

Dr. Prabeer Kumar Parhi

Assistant Professor

Department of Civil Engineering

Personal Information:

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ORCID ID: <https://orcid.org/0000-0003-1034-3800>

Journal Papers: 22

Conference Papers: 13

Sponsored Projects: 0

Book: 3

Book Chapters: 4

Doctoral Students (Completed): 2

Doctoral Students (Submitted): 1

Doctoral Students (Undergoing): 2



Brief Profile: A doctorate degree in Hydrology and have M. Tech degree in hydrology from IIT Roorkee. Have both teaching as well as field knowledge of Water resources engineering. I have worked in flood forecasting and flood plain mapping. I have published many research papers in international as well as national conferences. I have guided 3 Ph. D research scholar and 54 M.Tech students.

Educational Qualifications:

- **Doctor of Philosophy (Ph. D)** in Engineering, IIT Roorkee, 2008
- **Master of Engineering** in Hydrology, IIT Roorkee, 2003.
- **Bachelor of Technology** in Civil Engineering

Courses Taught:

Civil Engineering Materials, Building Construction, Engineering Hydrology, Civil Engineering Drawing, Irrigation Engineering

Additional Roles/ Responsibility:

In addition to the above I take additional roles and responsibilities as and when assigned to me by the administration.

Articles Published:

1. Parhi, P.K. (2022). "Optimization of Returns from Land and Water Resources of A River Basin: A Case Study" Journal of Water Engineering and Management, Vol. 3, Issue 3, International Journal,

2. Kumar, R, Kumari, P, Parhi, P.K., Tripathi, V.K., Singh, A. (2021). "Evaluating water supply risk in the middle reaches of Subarnarekha river basin by using WEAP model" *Indian Journal of Environmental Protection*, Vol. 4, No 8, August 2021.
3. Kumar, S, Parhi, P.K, Kumar, P, Agrawal, U.K (2021). "Zone Wise Optimal Operation Policy and Evaluation of System Performance Measures" *Journal of The Institution of Engineers (India): Series A*, Springer, online publication, Vol. 102, Page 1129-1138
4. Kumari, P, Parhi, P.K and Bharti, B (2021), "Optimal hydropower generation of Maithon multipurpose reservoir system" *Lakes and Reservoirs Science, Policy and Management for Sustainable Use*" John Wiley & Sons Australia, Ltd, Published 11th June, 2021, Online ISSN: 1440-1770, Vol 26, Issue 2, DOI: 10.1111/lre.12364
5. Kumar, R, Kumari, P, Parhi, P.K., Tripathi, V.K., Singh, A (2020), "Modelling future water supply and demand in Jharkhand region of Subarnarekha River basin by using WEAP model with RCP 4.5" *Ecology, Environment and Conservation*, No: 26(4): 2020; PP 1597-1605; ISSN 0971-765X
6. Tirky, N, Parhi, P.K, Lohani, A.K and Chandniha, S.K. (2021), "Analysis of precipitation variability over Satluj Basin, Himachal Pradesh, India", *Journal of Water and Climate Change*, ISSN 2040-2244, E ISSN 2408-9354. Published on 01.02.2021, Vol. 12, Issue 1, ISSN 2040-2244; E ISSN 2408-9354; doi: 10.2166/wcc.2020.136
7. Kumari, P, Parhi, P.K and Bharti, B (2019), "Policy Design for Optimizing the Hydropower generation Potential of Maithon Multipurpose Reservoir System", *Journal of Engineering and Advanced Technology*, Vol. 9, 99-108
8. Kumar, D, Tripathi, V. K and Parhi, P.K, (2018), "Flood Flow Modelling and Embankment Protection of Mahanadi River Using HEC-RAS", *i-manager's Journal on Future Engineering and Technology*, i-manager's Publications, Vol. 13 · No. 4
9. Mayoor, M, Kumari Anjani, Mahapatra, S, Parhi, P. K, Singh, H.P (2018), "Comparison of Four Precipitation Based Drought Indices in Marathwada Region of Maharashtra, India", *International Journal of Advance and Innovative Research*, Volume 5, Issue 4 (X): October-December, Indian Academicians and Researchers Association
10. Kumari, A, Mahapatra, S, Singh, H.P., Parhi, P.K. (2018), "Flood Risk Monitoring of Koshi River Basin in North Plains of Bihar State of India, Using Standardized Precipitation Index", *International Journal of Advance and Innovative Research*, Volume 5, Issue 3 (I) : July – September, Indian Academicians and Researchers Association
11. Parhi, P.K (2018), *Flood Management in Mahanadi Basin using HEC-RAS and Gumbel's Extreme Value Distribution*, *Journal of The Institution of Engineers (India): Series A*, Springer, Vol. 99(4), 751-755, ISSN 2250-2149, DOI 10.1007/s40030-018-0317-4
12. Parhi, P.K (2017), *Improving Water Application Efficiency of Irrigation Borders Using Modified Water Front Advance-Time Relation*, *International Journal of Agricultural Research*, Science Alert Publication, Vol 12:03, 115-122, pISSN: 1816-4897, DOI: 10.3923/ijar.2017.115.122

13. Parhi, P.K (2016), "An improvement to Waterfront Advance-time Relationship for Irrigation Boards" ICID Journal on Irrigation and Drainage", ICID, Jhon Wiley and Sons Publication, 65, 568-573, Impact Factor 0.707; DOI: 10.1002/ird
14. Parhi, P.K (2015), "Evolution of Morphology of River Brahmaputra due to Vegetative Cover Changes", Global journal for Research Analysis, Vol. 4, Issue 8 (August), PP 35-37. ISSN: 2277-8160
15. Parhi, P.K (2014), "Managing Water Scarcity in Irrigated Agriculture: Critical Issues Concerning Future Needs", Jamshedpur Research Review, International Research Journal, Volume 2, Issue VIII, September to November, Page 50-59
16. Parhi, P. K, Sankhua, R. N (2014), "Beyond the Transboundary River-Issues of Riparian Responsibilities", Journal of The Institution of Engineers (India): Series A, Springer, Volume 94, Issue 4 (2014), Page 257-261
17. Parhi, P.K (2014), "Another look at Kostiaikov, modified Kostiaikov and revised modified Kostiaikov infiltration models in water resources applications". Published in International Journal of Agricultural Science, International Scholars Journals Vol. 4(3), PP. 138-142. www.internationalscholarsjournals.org.
18. Parhi, P.K (2013) "HEC-RAS Model for Manning's Roughness: A Case Study". Published in Open Journal of Modern Hydrology, Scientific Research Publication Vol. 3, PP. 97-101. (<http://www.scirp.org/journal/ojmh>).
19. Parhi, P.K, Sankhua, R. N and Roy, G. P. (2012) "Calibration of Channel Roughness of Mahanadi River (India) using HEC-RAS Model". Published in Journal of Water Resources and Protection, Scientific Research Publication Vol. 4, PP 847-850
20. Parhi, P.K, S.K. Mishra, and Singh, R. (2008), "Scheduling of Irrigation for Wheat Using Water Balance Approach", Vol. 28, No. 1, Jan 2008, PP: 1-10, Journal of Indian Water Resources Society, Dept. of WRD&M, I I T Roorkee. ISSN: 0970-6984
21. Parhi, P.K, Jain, S.K, and Singh, R. (2005) "A Chance Constrained Optimization Model for Design and Operation of a Reservoir", Vol. 30, March-June, Page 87-97, Hydrology Journal, Indian Association of Hydrologist, Roorkee. India
22. Parhi, P.K, Mishra, S. K and Singh, R. (2007) "A Modification to Kostiaikov and Modified Kostiaikov Infiltration Models", Vol 21. Page 1973-1989, Water Resources Management, Kluwer Academic Publishers (Springer), The Netherlands, [http:// www.springer.com/](http://www.springer.com/). ISSN 0920-4741 (Print)
- 23.

Books Published:

1. Hydrology and Hydropower Engineering, Mewar University Press, New Delhi, Uttar Pradesh, Rajstan, ISBN : 978-93-85212-31-4, 2017
2. Analysis of Rainfall and Temperature trend of Jharkhand State. LAP Lambard Academic Publisher, ISBN: 978-3-659-79390-5, 2015
3. Calibration and Validation of HEC-HMS parameters of Kharkhai River Basin, LAP Lambard Academic Publisher, ISBN: 978-3-659-85495-8, 2016

Book Chapters Published:

1. Flood Hazard Modelling of Mahanadi River using HEC-RAS, Water and Sustainable Development, New Delhi, Publisher, New Delhi, 2016, ISBN: 978-93-85503-21-1
2. Spatial and Temporal Analysis of Rainfall Trend in Bihar (India), Water and Sustainable Development, New Delhi, Publisher, New Delhi, 2016, ISBN: 978-93-85503-21-1
3. Optimal Cropping Pattern for Sustainable Water Management: A Case Study, Water and

Sustainable Development, New Delhi, Publisher, New Delhi, 2016, ISBN: 978-93-85503-21-1

4. Calibration and validation of HEC-HMS parameters for the Kharkai River Basin(Rastern India), Water and Sustainable Development, New Delhi, Publisher, New Delhi, 2016, ISBN: 978-93-85503-21-1

Program Organised:

Awards and Honours:

Any Other Information: