Recent Advances in Water Resources and Environmental Engineering Computation" during 22-26 December,2015 at ISM IIIF, Kolkata in the Capacity of Co-Coordinator.
- Organized 2-days Online training programme on "Analysis & Application of opensource Remote Sensing data using Google Earth Engine" during 07-08 July,2022 in the capacity of Co-Coordinator.
- DST funded Rs. 10 Lakhs for conducting 21 days Winter School (Level-1) for 2021-2022 on "Geospatial Science and Technologies" was organized from 10 February to 02 March, 2023 under National Geospatial Program (NGP) in the Capacity of Coordinator.
- DST sanctioned Rs. 11 Lakhs for conducting 21 days Winter School (Level-2) for 2023-2024 on "Geospatial Science and Technologies" under National Geospatial Program (NGP) in the Capacity of Coordinator.
- MoE, Govt. of India funded GIAN programme Two week short term course entitled "Geospatial Intelligence for Natural Resources Management and Disaster Mitigation" for Rs 9.96 Lakhs will be organized during 3 March to 12 March, 2025 at IIT(ISM), Dhanbad in the capacity of PI.

MOU Signed:

Instrumental in Signing MOU between IIT (ISM), Dhanbad and Texas Tech University Lubbock, USA on 28-12-2015 along with Prof. Venki Uddameri, Director, Water Resource Center, Texas Tech University, Lubbock, USA.

International Collaborations:

Prof. Venki Uddameri, Texas Tech University / Lamar University USA – Jointly conducted training courses including GIAN Short term Program and have a Joint Publication.

Prof. Mohaddeseh M. Nezhad, University of Warwick, UK – Have a Joint Publication.

Prof, Biswajeeth Pradhan, University of Technology, Sydney-Planning to conduct a joint training programme and working on joint Publications.

Other Accomplishments:

- Actively involved in Organizing a National Conference entitled "Water and its sustainability in mining and other environment - Vision 2050 (WSME 2014)" during 28-29 March 2014.
- Established two Labs completely Fluid Mechanics Lab and Hydraulics and Hydraulic Machines Lab and involved in development of Water Resources Engineering Lab at Civil Engineering Department.
- Coordinator of WST, CWRM Involved in development and various activities of the Centre right from Inception.
- Reviewed three **Text books** on Flow in Open Channels, Fluid Mechanics and Engineering Geology by leading authors published by **Mc Graw Hill Education (I) Pvt. Ltd.**
- Delivered Expert lectures in Training Programs / Faculty Development Programs organized by Environmental Science and Engg., Dept, Applied Mathematics Dept. and Mining Engg. Dept. at IIT(ISM), Dhanbad.
- Attended workshops /training programs organized at IIT Roorkee, BMTPC and IIT(ISM), Dhanbad.

Membership of Professional Societies :

Life Member of Indian Society for Technical Education (MISTE)

Life Member of Indian Association of Hydrologists (MIAH)

Life Member of Indian Water Resources Society (MIWRS)

Life Member of Association of Hydrologists of India (MAHI)

Life Member of Indian Society for Hydraulics (MISH)

Software Knowledge :

ArcGIS, ERDAS Imagine, TNT mips, SMS, GMS, WMS, Visual modflow, C, C++, Java, .NET.

ACADEMIC QUALIFICATIONS

> Ph.D. – Civil Engineering from Sri Venkateswara University, Tirupati in 2011.

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- > M.E. Hydrology and Water Resources Engineering from Anna University, Chennai in 2002.
- > B.Tech. Civil Engineering from Acharya Nagarjuna University, Guntur in 2000.

Courses Taught at P.G. Level

(M.Tech. - Water Resources Management / Civil Engineering)

- ✓ Engineering Hydrology
- ✓ Engineering Hydrology and Hydraulics
- ✓ Hydrogeology and Well Hydraulics
- ✓ Geoinformatics for Civil Engineering
- ✓ Irrigation Management
- ✓ Water Resources Systems Analysis
- ✓ Channel and River Hydraulics
- ✓ E.I.A. of Water Resources Projects
- ✓ Watershed Management
- ✓ C and C++ Computer Programming

Courses Taught at U.G. Level :

(B.Tech.- Civil Engineering)

- ✓ Fluid Mechanics
- ✓ Water Resources Engineering I
- ✓ Water Resources Engineering II
- ✓ Hydraulics and Hydraulic Machines
- ✓ Open Channel and River Hydraulics
- ✓ Hydrology and Hydraulic Structures
- ✓ Water Resources Engineering Design and Drawing
- ✓ Building Materials and Construction
- ✓ Environmental Studies
- ✓ Basics of Soil Mechanics
- ✓ Geo -Technical Engineering-II
- Engineering Mechanics
- ✓ Solid Mechanics-I
- ✓ Solid Mechanics-II
- ✓ Remote Sensing and GIS
- ✓ Surveying

Administrative Responsibilities :

Department Level :

Present:

- > Head, Department of Civil Engineering (July 2024 to till date)
- > JRF Selection Committee member
- Chairman, Doctoral Scrutiny Committee (DSC) for JRFs
- Member of Departmental Faculty Screening Committee (DFSC)

Former:

- Secretary, Departmental Advisory Committee (DAC) (2015 2023)
- Faculty In-charge Time Table
- Faculty In-Charge Department Library
- Faculty In-Charge Store and Stock Verification
- Faculty In-Charge -Technical and Cultural Fest
- Faculty In-Charge Water Resources Engineering Lab
- Faculty In-Charge Fluid Mechanics Lab
- Faculty In-Charge Hydraulics and Hydraulics Machines Lab
- Faculty In-Charge Computer Lab
- Member, Departmental Under Graduate Committee (DUGC)
- Member of Departmental Research Committee (DRC)
- Member of Departmental Tender Advisory Committee (TAC)
- Member of Departmental Purchase Advisory Committee (DPAC)
- > Member, Board of Courses Studies (BOCS) for B.Tech. (Civil Engineering) program
- Vice-President, Civil Engineering Society
- Coordinator- B.Tech. Engineering Graphics Course
- Member of Survey Committee
- > Tabulator End examination
- Moderator UG Courses
- > Coordinator, Department Documentation Cell
- > Performed the duties as **HOD**, **CE** (**CD**) on several occasions whenever entrusted.

Institute Level:

Present:

- > Coordinator WST Division, Centre for Water Resource Management (CWRM)
- > Co-Coordinator Geospatial Technology Group (GTG)
- Member of maintenance of artificial recharge and rain water harvesting structures in the IIT (ISM) campus
- Secretary, Centre Advisory Committee (CWRM)
- > Chairman of various Institute Level Committees
- > Performed the duties as Head, CWRM (CD) on several occasions.
- > Member of Internal Works Committee

Former:

- > Member of Centre for Societal Mission (May, 2017 May, 2021)
- > Chief Warden Emerald Hostel (September, 2018 June, 2020)
- > Warden Jasper Hostel (June, 2017 August, 2018)
- Treasurer, Scolomin Club

Participation in Co-Curricular activities:

- > Moderator, ESE Dept. (UG and PG Courses)
- > Sister Dept. member for selection of JRF's (AM and ESE Dept.)
- > Sister Dept. member for DSC of JRF's (AM, Mech, ME, MME and ESE Dept.)
- > Sister Dept. member of DPAC for ESE Dept.
- Sister Dept. member for M.Tech. Project evaluation for ESE Dept.

Inter-Institutional responsibilities – Represented IIT (ISM), Dhanbad:

- Visited IIT Madras, IIT Bhubaneswar and SERC, Chennai for collecting information for development of various labs at IIT(ISM) with other faculty member in 2013.
- Carried out Survey work in different villages of Sahibgunj district as a part of Ganga Gram Project with other faculty members in 2016.
- Visited various companies in Bangalore and Chennai for Placement related work with other faculty member in 2017.

Participation in Academic Activities Outside the Institute:

> Expert member for Engineers recruitment for Coal India Limited at Kolkata in 2016.

- Expert member for selection of Scientist in Jharkhand Space Application Centre at Ranchi in 2015.
- > Institute Representative during JEE Advanced Examination, 2018.
- > Question paper setter for J.N.T. University, Hyderabad in 2017, 2018 and 2019.
- Member, Board of Examiners for Ph.D. Thesis evaluation for S.V. University, Tirupati in 2018.
- > Acted as Micro Observer in Lok Sabha General Elections during 2014 and 2019.
- Acted as External Examiner for evaluation of M.Tech. dissertation Viva-voce examination at Department of Water Engineering and Management, Central University of Jharkhand in 2022.
- > Delivered Expert Lecture at HCL, Khetri Nagar in May, 2023.
- > Delivered Expert Lecture at CIMFR (CSIR Lab), Dhanbad in July 2024.
- Acted as External Examiner for evaluation of Ph.D. dissertation at Department of Water Engineering and Management, Central University of Jharkhand in 2024.
- Acted as External Examiner for evaluation of Ph.D. dissertation at Department of Civil Engineering, NIT Jamshedpur, S.V. University Tirupati, GITAM University in 2024, *IIT Bombay in 2025.*
- > Delivered Expert Lecture at PVUN, Ranchi (a subsidiary of NTPC) in January 2025.
- > Delivered Key Note address in International Conference SRISTI-2025.

Reviewer of Journals :

- ✓ Natural Hazards Review (ASCE)
- ✓ Journal of Hydrology (Elsevier)
- ✓ Environmental Monitoring and Assessment (Springer)
- ✓ Computer Modeling in Engineering & Sciences (TSP)
- ✓ Arabian Journal of Geosciences (Springer)
- ✓ Water (MDPI)
- ✓ SN Applied Sciences (Springer)
- ✓ International Journal of Environmental Research and Public Health (MDPI)
- ✓ Water Supply (IWA)
- ✓ Computers and Geosciences (Elsevier)
- ✓ Applied Sciences (MDPI)
- ✓ Environmental Earth Sciences (Springer)
- ✓ Groundwater for Sustainable Development (Elsevier)

- ✓ Geocarto International (Taylor & Francis)
- ✓ International Journal of River Basin Management (Taylor and Francis)
- ✓ Environmental Research (Elsevier)
- ✓ Geomatics, Natural Hazards and Risk (Taylor and Francis)
- ✓ Environmental Science and Pollution Research (Springer)
- ✓ Journal of Hydrology : Regional Studies (Elsevier)
- ✓ Science of the Total Environment (Elsevier)

DECLARATION

I hereby declare that all the information and particulars furnished are true to the best of my knowledge and belief.

Place : Dhanbad

Date : 17 - 02 - 2025

SRINIVAS PASUPULETI