



## Mr. Ashutosh Rath - M.Tech. Ph.D. (Submitted)

**Name** : Ashutosh Rath  
**Designation** : Assistant Professor  
**Department** : Civil Engineering  
(Joined the institute in 2013)  
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### RESEARCH INTERESTS

- Irrigation and Water Management
- Flow Measurements using ADV Flow Tracker
- Application of CROPWAT
- Modeling of Groundwater

### ACADEMIC QUALIFICATIONS

- Ph.D, VSSUT, BURLA (Submitted)
- M.TECH, VSSUT BURLA (Water Resource Engineering)
- B.TECH, VSSUT, BURLA

### TEACHING/INDUSTRIAL/RESEARCH EXPERIENCE

- Asst. Professor of Civil Engineering, Silicon Institute of Technology, Sambalpur since 2013
- Senior Technical Consultant, Odisha Primary Education Programme Authority (OPEPA), (A project under Govt. of Odisha) - 14 years

## PUBLICATIONS

### JOURNAL

1. Rath, A., and Swain, P. C. (2019). "Determination of flow parameters in Mundoghat irrigation canal of Hirakud canal system using Flow measuring instrument." Measurement, Elsevier, 136, 298-306. [Scopus, Science Citation Index]
2. Rath, A., and Swain, P. C. (2018). " Evaluation of performance of irrigation canals using benchmarking techniques a case study of Hirakud dam canal system Odisha, India." ISH Journal of Hydraulic Engineering, Taylor & Francis, 24(1), 1-8. [Scopus]
3. Rath, A., Samantaray, S., and Swain, P. C. (2018). "Flow Measurement in Huma Tail distributary of Hirakud Command Area, India using Chiu's Equation" Pertanika J. Sci. & Techno., 27 (1), 1-12. [Scopus]
4. Rath, A., Samantaray, S., and Swain, P. C. (2019). "Optimization of the Cropping Pattern using Cuckoo Search Technique." Smart Techniques for a Smarter Planet, Studies in Fuzziness and Soft Computing, Springer Nature Switzerland, 374, 19-35 [Scopus].
5. Rath, A., and Swain, P. C. (2018). "Optimal allocation of agricultural land for crop Planning in Hirakud canal command area using, swarm intelligence technique.", ISH Journal of Hydraulic Engineering, Taylor & Francis, 24(2), 1-13. [Scopus]

6. Rath, A., and Swain, P. C. (2018). "Water allocation from Hirakud Dam, Odisha, India for irrigation and power generation using optimization techniques."ISH Journal of Hydraulic Engineering, Taylor & Francis, 24(3), 1-15.[Scopus]
7. Rath, A., and Swain, P. C. (2018). "Optimal Allocation of Water for Irrigation and Power Generation—A Case Study of Hirakud Reservoir, Odisha, India. "Taiwan Water Conservancy, 66(3), 21-34, [Scopus]
8. Rath, A., Samantaray, S., and Swain, P. C. (2019). "Discharge Measurement in Part of Hirakud Canal System, Odisha, India, Using Chiu's Equation" journal of The Institution of Engineers (India): Series A Springer India,1-8,[Scopus]

#### AWARDS

- **DAMODAR SAHOO MEMORIAL AWARD**

Rath, A. and Swain, P.C. (2017) "OPTIMAL Cropping pattern in Senhapali distributary of Hirakud command using Cuckoo search," Technical Annual 58THSession, The Institution of Engineers (India), pp 52-59

- **ER. AVAYA CHANDRA NAYAK MEMORIAL AWARD**

Rath, A. and Swain, P.C.( 2018) "Derivation of optimal cropping Pattern for the command area of Parmanpur disributary ,Sambalpur ,India using Particle Swarm Intelligence Technique" Technical Annual 59TH Session, The Institution of Engineers (India), pp 82-86

ANY OTHER

#### CONFERENCE PAPERS PRESENTED

1. Rath, A., Samantaray, S. and Swain, P. C. ( 2016), "Study of flow properties in Parmanpur canal Odisha, India using entropy theory 'International Conference on Recent Advances in Mechanics & Materials, pp 113-119
2. Rath,A., Biswal,S., Samantaray,S. and Swain, P.C. (2016) "Derivation of Optimal Cropping pattern in part of Hirakud command area using Cuckoo Search" International Conference on Advanced Material Technologies(ICAMT)' IOP Publication" pp.1-11
3. Rath,A., Biswal,S., Samantaray, S. and Swain, P.C. (2017) "Discharge measurement in Sambalpur Distributary of Hirakud canal system, Odisha, India using Chiu's equation"49th Indian Water Works Association Convention,, pp. 1-9
4. Rath, A., Biswal, S., Samantaray,S. and Swain, P.C. (2017) "Application of Genetic Algorithm to derive an Optimal Cropping Pattern in Part of Hirakud Command" ICCAN, 2017, KITS, SPRINGER, Progress in Computing, Analytics and Networking, Springer, Singapore, pp. 711-721.