

Curriculum Vitae

1. Name (Block Letters) : DR. MRINAL KUMAR DUTTA
2. Father's/Mother's/ Husband's Name : LATE S.N.DUTTA
3. Current Designation : ASSOCIATE PROFESSOR
4. Department : CIVIL ENGINEERING
5. Institute : JORHAT ENGINEERING COLLEGE
6. Address for correspondence (with pin code) : **Department of Civil Engineering
Jorhat Engineering College
Jorhat -785007 (Assam)**
7. Permanent address(with pin code) : Vill &P.O.- NIZ PAKOWA
**Dist: NALBARI
PIN-781353**

Telephone No : 9954420995
E –mail : mrinaldk@rediffmail.com,
mrinaldk68@gmail.com

8. Educational qualification (HSLC onwards)

| Qualification | Board/University | Year of obtaining degree | Specialization |
|--------------------------------|--------------------------|--------------------------|-------------------|
| HSLC | SEBA | 1983 | |
| HS | GAUHATI UNIVERSITY | 1985 | |
| TDC(sc) | GAUHATI UNIVERSITY | 1989 | GEOLOGY |
| M.Tech (APPLIED GEOLOGY) | UNIVERSITY OF ROORKEE | 1993 | REMOTE SENSING |

9. Research Degree(s):

| Degree | Name of the University | Date of award | Title |
|--------|-------------------------|---------------------------|--|
| Ph.D | DIBRUGARH UNIVERSITY | 23 RD Nov'2007 | <i>“Dhansiri River channel, Assam – A Geomorphologic Attribute”</i> |

10. Details of Teaching/Research/Academic experience:

| Designation | Employer | Period of Service | | Scale of Pay |
|------------------------|----------------|-------------------|------------------|-------------------|
| | | From | To | |
| ASSISTANT PROFESSOR | GOVT. OF ASSAM | 01/07/1994 | TO 25/06/2013 | 8000-13500/ |
| ASSOCIATE PROFESSOR | GOVT. OF ASSAM | 25/06/2013 | TO TILL DATE | 1,31,400-2,17,100 |

11. Details of publication

Journals

- a) Prakash.A, Saraf,A.K.,Gupta. R.P, Dutta.M., Sundaram. R.M.(1995) “Surface thermal anomalies associated with underground fires in Jharia Coal Mines,INDIA”, International Journal of Remote Sensing ,Vol 16.No.12, pp.2105-2109,1995.
- b) Dutta, M.K and Kotoky, P. (2006)“Wetlands along the Dhansiri River channel, Assam”, , GIS Development, 14-18,2006.
- c) Dutta, M.K, Barman,S and Aggarwal S.P. (2010) “A study of erosion-deposition processes around Majuli Island, Assam”, Earth Science India, Vol. 3 (IV), October, 2010, pp. 206-216.
- d) Kotoky, P, Dutta, M. K, Goswami, R. and Borah, G. C. (2011)“Geotechnical Properties of the Bank Sediments along the Dhansiri River Channel, Assam”, Journal Geological Society of India, Vol.78,August 2011, pp.175-183.
- e) Kotoky, P, Dutta M. K, and Borah G. C. (2012)“Changes in Landuse and Landcover along the Dhansiri River Channel, Assam – A Remote Sensing and GIS Approach”, , Journal Geological Society of India, Vol.79,January 2012, pp.1-8.
- f) Barman, S , Aggarwal, S.P and Dutta M.K. (2013) Soil Erosion due to Change in Vegetated area in the Majuli Island of Assam” International Journal of Advancement in Remote Sensing, GIS and Geography Vol.1, No.1,2013, pp. 8-19
- g) Kalita M. and Dutta M.K. (2016) Rock-Quality Study at Tunnel Site in the Kameng Hydro-Electric Project, Bichom, Arunachal Pradesh, India” Earth Science India, Vol. 9 (I), January, 2016, pp. 21 – 28
- h) Barik P.A,Mazumdar .M, and Dutta M.K (2017) “A study on Hydroelectric and Irrigation potential of Dikhow river, Assam”, ADBU-Journal of Engineering Technology , Issue 2, July, 2017,
- i) Das. D, Ojha.A, Kramsapi,H, Baruah. P and Dutta.M.K(2019) “Road network Analysis of Guwahati city using GIS” SN Appl. Sci. (2019) 1:1-11 Volume 1 Number 8 Springer Nature Journal .
- j) Englengi M and Dutta M.K(2019) “Study on Surface Soil Erosion of Bhogdoi River Basin Using GIS and Remote Sensing” Springer Nature Singapore Pte Ltd. 2021, S. Patel et al. (eds.), *Proceedings of the Indian Geotechnical Conference 2019*, Lecture Notes in Civil Engineering 134.
- k) Barman S., and Dutta M.K. (2021) “River Bank Stability Assessment Based on Engineering Properties of Soil Around the Majuli Island of Northeast India” SSRG International Journal of Civil Engineering Volume 8 Issue 10, 35-42, Oct 2021

Book/e-book/book Chapter :

- a) Kotoky, P. Dutta M.K and Borah G.C(2011). “Wetland Ecology Along the Dhansiri River Channel, Assam, India”. In: L. Kosygin (ed) Biodiversity, Ecology And Conservation of Rivers and Stream of North East India, Akansha Publishing House, New Delhi,2011, PP185-202
- b) Kotoky, P. and Dutta, M.K.(2015) “Mechanisms and Spatio-temporal Variations of Meandering and Erosion- Deposition Statistics of the Dhansiri River, Assam” In: Mu. Ramkumar, K. Kumaraswamy and R. Mohanraj(eds) Environmental Management of River Basin Ecosystems, Springer Earth System Sciences, Springer International Publishing, Switzerland, 2015, PP253-282
- c) Dutta M., Dutta P, and Dutta, M.K (2020) “Parameter Sensitivity by Watershed Model of Bhogdoi, a Tributary of the Brahmaputra River” in R. K. Bhattacharjya et al. (eds.), *Sustainable Water Resources Management*, Advances in Sustainability Science and Technology

Conferences

- a) “Decorrelation Stretching and HIS transformation of Remote Sensing data for improvements in geological mapping”, M.K. Dutta, R. Sundaram. A.K. Saraf and R.P. Gupta, Abstract Volume, National Symposium on Remote Sensing applications for resource management with special emphasis on North Eastern region, Indian Society of Remote Sensing, 37, 1993
- b) “Dhansiri River channel, Assam- its geomorphic attributes” by M.K. Dutta, on 2nd January 2004 at the Geoscience Division, Regional Research Laboratory, Jorhat, Assam.
- c) “Characterisation of wetlands along the Dhansiri River Channel, Assam”. by M.K. Dutta, on 12th February 2004 at the Geoscience Division, Regional Research Laboratory, Jorhat, Assam.
- d) “Nature of meandering in the Dhansiri River channel, Assam”. by M.K. Dutta, at National Seminar, Geological Society of India on November 9th, 2005 at the Department of Geology, Nagaland University, Kohima held on 9th to 11th November 2005.
- e) “Erosion/deposition processes along the Dhansiri River channel, Assam”. by M. K.Dutta, on January 30th, 2007 at the Department of Applied Geology, Dibrugarh University, Assam.
- f) “Land Use/Land Cover Change Detection Study of the Majuli Island of Assam - The Largest River Island of the World” at 4th ASCE-EWRI International Perspective on Water Resources and the Environment on January 4-6, 2011 (IPWE 2011), National University of Singapore, Singapore.
- g) “Bank Stability Analysis of Dhansiri River in Numaligarh area, Assam” at, National Seminar on Multidisciplinary Approach in Sedimentary Basin Studies, held on Dibrugarh University, March 15-16, 2012.
- h) “Classification of Rock Mass in Kameng Hydro-Electric Project at Bichom, Arunachal Pradesh” at *AICTE - NEQIP Sponsored Two Day National Seminar cum*

Workshop Advances in Civil and Infrastructure Engineering (ACIE-2015) 8-9th May 2015. , Tezpur University, Tezpur, India

- i) M.K. Dutta and M. Muzumder (2016) A Study On Hydroelectric And Irrigation Potential Of Bhogdoi River, Assam, CESDOC, 19-21 December' 2016 Assam Engineering College.
- j) Dutta A AND Dutta, M.K "A Study on Excavation Method and Support System Of tunnel Using Phase² Program" *International Conference on Infrastructure Development* 21-22 December 2018 Jorhat Engineering College, Jorhat, Assam, India

12. Area of Specialization: Engineering Geology, Remote Sensing &GIS

13. Areas of Research Interest : Geomorphology, Landslide hazard Analysis, Watershed management.

14. M.Tech Dissertation Supervised

| Sl No. | Name of Student | Dissertation | Year | Status |
|--------|--------------------|---|----------------|-----------|
| 1 | Mintu Kumar Kalita | A Study on Various Geological Parameters considered in the construction of the Tunnel in KaHEP at Bichom, Arunachal Pradesh | September'2015 | Completed |
| 1. | Mriganka Mazumder | A study on Hydroelectric and Irrigation Potential of Bhogdoi River, Assam | August'2016 | Completed |
| 2. | Punit Al Barik | A study on Hydroelectric and Irrigation Potential of Dikhow River. | June'2017 | Completed |
| 3. | Arindom Dutta | Design of Support System for the HRT Tunnel at Bichom, Arunachal Pradesh Using Phase ² Program | Feb'2019 | Completed |
| 4. | Marina Englengpi | Study on Surface Soil Erosion of Bhogdoi River Basin Using GIS and Remote Sensing | July'2019 | Completed |
| 5. | Monisha Dutta | Hydrological Assessment of the Bhogdoi River Basin Using SWAT | August'2020 | Completed |

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|----|---------------------|---|----------|-----------|
| 6. | Rujma Begum | Slope Stability Analysis Using Limit Equilibrium Method with the Variation of Shear Parameters of Soil for Different Natural Slope angle. | Dec'2021 | Completed |
| 7. | Mrigakshi Bharadwaj | A study on Geometry, Relief and Morphometric Characteristics of the Beki River Basin, Assam | Dec'2021 | Completed |
| 8. | Apratim Bordoloi | Landslide Vulnerability Study along NB-513 from Pasighat to Mariyang, Arunachal Pradesh | | Ongoing |
| 9. | Hrishikesh Barman | Flood Inundation and Hazard mapping of the river Pagladiya using Hec-Ras &GIS | | Ongoing |
| 10 | Bharnab Bora | Flood Inundation and Hazard mapping of Beki River using Hec-Ras &Google Earth Engine. | | Ongoing |

15. PhD Thesis Supervised

| Sl No. | Name of Student | Research Topic | Year of registration | Status |
|--------|------------------|--|----------------------|---------|
| 1 | Mrinal Adhyapak | Hill slope stability analysis along Pasighat-Yinkiong Highway (NH-513) upper Siang District, Arunachal Pradesh | 2019 | Ongoing |
| 2. | Mrganka Muzumder | A GIS based Approach in the study of Morphometric Analysis and the Geomorphic attributes of Beki River, Assam. | 2019 | ongoing |

16. Professional membership

| Sl No. | Details | Organisation | Year |
|--------|-------------|----------------------------------|--------------|
| 01 | Life member | Indian Society of Remote Sensing | L-1756, 1999 |

17. Details of participation in Faculty Development program/STTPs/Training activities

| Sl No. | Details of FDP/STTPs/Training activities attended | Organisation | No of days | Year |
|--------|--|--|------------|--|
| 1 | Short term course on Rock Engineering for Infrastructural Development | IIT Guwahati | 4 | 04/04/2016 to 08/04/2016 |
| 2 | Management Capacity Enhancement Programme | IIM Udaipur | 5 | 12/02/2018 to 17/02/2018 |
| 3 | Short Term training Programme on “Recent Advances in Civil Engineering” | Jorhat Engineering College | 5 | 27/08/2019 to 31/08/2019 |
| 4 | First International Conference on Infrastructure Development (ICID 2018) | Jorhat Engineering College | 2 | 21/12/2019 to 22/12/2019 |
| 5 | Online webinar series on “Application of Remote Sensing in Hydrology and Environmental Protection for Sustainable Society” | Shri Shivaji Science College, Amravati | 4 | 5 th to 8 th June’2020 |
| 6 | 1st Indo-Japan Webinar Series on “Geotechnics for Disaster Mitigation” | National Institute of Technology Karnataka (NITK) Surathkal, India Indian Institute of Technology (IIT) Tirupati, India and Kyushu University Japan | 6 | 8 - 13 June, 2020. |
| 7 | FDP on “Geospatial Applications in Water Resources” | St. Joshep’s Institute of Technology, Chennai | 3 | 15.6.2020 to 17.6.2020 |
| 8 | Esri User Conference India Live 2020 | Esri India | 3 | July 14-16, 2020 |
| 9 | FDP on “ Recent Development in Civil Engineering” | Jorhat Engineering College | 5 | 13 th -17 th July’2020 |

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|----|---|--|----|--------------------------|
| 10 | 21 days Online GIS Training Program using QGIS | School of Earth Sciences, Central University of Karnataka | 21 | 13/7/2020 to 2/8/2020 |
| 11 | Online Conference on “Approaching the Contagious Diseases From A Geospatial Perspective” | ALAHABAD UNIVERSITY | 2 | 26/8/2020 to 27/8/2020 |
| 12 | FDP on “Advanced Surveying and Geo-Informatics” | M S Ramaiah Institute of Technology , Bangalore, 560054 | 6 | 24/8/2020 to 29/8/2020 |
| 13 | FDP On “ Artificial Intelligence Using PYTHON” | Kurinci College of Engineering and Technology(Anna University), Chennai. | 6 | 14/11/2020 to 19/11/2020 |
| 14 | Online Training Programme on “ Climate Change And Future Trends in Disaster Management” | National Institute of Disaster Management and University of Kashmir | 3 | 27/01/2021 to 29/1/2021 |
| 15 | AICTE Training And Learning (ATAL) Academy Online Elementary FDP on " Hyper spectral remote sensing and its applications" | CMR Institute of Technology | 5 | 06/09/2021 to 10/09/2021 |
| 16 | International e-Workshop - Talk 01: "Morphometric Analysis for Geo-Hydrological and Active Tectonics Studies by using ArcGIS & Excel" | GeoVigyan | 2 | 19th & 20th June 2021 |
| 17 | FDP on “ Sustainable Development and Practices in Geotechnical & Geoenvironmental Engineering” | Civil Engineering Department, Rajagiri School of Engineering & Technology (Autonomous) | 12 | 12/10/2021 to 23/10/2021 |

18. List of short term courses organised/Conferences arranged/Course modules developed

| Sl No. | Details of STTP/conferences organised | Venue | Date |
|--------|---------------------------------------|-------|------|
| | | | |

19. Chair in Conference/ Invited Lecture/ Key note speaker:

| Sl. No | Details | Organization | Year | Remarks |
|--------|---|---|---------------------------------|---|
| 01 | Drainage Network of Jorhat City | 6 th annual event of Dr. Kamal Chandra Borthakur Memorial Educational trust organized by Assam Academic Centre, Jorhat | 15 th September'2019 | |
| 02 | Empowering Diversity in Science | Pandit Deendayal Upadhaya Adarsha Mahavidyalaya (PDUAM), Goalpara | 16 th February'2022 | IUPAC Online event on the occasion for GLOBAL WOMEN'S BREAKFAST |
| 03 | Role of Technology in Wetlands Conservation | Jorhat Engineering College | 2 nd February'2022 | On the occasion of World Wetlands Day. |
| 04 | NDLI awareness Programme on National Digital Library of India and NDLI Club | Jorhat Engineering College | 20 th May'2022 | |

20. Details of R&D Projects

| Sl No. | Details | Organisation | Year | Whether PI/Co-PI | Amount |
|--------|---|--------------|---------|------------------|------------|
| | Modernisation of Remote Sensing Lab (F. | AICTE | 2001-02 | PI | 6, 50,000/ |

| | | | | | |
|--|--|-------|---------|----|-------------|
| | No/8020/RID/MODROB-301/2001-02 dtd. 23/3/2002 | | | | |
| | Modernisation of GIS and Image Processing Lab Lab (F. No/8023/RID/MOD-5/2004-05 dtd. 24/3/2005 | AICTE | 2004-05 | PI | 5,00,000/ |
| | <i>Erosion Suceptivity analysis around Majuli, the largest river island of the world</i> (Sanction Letter/ Order No and date of sanctioning the project: No: SR/S4/ES-305/2007 dtd: 19.08.2008) | DST | 2008-09 | PI | . 5,52,000/ |
| | Modernisation of GIS Laboratory (F. No/8024/RIFD/MOD(NER)-33/2010-11 dtd. 03/03/2011 | AICTE | 2010-11 | PI | 15,00,000/ |
| | Modernisation of Surveying Laboratory (F. No/8024/RIFD/MOD(NER)-43/policy-II/2011-12 dtd. 29/3/2012 | AICTE | 2011-12 | PI | 13,50,000/ |
| | | | | | |

21. Details of Major Consultancy Projects involved

| Sl No. | Details | Organisation | Year | Amount |
|--------|---------|--------------|------|--------|
| | NIL | | | |

22. Other information:

| Sl No. | Details | Organisation | Year |
|--------|---------|--------------|------|
| | | | |