

## **Curriculum Vitae**

1. **Name** : Dr. Bibhash Sarma
2. **Present Designation** : Associate Professor, Civil engineering Department, Assam Engineering College, Guwahati
3. **Address** : Civil Engineering Department, Assam Engineering College, Guwahati, Guwahati-781013, Assam, India
4. **Phone** : +919864102060
5. **Email** : bsgy@yahoo.co.in

### **6. Service Experience:**

- a) Faculty in Civil Engineering Department, Assam Engineering College, Guwahati (from 1997 to till date)
- b) Faculty in Civil Engineering Department, Jorhat Engineering College, Jorhat (from January, 1997 to May, 1997)
- c) Faculty in Civil Engineering Department, Regional Engineering College, Silchar (from 1991 to 1996)
- d) Management Trainee in Doom Dooma India Ltd. (Hindusthan Lever), Doom Dooma, Tinsukia Dist. (from 1990 to 1991)

### **7. Academic qualification:**

Bachelor of Engineering (Civil Engineering) from Gauhati University

Master of Engineering (Civil Engineering: Watershed Management & Flood Control) from Gauhati University

Ph.D in Civil Engineering (Hydrology) from IIT Roorkee

### **8. Publications:**

#### **Reviewed Journal Publications**

- 1) Krishna Kamal Das and Bibhash Sarma (2018) "Assessment of Water Demands and Availability of Kulsi River Basin", International Journal for Research in

- Engineering Application & Management (IJREAM) ISSN : 2454-9150 Vol-04, Issue-05, Aug 2018, pp: 75-81
- 2) Krishna Kamal Das and Bibhash Sarma (2018) "Assessment of Crop Water Requirements for Kulsi River Basin", International Journal for Research in Engineering Application & Management (IJREAM) ISSN : 2454-9150 Vol-04, Issue-04, June 2018, pp: 141-147
  - 3) Dipankar Sharma and Bibhash Sarma (2018) "Prioritization of Jiya Dhol Basin Using GIS", International Journal of Science and Research (IJSR), ISSN (Online): 2319-7064, Index Copernicus Value (2016): 79.57 | Impact Factor (2017): 7.296, pp:743-749
  - 4) Dipankar Sharma and Bibhash Sarma (2018) "Morphometric Analysis of Jiya Dhol Basin in GIS Framework" International Research Journal of Engineering and Technology (IRJET) Volume: 05 Issue: 07, July-2018 [www.irjet.net](http://www.irjet.net), e-ISSN: 2395-0056, p-ISSN: 2395-0072, pp:787-796
  - 5) Krishna Kamal Das and Bibhash Sarma (2018) "Irrigation Planning for Kulsi River Basin for Maximizing Net Benefit" International Journal for Research in Engineering Application & Management (IJREAM) ISSN : 2454-9150 Vol-04, Issue-03, June 2018, pp: 594-600
  - 6) Bhaswati Dutta, Bibhash Sarma, 'Correlation Study and Regression Analysis of Ground Water Quality Assessment of Nagaon Town of Assam, India', International Journal of Engineering Research & Technology (IJERT), ISSN: 2278-0181, Vol.7, Issue 06, June-2018, pp319-330.
  - 7) Bhaswati Dutta, Bibhash Sarma, 'Assessment of Water Quality Index of the Kolong River of Nagaon District of Assam, India', Journal of Engineering Research and Application, [www.ijera.com](http://www.ijera.com), ISSN: 2248-9622, Vol 8, Issue 6 (Part-IV), June 2018, pp29-38
  - 8) Sanjay Kumar Sharma, Young-Joo Kwak , Rakesh Kumar and Bibhash Sarma (2018) "Analysis of Hydrological Sensitivity for Flood Risk Assessment", *ISPRS International Journal of Geo-Information* 2018, 7(2), 51; doi:[10.3390/ijgi7020051](https://doi.org/10.3390/ijgi7020051), (Special Issue [Geographic Information Science and Spatial Analysis in Water Resources](#)), EISSN 2220-9964 Published by MDPI AG, Basel, Switzerland
  - 9) Dipsikha Devi, Nilutpal Phukan and Bibhash Sarma, 'A Study of Erosional Depositional Activity and Land Use Mapping of Majuli River Island Using Landsat Data', (© Springer Nature Singapore Pte Ltd. 2018, V. P. Singh et al. (eds.), *Hydrologic Modeling, Water Science and Technology Library* 81, [https://doi.org/10.1007/978-981-10-5801-1\\_14](https://doi.org/10.1007/978-981-10-5801-1_14)
  - 10) Priyanka Kotoky, Bibhash Sarma, 'Mapping of Ground Water Quality of the Guwahati City of Assam, India Using Geographic Information System', Souvenir cum Technical Volume, Theme- Potential Effects of Contaminated Water on Health Mitigation Options, 14<sup>th</sup> Foundation Day, Senior Engineers' Forum, Guwahati (N.E. Region), 20<sup>th</sup> Feb 2018, pp92-100.
  - 11) Priyanka Kotoky, Bibhash Sarma, 'Comparison of Treatment Efficiencies of the Water Treatment Plants of Guwahati City of Assam, India' International Journal

- of Engineering Research and Technology, Volume 6, Issue 5, May 2017, [www.ijert.org](http://www.ijert.org), PP 17-25, ISSN 2378-0181.
- 12) Priyanka Kotoky, Bibhash Sarma, Enny Dowerah Kotoky, 'Fluoride Contamination of Groundwater of the Hatigaon Area of Assam, India and the Variation of Fluoride Content Levels with the Depth of Wells', International Journal of Science & Engineering Development Research (IJSER), Volume 2 Issue 4, April-2017, PP: 509 – 516, [www.ijsdr.org](http://www.ijsdr.org), ISSN: 2455-2631
  - 13) Priyanka Kotoky, Bibhash Sarma, 'Assessment of Water Quality Index of the Brahmaputra River of Guwahati City of Kamrup District of Assam, India' International Journal of Engineering Research and Technology (IJERT), Volume 6, Issue 3, March 2017, [www.ijert.org](http://www.ijert.org), PP 536-540, ISSN 2278-0181
  - 14) Priyanka Kotoky, Bibhash Sarma, 'Assessment and Mapping of Fluoride Contamination of Groundwater of the Hatigaon Area of Assam, India Using Geographic Information System' International Journal of Science and Research (IJSR), Volume 6, Issue 4, April 2017, [www.ijsr.net](http://www.ijsr.net), PP 1692-1698, ISSN 2319-7064.
  - 15) Bharati Medhi Das, M.M Das, Bibhash Sarma, 'Solution of Unsteady Flow Equations in High Pressure Pipe', International Journal of Innovative Research in Science, Engineering and Technology, Volume 6, Issue 3, March- 2017, [www.ijirset.com](http://www.ijirset.com), ISSN 2347-6710 (Print) & ISSN 2319-8753 (Online).
  - 16) Bharati Medhi Das, M.M Das, Bibhash Sarma, 'Error Analysis of Friction Factor Formulae with Respect to Colebrook-White Equation', International Journal of Science and Research (IJSR), Volume 6, Issue 3, March- 2017, [www.ijsr.net](http://www.ijsr.net), ISSN (Online): 2319-7064.
  - 17) Bharati Medhi Das, Bibhash Sarma, 'Solution of Non-Linear Unsteady Flow Equations in Surge Tank', International Journal of Engineering Research and Technology, Volume 4, Issue 9, September 2016, PP 8-17, ISSN 2349-4395 (Print) & ISSN 2349-4409 (Online).
  - 18) Bharati Medhi Das, M.M Das, Bibhash Sarma, 'Evaluation of Numerical Methods of Solution and Resistance Equations Applicable to Unsteady Flow Situation in Surge Tank', International Research Journal of Engineering and Technology (IRJET), Volume 3, Issue 10, Oct- 2016, [www.irjet.net](http://www.irjet.net), ISSN 2393-0072 (Print) & ISSN 2395-0056 (Online).
  - 19) Lakshmi Rani Konwar, Madan Mohan Das, Bibhash Sarma, 'The Study of Resistance in Unsteady Flow in Surge', International Journal of Research and Scientific Innovation (IJSI) | Volume III, Issue VI, June 2016 | ISSN 2321–2705, Pg 1-3
  - 20) Lakshmi rani Konwar, Bibhash Sarma, 'Study of Resistance in Steady Gradually Varied Flow Profiles', International Journal of Research in Science and Technology, (<http://www.ijrst.com>), (IJRST) 2016, Vol. No. 6, Issue No. II, Apr-Jun e-ISSN: 2249-0604; p-ISSN: 2454-180X, IRA Publications, Pg. 143-148
  - 21) L.R. Konwar and Sarma, B. (2015) "Analysis and Verification of Resistance Co-Efficient with Different Flow Parameters Having Different Bed Conditions to Open Channel Flow", International Advanced Research Journal in Science,

- Engineering and Technology (Impact Factor 1.918), Volume 2, Issue 8, August 2015, DOI 10.17148/IARJSET.2015.2822, ISSN (Online)2393-8021, ISSN (Print) 2394-1588
- 22) Deka, A.P., and Sarma, B. (2015) "Micro Watershed Management of West Gotanagar" International Journal of Multidisciplinary Research Centre, Volume 1, Issue 5, Oct 2015, ISSN 2454-3659
  - 23) Sarma, B. (2014) "An Improved Multireservoir Multiyield Preliminary Screening Model". International Journal of Innovative Technology and Adaptive Management, (ISSN 2347-3622) December, 2013
  - 24) Sarma, B.; Das, K. K.; Sharma, S.K. (2014) "Sizing of A Multi-Purpose Reservoir System Using Combined Optimization-Simulation Model" Asian Academic Research Journal of Multidisciplinary, Volume 1, Issue 18 (February 2014) ISSN: 2319 – 2801)

#### **Conference/Seminar/Workshop Publications:**

- 25) Sarma, B., and Srivastava, D.K. (2003). "Dynamic programming models for inter-basin water transfer." In: Singh, V.P. and Yadava, R.N. (Ed), *Water Resources System Operation, Proceedings of the International Conference on Water and Environment (WE-2003)*, Dec. 15-18, Bhopal, India.
- 26) Sarma, B., and Srivastava, D.K. (2005) "Simulation study of a river linking project." *Proc. of the International Conference on Hydrological Perspectives for Sustainable Development (HYPESD-2005)*, Indian Institute of Technology Roorkee, Feb.23-25, 2005, pp 598-608.
- 27) Sharma, Nayan, and Sarma, B. (2003). "Inter-basin water transfer - A critical study on basic approach with special reference to the Brahmaputra basin." *Proc. of the National Seminar on River Link Water Management-Its Necessity and Feasibility in East and Northeast India With or Without Bangladesh*. Centre for Research in Indo-Bangladesh Relations, ICCR, Dec. 6, Kolkata.
- 28) Sarma, B. (2005) "Inter-Basin Water Transfer With Special Reference to Manas-Sankosh-Tista-Ganga link". *National seminar on "Problems and Prospects in Linking the Indian Rivers"*, Indian Science Congress Association, Guwahati Chapter 28<sup>th</sup> March, 2005.
- 29) Sarma, B. (2005) "Research and Development Needs for Water Resources". *Souvenir on 21<sup>st</sup> Water Resources Day, 31<sup>st</sup> May 2006*, The Institution of Engineers (India), Assam State Centre.
- 30) Sarma, B. (2007) "An Improved Multireservoir Multiyield Preliminary Screening Model". *Proc. of the National Workshop on Reservoir Planning and Operation. Assam Engineering College, Dec 19, Guwahati.*
- 31) Sarma, B. (2010) "Master Plan for Basin Development". *Souvenir on 25<sup>th</sup> Water Resources Day, 26<sup>th</sup> May 2010*, The Institution of Engineers (India), Assam State Centre.
- 32) Sarma, B. (2011) "Water Supply and Relevant Issues". *Souvenir on 26<sup>th</sup> Water Resources Day, 30<sup>th</sup> May 2011*, The Institution of Engineers (India), Assam State Centre.

- 33) Sarma, B.; Das, K. K.; Patwari, N. N. (2013) "Sizing of Kulsi Reservoir System Using Non-Linear Optimization and Simulation". Proc. of Assam International Water Conference-2013, 21-22 February, 2013; Guwahati, Pg1-13.
- 34) Sarma, B., and Srivastava, D.K. (2013). "Modeling Approach for Inter-Basin Water Transfer" *Souvenir on World Water Day 2013*, The Institution of Engineers (India), Assam State Centre, 22<sup>nd</sup> March
- 35) Sarma, B.; Das, K. K.; Sharma, S.K. (2014) "Planning of A Multi-Purpose Reservoir System Using System Analysis Techniques" Proc. of National Conference on Sustainable Infrastructure Development (NCSID), 13-14 March 2014, National Institute of Technical Teachers Training and Research, Sector 26, Chandigarh, Chitkara University, Pg 164-170
- 36) Sarma, B. (2014) "Sizing of Kynshi Reservoir System using System Analysis techniques" **Proc. of 'CIVIONICS'** National Conference on "Recent Advancements and Innovations In Civil Engineering" 27th ,28th ,29th June 2014, Organized by Department of Civil Engineering, Technocrats Institute Of Technology (Excellence), Anand Nagar, P.B. No. 24, Post-Piplani, BHEL, Bhopal-21
- 37) Sarma, B. (2014) "Geosynthetics for River Bank Protection: A Case Study" **Proc. of 'CIVIONICS'** National Conference on "Recent Advancements and Innovations In Civil Engineering" 27th ,28th ,29th June 2014, Organized by Department of Civil Engineering, Technocrats Institute Of Technology (Excellence), Anand Nagar, P.B. No. 24, Post-Piplani, BHEL, Bhopal-21
- 38) Barman, S. and Sarma, B. (2015) "Micro Hydro Power Project: A Possible Solution of Power Crisis for Sustainable Development of Assam" Proc. of *Water Resources Day*, 22<sup>nd</sup> March 2015, The Institution of Engineers (India), Assam State Centre.
- 39) Deka, A.P., Sarma, B. and Kashyap, T.L. (2015) "Management of a Micro-Watershed in a Hilly Area in Guwahati" Proc. of *Water Resources Day*, 22<sup>nd</sup> March 2015, The Institution of Engineers (India), Assam State Centre.
- 40) Sarma, B. and Choudhury, J.A. (2015) "Design of an Urban Drainage System", Proc. Of Assam Water Conference-2015, Guwahati, 6-7 February, 2015
- 41) Pathak, A. and Sarma, B. (2015) "An Experimental Study on Behaviour of Single Spur Dyke" Proc. Of Assam Water Conference-2015, Guwahati, 6-7 February, 2015
- 42) Sarma, B. and Devi D. (2015) "A Study on Channel Migration and Flood Mapping on Subansiri Basin in Assam", Disaster Management: Issues and Challenges, Proceedings of National Seminar, PCPS Girls Polytechnic, Bamunimaidam with ASDMA, 3-4 November, 2015 (ISBN No. 8187800097)
- 43) Dipsikha Devi, Bibhash Sarma, 'Simulation Study of Subansiri Lower Reservoir', CESDOC2016, 1<sup>st</sup> International Conference on Civil Engineering for Sustainable Development- Opportunities and Challenges', 19-21 Dec 2016, Assam Engineering College, Guwahati, Assam
- 44) Krishna K. Das, Bibhash Sarma, 'Application of Simulation-Optimization Model in Reservoir Planning', CESDOC2016, 1<sup>st</sup> International Conference on Civil

Engineering for Sustainable Development- Opportunities and Challenges', 19-21 Dec 2016, Assam Engineering College, Guwahati, Assam

**9. Member of Editorial Board/Reviewer's Team/University Boards/Professional Body/Expert Committee**

- (a) Member of Editorial Board/Reviewer's Team IRA Publications for
  - i. International Journal of Advances in Engineering Research (e-ISSN:2231-5152, p-ISSN: 2454-1796)
  - ii. International Journal of Research in Science & Technology (e-ISSN: 2249-0604, p-ISSN:2454-180X)
- (b) Board Member for International Journal of Multidisciplinary Research and Modern Education, R&D Modern Research Publication, Perambalur, Tamilnadu, India (Website: [www.rdmodernresearch.org](http://www.rdmodernresearch.org))
- (c) Member, Board of Studies (BoS), The Assam Royal Global University, Guwahati
- (d) Indian Society for Technical Education
- (e) Institution of Engineers, India
- (f) Acted as Academic Advisor, Kaziranga University
- (g) Acted as member of the Expert Committee on "Fluvial Morphology of River Brahmaputra, sediment Management with possibility of dredging by adopting Modern Technology" formed by Govt. of Assam and submitted report
- (h) Acted as member of the Expert Committee on "Strategic Planning to Mitigate Drainage Problem of Greater Guwahati Airport area" formed by Govt. of Assam and submitted report

**10. Completed consultancy works:**

- a) Evaluation study of Master Plans prepared by Brahmaputra Board during Xth Plan funded by Ministry of Water Resources, Govt. of India
- b) River model study for the scheme "Protection of Borbeel, Muwamari and Goroimari from the erosion of river Brahmaputra" for WRD, Assam
- c) Evaluation study of many flood mitigation and river bank protection schemes in Assam, for Water Resources Department, Govt. of Assam
- d) Soil investigation, planning and design of Dibrugarh town protection embankments for Water Resources Department, Govt. of Assam, funded by Asian Development Bank.
- e) Fixation of drainage alignment and design of drainage in Sewali Path, Hatigaon, Guwahati for Meghmallar Pvt. Ltd.
- f) Surveying of Baskandi Thermal Power Project site, Baskandi, Cachar
- g) Soil testing for different reputed companies working in North-East India

- h) Construction material testing for different reputed companies working in North-East India

**11. Organized:**

- a) National Workshop on Reservoir Planning and Operation, Sponsored by Dept. of Science and Technology, Govt. of India, NEEPCO Ltd. and Assam Engineering College, Dec 19, 2007 Guwahati.
- b) DHI sponsored training programme for middle level engineers of Water Resources Department, Govt. of Assam
- c) CESDOC-2016, 1<sup>st</sup> International Conference on Civil Engineering for Sustainable Development Opportunities and Challenges, December 2016, Assam Engineering College, Guwahati

The above facts are true to the best of my knowledge and belief.

**(Bibhash Sarma)**