

Publications

Filed a patent in USA: Tech Brief # 895 A New Index for Determining the Functional Significance of Stenosis in Human Cardio-Vascular Systems (inventors: Mohapatra, P. K., Chaudhry, M. H., Kassem, A. A. and Moloo, J.)

(a) Book and Book Chapters

1. Mohapatra, P. K. (2013). "Detection of leak and blockage in pipes", Chapter 13, *Applied Hydraulic Transients*, Springer, USA.
2. Mohapatra, P. K. (2007). "Mathematical modelling of scour around a bridge pier", *Advances in Hydrosience and Engineering*, Drexel University, USA, ISBN: 0977447405
3. Mohapatra, P. K., Chaudhry, M. H., Kassem, A. A. and Moloo, J. (2006). "Analysis of Flow in a Stenosed Artery by using Transfer Matrix Method", Chapter 9, *Mathematical Biology: Recent trends*, Peeyush Chandra and B. V. Rathis Kumar (Eds.), Anamaya Publishers, New Delhi, India, ISBN 1904798497
4. Mohapatra, P. K. (2005). "Micro-Hydro Power Plant", *Vikash Path*, Bharat Vikash Parishad.
5. Mohapatra, P. K. and Singh, R. D. (2003). "Flood Management in India", *Flood Problem and Management in South Asia*, Mirza et al. (Eds.), Kluwer Academic Publishers, ISBN: 1402010680, pp. 131-143.

(b) Technical Reports

1. Mohapatra, P. K. (2001). *Analysis of Flow in Western Sone Link Canal, Indrapuri, Bihar*, Submitted to National Institute of Hydrology, Roorkee
2. Mohapatra, P. K. (1999). *Flood phenomenon at the junction of a tributary with a river*, Submitted to National Institute of Hydrology, Roorkee
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4. Mohapatra, P. K. (1999) *Modeling of debris flows*, TR(BR) 1/1999-2000, Submitted to National Institute of Hydrology, Roorkee
5. Mohapatra, P. K., and Palaniappan, A. B. (1998). *One-Dimensional modeling of branched free surface flow*, TR/BR-8/97-98, Submitted to National Institute of Hydrology, Roorkee.
6. Mohapatra, P. K., and Palaniappan, A. B. (1998). *Effect of non-hydrostatic pressure distribution on dam-break flood wave movement*, TR/BR 14/97-98, Submitted to National Institute of Hydrology, Roorkee
7. Mohapatra, P. K., and Palaniappan, A. B. (1997). *Hydrological aspects of flood disaster management*, SR1/97-98, Submitted to National Institute of Hydrology, Roorkee.
8. Mohapatra, P. K., B. S. Murty, Gangadharaiah, T., and Subramanya, K. (1995). *Pressure wave propagation in bubbly gas-water flows*, Submitted to Department of Atomic Energy, Govt. of India.

(c) Journals

1. Kaurav, R.; Mohapatra, P. K. (2019) "Studying the Peak Discharge through a Planar Dam Breach", accepted, *J. Hydraul. Engg.*, ASCE.
2. Chandran, K.; Saha, A. K.; and Mohapatra, P. K. (2019) "Simulation of Free Surface Flows with Non-hydrostatic Pressure Distribution", *Sadhana*, Indian Academy of Science, 44(20).
3. Chourasiya, S., Mohapatra, P. K., Tripathi, S. (2017) "Non-intrusive underwater measurement of mobile bottom surface", *Advances in Water Resources*, Elsevier, 104, 76-88.
4. Biswal, S. K., Mohapatra, P.K. and Muralidhar, K.(2016) "Transitional Flow In A Right-Angled Compound Open Canal Junction", *Irrigation and Drainage*, John Willey & Sons, 65 (1), 73-84.
5. Biswal, S. K., Mohapatra, P.K. and Muralidhar, K. (2016) "Hydraulics of combining flow in a right-angled compound open channel junction", *Sadhana*, Springer, Vol. 41, No. 1, pp. 97 – 110.
6. Mohapatra, P.K. and Sharma, K. (2013). "Closure to "Separation Zone in Flow past a Spur Dyke on Rigid Bed Meandering Channel" by Kedar Sharma and Pranab K. Mohapatra", *J. Hydraul. Engg.*, ASCE, Vol. 139, No. 10, pp. 1114.

7. Sharma, K. and Mohapatra, P.K. (2012). "Mean flow and separation zone in flow past a spur dyke in rigid bed meandering channel", *J. Hydraul. Engg.*, ASCE, Vol. 138, No. 10.
8. Chandra, V., Mohapatra, P. K, Nestmann, F. (2012). "Effect of flow depth, ions and salinity on suspended sediment concentration", *J. Hydraul. Engg.*, ASCE, Vol. 138, No. 4, pp. 348 – 352.
9. Janardhanan, S., Datta, B., and Mohapatra, P.K. (2012). "Optimal short-term reservoir operation with integrated long-term goals", *Water Resources Management*, Springer, Vol. 26, No. 10, pp. 2833 – 2850.
10. Das, S., Mishra, D.P. and Mohapatra, P.K. (2011). "Effect of a subsonic air stream on a two-dimensional transverse water jet", *INT. Jl. of Turbo & JET ENG*, De Gruyter, Vol. 28, No. 4, pp. 321 – 328.
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15. Reddy, H. P., Chaudhry, M. H., and Mohapatra, P. K. (2010). "Modelling of periodic flows in pipelines by transfer function method", *Journal of Hydraulic Research*, IAHR, Vol. 48, No. 2, pp. 255-259.
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21. Mohapatra, P. K. and Singh, R. D. (2003). "Flood Management in India", *Natural Hazards*, Kluwer Academic Publishers, Vol. 28, No. 1, pp. 131-143.
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(d) Conference Proceedings

1. Kaurav, R. and Mohapatra, P. K. (2018). "Effect of rheology for flow past a bottom rack", Environmental & Water Resources congress (EWRI, 2018), Minneapolis, US, June 3-7, 2018.
2. Mohapatra, P. K. (2017). "Effect of Rheology on Flood Wave Propagation Due to Ash Dyke Failure", World Environmental and Water Resources Congress 2017, 2017 Sacramento, California, US, May 21–25,
3. Pandey, A. K; Mohapatra, P. K.(2017). "Reduction of local scour around a spur dyke" *22nd International Conference on Hydraulics, Water Resources and Coastal Engineering- HYDRO 2017*, Ahmedabad, IN.
4. Kaurav, R. and Mohapatra, P. K. (2017). "Effect of pilot channel shape on dam breach profile", in the International Conference on Recent Trends in Civil Engineering and Water Resources Engineering (RTCWRE-2017). Holy Mary Institute of Technology & Science, Hyderabad, IN.
5. Kaurav, R. and Mohapatra, P. K. (2017). "3-D simulation of flow past a circular crested weir", in the 22nd International Conference on Hydraulics, Water Resources and Coastal Engineering (HYDRO 2017), L. D. College of Engineering, Ahmedabad, IN, Dec. 21-23, 2017.
6. Kumar, P., and Mohapatra, P. K. (2015). "Numerical investigation of transient analysis to detect unauthorized branching", paper Ref HYD-125, HYDRO 2015 International, IIT Roorkee
7. Chourasiya, S., Mohapatra, P. K., Tripathi, S. (2015). "Experimental Investigation of Overtopping Breaching of Non-Cohesive Earthen Dam", *20th International Conference on Hydraulics, Water Resources, Coastal and Environmental Engineering*, Roorkee, India
8. Chourasiya, S., Mohapatra, P. K., Tripathi, S. (2015). "A Laboratory Study of Earthen Dam breaching due to Overtopping", *Asia Oceania Geosciences Society (AOGS) - 12th Annual Meeting together with 7th Asia Pacific Association of Hydrology and Water Resources (APHW)*, Singapore.
9. Kaurav, R. and Mohapatra, P. K. (2015). "Peak outflow prediction due to dam break", in the 20th International Conference on Hydraulics, Water Resources and River Engineering (HYDRO 2015), Indian Institute of Technology, Roorkee, IN, Dec. 17-19, 2015.
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15. Biswal, S. K., Mohapatra, P.K. and Muralidhar, K. (2011). "Hydrodynamic behavior of combining flows in an open channel", 7th IAHR Symposium on River, Coastal and Estuarine Morphodynamics, Sep., 6-8, Beijing, China.
16. Chandra, V., Gangadharaiah, T., Mohapatra, P. K. (2010). "Interference effect of two closely spaced piers on local scour", *Proceedings of 10th Asian Symposium on Visualization*, SRM University, Chennai, India.
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18. Biswal, S. K., Mohapatra, P.K. and Muralidhar, K. (2010). "Turbulent structure in a compound open channel with vegetated floodplains", Proc., 9th Int. Con. on Hydro-Science and Engineering, August 2-5, Chennai.
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