Criterion 5	Faculty Information and Contributions	200

FACULTY INFORMATION AND CONTRIBUTIONS (200)

2017-18

Sl. No.	Name of the Faculty Member	Qualification			Association with the Institution	Designation	Date of Joining the Institution	Department	Specialization	Academic Research			Sponsored Research (Funded Research)	Consultancy and Product Development
		Degree (highest degree)	University	Year of Graduation						Research Paper Publications	Ph.D. Guidance	Faculty Receiving Ph.D. during the Assessment Years		
1	Dr. Palash Jyoti Hazarika	Ph.D.	University of Roorkee	2000	1988	Professor	15/11/1988	Civil Engg.	Structural Engineering	12	1 completed 4 ongoing	-	3 Sponsored projects worth 44.5 Lakhs	2 consultancy projects worth Rs. 10 Lakhs
2	Dr. Binu Sharma	Ph.D.	Gauhati University	2000	1987	Professor	07/03/1987	Civil Engg.	Geotechnical Engineering	42	4 ongoing	-	Nil	4consultancy projects

3	Dr. Jayanta Pathak	Ph.D.	IIT Roorkee	2002	1992	Professor	06/11/1992	Civil Engg.	Structural Engineering	12	2 completed 5 ongoing	-	6 sponsored projects worth Rs. 250.5 Lakhs	1 consultancy projects worth more than Rs. 25 Lakhs
4	Mr. Sunit Kumar Bhagabati	M.U.R.P.	University of Roorkee	1993	1981	Associate Professor	11/12/1981	Civil Engg.	Planning	Nil	-	-	Nil	Nil
5	Dr. Mrinal Kumar Borah	Ph.D.	Gauhati University	2011	1992	Professor	15/10/1992	Civil Engg.	Water Resources Engineering	9	2 ongoing	Yes	Nil	Nil
6	Dr. Diganta Goswami	Ph.D.	IIT Roorkee	2004	1992	Associate Professor	23/10/1992	Civil Engg.	Geotechnical Engineering	28	3 completed 9 ongoing	-	1 sponsored research project worth Rs. 24,93,000/-	5 consultancy projects worth more than Rs. 19,16,200/-
7	Dr. Bipul Talukdar	Ph.D.	University of Roorkee	2000	2000	Associate Professor	28/01/2000	Civil Engg.	Water Resources Engineering	28	3 completed 4 ongoing	-	6 sponsored projects worth Rs. 77.68 Lakhs	5 consultancy projects worth Rs. 21.47 Lakhs
8	Dr. Bibhash Sarma	Ph.D.	IIT Roorkee	2004	1997	Associate Professor	06/05/1997	Civil Engg.	Water Resources Engineering	34	2 completed 4 ongoing	-	1 sponsored project worth Rs. 9,86,230/-	7 consultancy projects worth Rs.69 Lakhs
9	Dr. Utpal Kumar Misra	Ph.D.	IIT Roorkee	2006	1994	Associate Professor	04/10/1994	Civil Engg.	Water Resources Engineering	5	Nil	-	1 sponsored project worth Rs. 18 Lakhs	Nil
10	Mr. Bhaskar Jyoti Das	M.E.	Gauhati University	1995	1997	Associate Professor	18/08/1997	Civil Engg.	Geotechnical Engineering	9	Nil	-	1 sponsored project worth Rs. 14,96,000/-	20 consultancy projects
11	Dr. Utpal Kumar Nath	Ph.D.	Gauhati University	2012	2008	Associate Professor	12/05/2008	Civil Engg.	Structural Engineering	32	6 ongoing	Yes	2 sponsored projects worth Rs. 10 Lakhs	2 consultancy projects worth Rs. 10 Lakhs

12	Dr. Malaya Chetia	Ph.D.	IIT Guwahati	2012	1995	Asstt. Professor	31/07/1995	Civil Engg.	Geotechnical Engineering	81	1 ongoing	Yes	Nil	Nil
13	Dr. Triptimoni Borah	Ph.D.	IIT Guwahati	2015	2014	Associate Professor	07/11/2014	Civil Engg.	Water Resources and Environmental Engineering	29	Nil	Yes	Nil	Nil
14	Dr. Pankaj Goswami	Ph.D.	Gauhati University	2013	1996	Asstt. Professor	03/08/1996	Civil Engg.	Water Resources Engineering	5	Nil	Yes	Nil	Consultancy projects worth more than Rs. 20 Lakhs
15	Dr. Bharati Medhi Das	Ph.D.	Gauhati University	2018	1999	Asstt. Professor	25/01/1999	Civil Engg.	Water Resources Engineering	4	-	Yes	Nil	Nil
16	Mrs. Puspanjali Sonowal	M.Tech.	IIT Guwahati	2012	2007	Asstt. Professor	06/01/2007	Civil Engg.	Environmental Engineering	4	-	-	Nil	Nil
17	Mrs. Rupjyoti Bordoloi	M.Tech.	IIT Guwahati	2013	2007	Asstt. Professor	08/01/2007	Civil Engg.	Transportation Systems Engineering	1	-	-	Nil	Nil
18	Mr. Abinash Mahanta	M.E.	Gauhati University	2009	2011	Asstt. Professor	09/03/2011	Civil Engg.	Geotechnical Engineering	-	-	-	Nil	Nil
19	Dr. Sasanka Borah	Ph.D.	Gauhati University	2018	2011	Asstt. Professor	26/09/2011	Civil Engg.	Geotechnical Earthquake Engineering	11	-	Yes		
20	Dr. Indira Baruah Gogoi	Ph.D.	Gauhati University	2017	1993	Retired (Guest) faculty	01/03/2016	Civil Engg.	Engg. Geoscience	5	-	Yes	Nil	Nil
21	Mr. Prasenjit Saha	B.E.	Gauhati University	2013	2013	Guest faculty	01/08/2013	Civil Engg.	Electronics and Telecommunication Engineering	2	-	-	Nil	Nil
22	Ms. Mitali Mandal	M.Tech.	NIT Silchar	2015	2015	Guest faculty	01/08/2015	Civil Engg.	Structural Engineering	1	-	-	Nil	Nil

23	Mrs. Rhitwika Barman	M.E.	Gauhati University	2016	2016	Guest faculty	08/01/2016	Civil Engg.	Watershed Management and Flood Control	1	-	-	Nil	Nil
24	Mrs. Anindita Bhattacharjya	M.Sc (Geological sciences)	Gauhati University	2013	2017	Guest faculty	01/03/2017	Civil Engg.	Structural Geology	2	-	-	Nil	Nil
25	Mr. Bibhuti B. Bhardwaj	M.Tech	IIT Guwahati	2016	2018	Asstt. Professor (under TEQIP-III, NPIU)	02/01/2018	Civil Engg.	Transportation Systems Engineering	1	-	-	Nil	Nil
26	Ms. Jayshree Hazarika	M.Tech	IIT Guwahati	2013	2018	Asstt. Professor (under TEQIP-III, NPIU)	03/01/2018	Civil Engg.	Water Resources Engineering and Management	5	-	-	Nil	Nil
27	Ms. Rupali Sarmah	M.Tech	IIT Delhi	2015	2018	Asstt. Professor (under TEQIP-III, NPIU)	03/01/2018	Civil Engg.	Rock Engineering and Underground Structures	2	-	-	Nil	Nil
28	Mr. Diptojit Datta	M.Tech	IIT Guwahati	2017	2018	Asstt. Professor (under TEQIP-III, NPIU)	03/01/2018	Civil Engg.	Structural Engineering	3	-	-	Nil	Nil

N.B.: Similar tables are added for the academic year 2016-17 and 2015-16 in Annexure-II

Student-Faculty Ratio (SFR) (20)

No. of UG Programs in the Department (n): **1**

No. of PG Programs in the Department (m): **2**

No. of Students in UG 2nd Year= u1

No. of Students in UG 3rd Year =u2

No. of Students in UG 4th Year= u3

No. of Students in PG 1st Year= p1

No. of Students in PG 2nd Year= p2

No. of Students = Sanctioned Intake + Actual admitted lateral entry students

(The above data to be provided considering all the UG and PG programs of the department)

S=Number of Students in the Department

F = Total Number of Faculty Members in the Department (excluding first year faculty)

Student Teacher Ratio (STR) = S / F

Year	**CAY (2017-2018)**	**CAYm1 (2016-2017)**	**CAYm2 (2015-2016)**
UG1	90+12=**102**	90+9=**99**	90+8=**98**
UG2	90+9=**99**	90+8=**98**	90+9=**99**
UG3	90+8=**98**	90+9=**99**	90+9=**99**
p1.1 (Geotech. Engg)	18	18	18
p1.2 (Water Res. Engg.)	18	18	18
PG1	18+18=**36**	18+18=**36**	18+18=**36**
P2.1 (Geotech. Engg)	18	18	18
P2.2 (Water Res. Engg.)	18	18	18
PG3	18+18=**36**	18+18=**36**	18+18=**36**
Total No. of Students in the Department **(S)**	**371**	**368**	**368**
No. of Faculty in the Department **(F)**	**23**	**19**	**19**
Student Faculty Ratio (SFR)	**SFR1=**371/23 **= 16.13**	**SFR1=**368/19 **= 19.37**	**SFR1=**368/19 **= 19.37**
Average SFR	**SFR=18.29**		

Table B.5.1

Faculty Cadre Proportion (25)

The reference Faculty cadre proportion is 1(F1):2(F2):6(F3)

F1: Number of Professors required = 1/9 Number of Faculty required to comply with 15:1

Student-Faculty ratio based on no. of students (N) as per 5.1

F2: Number of Associate Professors required = 2/9 x Number of Faculty required to comply with

15:1 Student-Faculty ratio based on no. of students (N) as per 5.1

F3: Number of Assistant Professors required = 6/9 x Number of Faculty required to comply with

15:1 Student-Faculty ratio based on no. of students (N) as per 5.1

Year	Professors		Associate Professors		Assistant Professors	
	Required F1	Available	Required F2	Available	Required F3	Available
CAY (2017-2018)	3	4	6	8	16	11
CAY*m*1(2016-2017)	3	3	6	7	16	9
CAY*m*2 (2015-2016)	3	3	6	7	16	9
Average Numbers	RF1=3	AF1=3.33	RF2=6	AF2=7.33	RF3=16	AF3=9.67

Table B.5.2

$$\text{Cadre Ration Marks} = \left\{\left(\frac{AF1}{RF1}\right) + 0.6 \times \left(\frac{AF2}{RF2}\right) + 0.4 \times \left(\frac{AF3}{RF3}\right)\right\} \times 12.5$$

$$\text{Cadre Ration Marks} = \left\{\left(\frac{3.33}{3}\right) + 0.6 \times \left(\frac{7.33}{6}\right) + 0.4 \times \left(\frac{9.67}{16}\right)\right\} \times 12.5 = 26.06 = 25$$

Faculty Qualification (25)

FQ =2.5 x [(10X +4Y)/F)] where x is no. of regular faculty with Ph.D., Y is no. of regular faculty with M.Tech. F is no. of regular faculty required to comply 1:15 Faculty Student ratio (no. of faculty and no. of students required are to be calculated as per 5.1)

Years	X	Y	F	FQ=2.5 x [(10X +4Y)/F)]
CAY **(2017-2018)**	14	5	25	16.0
CAY*m*1 **(2016-2017)**	12	7	25	14.8
CAY*m*2 **(2015-2016)**	12	7	25	14.8
Average Assessment				**15.2**

Faculty Retention (25)

No. of regular faculty members in

CAY*m*3 (2014-15) = 20

CAY*m*2 (2015-16) = 19 (95% retained, one faculty has retired and joined as guest faculty)

CAY*m*1 (2016-17) =19 (95%)

CAY (2017-18) =23 (4 nos. TEQIP faculties have joined)

Item (% of faculty retained during the period of three academic keeping CAYm3 as base year)	**Marks (Allotted)**	**Marks (Allotted)**
>=90% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	25	**25**
>=75% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	20	
>=60% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	15	
>=50% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	10	
<50% of required Faculty members retained during the period of three academic years keeping CAY*m*3 as base year	0	

Table B.5.4

Innovations by the Faculty in Teaching and Learning (20)

All the classrooms of the department of civil engineering are equipped with projectors and faculties make use of the same whenever they feel necessary.

A change in normal lab classes has been introduced in the department of Civil Engineering by introducing the concept of rubric while writing/preparing the lab reports. The students are provided a rubric before submitting the lab reports, and they have to follow the rubric at every step. The rubric used for Transportation Engineering-II laboratory is shown-

Sl No.	Part of the report	Assigned Marks
1	**Experiment No.**	0.25
2	**Name of the Experiment**	0.25
3	**Aim of the experiment**	0.5
4	**Relevance of the Experiment** You are expected to write this in bullets discussing all the following points- why the test is performed- what property is evaluated by the test-why this property should be evaluated-how these test results help in good road construction-what if this property is not evaluated before road construction	5
5	**Test Description** If you write directly as given in the manual you will get 1.5 out of 3 marks If you write in your own language- 3 out of 3 marks If copied from one another i.e. same writing for two or more students- 1.5 out of 3 marks for all those students	3
6	**Apparatus Used** Write as it is in the manual without diagram- 1 out of 3 marks Write as it is in the manual with neat schematic diagram- 1.5 out of 3 marks Write as it is in the manual with neat schematic diagram + Write about the shortcomings in the lab - 3 out of 3 marks (e.g. in ductility test one of the shortcomings in the lab was that the temperature of the bath could not be maintained at given temperature because of lack of thermostat)	3
7	**Relevant Codes** Just mentioning the codes as written in the manual - 1 out of 3 marks Attaching print out of any one of the relevant codes with the report- 3 out of 3 marks	3
8	**Procedure** Write as it is in the manual - 1 out of 3 marks Write as it is in the manual, but in passive voice – 1.5 out of 3 marks Write as it is in the manual, but in passive voice + Write about the shortcomings in conducting the experiment- 3 out of 3 marks	3

Sl No.	Part of the report	Assigned Marks
	(e.g. in ductility test we did not allow the specimen to cool down in air temperature for the given time as mentioned in the code)	
9	**Observation Table and Result (2+2+1)** Construction of the table in proper format- 2 marks Matching of the results (2 marks)- • Matching of the results with the group members (2 out of 2 marks) • Not matching of the results with the group members (0 out of 2 marks) Final result of the test (the average of the values obtained) – 1 mark	5
10	**Discussion** Discuss on the result obtained from the test e.g. what can you comment on the type of material from the result-where can you use the material with that kind of result-how the shortcomings in the lab apparatus or procedure followed can have impact on the result- your final conclusion on the test Copying of discussion will directly bring 0 marks to both the students	5
11	**Precautions** As written in the manual- 1.5 out of 2 marks Anything extra with that- 2 out of 2 marks	2

The students after submitting their reports can view their marks online at any time by clicking a link, where the marks are updated after each and every copy gets evaluated.

Also, the system of open book quiz has also been introduced. The students are allowed to bring books, notebooks, laptops while solving the papers. This opens up their minds as well and their potential gets measured too.

The same can be viewed and is available for peer review and critique here-

http://www.ide.iitkgp.ernet.in/Pedagogy/fullcourse.jsp?COURSE_ID=3286

Faculty as participants in Faculty development/training activities/STTPs (15)

·A Faculty scores maximum five points for participation

·Participation in 2 to 5 days Faculty development program: 3 Points

· Participation>5 days Faculty development program: 5 points

Name of the Faculty	Max. 5 per Faculty			
	CAY (2017-2018)	CAYm1 (2016-2017)	CAY*m2* (2015-2016)	CAYm3 (2014-2015)
Mr. Bhaskar Jyoti Das	-	-	3	-

Name of the Faculty	Max. 5 per Faculty			
	CAY (2017-2018)	**CAYm1 (2016-2017)**	**CAY*m2* (2015-2016)**	**CAYm3 (2014-2015)**
Dr. Sasanka Borah	3	5	3	5
Dr. Bharati Medhi Das	3	-	5	-
Dr. Jayanta Pathak	5	5	-	3
Dr. Bipul Talukdar	5	-	-	-
Dr. Utpal Kumar Nath	5	3	3	5
Dr. Triptimoni Borah	-	3	-	3
Mrs. Puspanjali Sonowal	5	3	5	-
Mrs. Rupjyoti Bordoloi	5	-	3	-
Mr. Bibhuti B. Bhardwaj	3	-	-	-
Ms. Jayshree Hazarika	3	-	-	-
Ms. Rupali Sarmah	3	-	-	-
Mr. Diptojit Datta	3	-	-	-
Sum	43	19	22	16
***RF* = Number of Faculty required to comply with 15:1**	25	25	25	25
Assessment = 3 × (Sum/0.5RF)	10.32	4.56	5.28	3.84
Average assessment over three years (Marks limited to 15) = 4.56				

Table B.5.6

Research and Development (30)

Academic Research (10)

Research Paper Publications during the assessment period:

(Journal publications/conference papers/book chapters)

Dr. Palash Jyoti Hazarika

1. (2015) "Finite Element Analysis of Pile Cap Lateral Resistance", Paper No. 81, 50th Indian Geotechnical Conference, December 2015, Pune, Maharashtra, India.
2. (2013) "Lateral resistance of pile cap – an experimental investigation", International journal of Geotechnical Engineering, Vol. 7, No. 3, 266-272.
3. (2013) "Parametric study of pile cap lateral resistance : finite element analysis", International journal of Geotechnical Engineering, Vol. 7, No. 3, 273-281.
4. (2011) "Study of Lateral Resistance of Pile Cap using Finite Element Analysis", International journal of emerging trends in engineering and development (ijeted), Vol. 1, 15-31.
5. (2011) "Prediction of Compressive Strength of Concrete using Neural Network", International journal of emerging trends in engineering and development (ijeted), Vol. 1, 32-43.
6. (2011) "Study of Pile Cap Lateral Resistance using Artificial Neural Networks", International Journal of Computer Applications (0975 – 8887), Volume 21– No.1, ISBN: 978-93-80749-22-7, pp. 20-25.
7. (2011) "Prediction of pile cap lateral resistance using neural networks", Indian Geotechnical Conference, Kochi, Kerala, pp. 815-818.

Dr. Binu Sharma

1. Sharma, B; Gogoi, B; Sridharan, A. (2018) Static Compaction Characteristics of Coarse and Fine Grained Soils. Accepted for publication in Sustainable Civil Infrastructures of GeoChina 2018, July 23-25, 2018, HangZhou, China.
2. Sharma,B; Siddique,A; Medhi, B (2018). One Dimensional Ground Response Analysis and Identification of Liquefiable Strata of Guwahati City. Accepted for publication in Sustainable Civil Infrastructures of GeoChina 2018, July 23-25, 2018, HangZhou, China.
3. Sharma,B and Begum, N (2017).Probabilistic Assessment of Liquefaction Potential of Guwahati City. © Springer International Publishing AG 2018. T. Abdoun and S. Elfass (eds.), Soil Dynamics and Soil-Structure Interaction for Resilient Infrastructure, Sustainable Civil Infrastructures, Cham doi.org/10.1007/978-3-319-63543-9_4.pp35-45

4. Sharma,B; Siddique,A; Medhi, B. (2017) Assessment of liquefaction potential of Guwahati city by probabilistic approaches. Journal of Innovative Infrastructure Solutions, Springer (2018) 3:11, https://doi.org/10.1007/s41062-017-0117-0.
5. Sharma,B and Deka,A. (2017). "A study on Static compaction of Soils" Springer conference volume. IGC 2016, 15-17 December, IIT Madras, Chennai,India.
6. Sharma,B and Sarkar,S.(2017). "A Study on Efficiency of Micropile Groups" Springer conference volume. IGC 2016, 15-17 December, IIT Madras, Chennai,India.
7. Sharma,B and Deka, P.(2017) "A study on Compressibility,Swelling and Permeability Behaviour of Bentonite-Sand Mixtures". Springer conference volume, IGC 2016, 15-17 December, IIT Madras, Chennai,India.
8. Sharma,B; Sarma,S; Sridharan,A. (2017). A Study on Compressibility, Swelling and Permeability characteristics of a Bentonite-Sand Mixture. Indian Geotechnical Conference 2017 GeoNEst 14-16 December 2017, IIT Guwahati, India.
9. Sharma,B; Siddique,A; Medhi, B. (2017). Assessment of Liquefaction Potential of Guwahati city using Ground Response Analysis. Proceedings of the National conference on recent advancement in Geotechnical Investigations and Ground Improvement Techniques, 14-15 May, 2017, NIT Silchar.
10. Sharma,B; Sridharan,A and Talukdar,P.(2016) " Static Method to determine Compaction Characteristics of Soils". Accepted for publication in the Geotechnical Engineering Journal, American Society of Testing Materials (ASTM).
11. Sharma, B. and Rahman, S.K. (2016) Use of GIS Based Maps for Preliminary Assessment of Subsoil of Guwahati City. Journal of Geoscience and Environment Protection, 4, 106-116. http://dx.doi.org/10.4236/gep.2016.45011
12. Sharma, B (2016). "Application of micropiles for underpinning and seismic retrofitting of structures" Proceedings of the first international conference on CESDOC, 2016,19.21 December, Guwahati, Assam.
13. Sharma, B; Begum,N. and Aggarwal, K. (2016). "Comparison of Liquefaction Potential of Guwahati city by two Deterministic methods" Proceedings of the first international conference on CESDOC, 2016, 19-21 December, Guwahati, Assam.
14. Sharma,B and Deka,A.(2016). " A study on Static compaction of Soils" Proceedings of the Indian Geotechnical Conference,IGC 2016, 15-17 December, IIT Madras,

Chennai,India.

15. Sharma,B and Sarkar,S.(2016). " A Study on Efficiency of Micropile Groups" Proceedings of the Indian Geotechnical Conference,IGC 2016, 15-17 December, IIT Madras, Chennai,India.
16. Sharma,B and Deka, P. (2016) "A study on Compressibility,Swelling and Permeability Behaviour of Bentonite-Sand Mixtures". Proceedings of the Indian Geotechnical Conference, IGC 2016, 15-17 December, IIT Madras, Chennai,India.
17. Sharma, B and Chetia,M (2015); "Deterministic and probabilistic liquefaction potential evaluation of Guwahati city". Proceedings of Japanese Geotechnical Society Special publication. Vol.2 (2015) No.22 pp.823-828.
18. Sharma, B and Doley,M. (2015) " Probabilistic Assessment of liquefaction properties of Guwahati city". Proceedings of the 50th Indian Geotechnical conference, 17th – 19th December 2015, Pune, Maharashtra.
19. Gogoi ,N; Bordoloi, S and Sharma,B (2014) " A Model Study of Micropile Group Efficiency under Axial Loading Condition" International Journal of Civil Engineering Research. ISSN 2278-3652 Volume 5, Number 4 (2014), pp. 323-332
20. Sharma, B and Bora P.K.(2014). "A Study on Correlation Between Liquid Limit, Plastic Limit and Consolidation Properties of Soils" Indian Geotech Journal. DOI 10.1007/s40098-014-0128-0
21. Begum,N and Sharma,B(2014). "Determination of CBR value from compaction characteristics and index properties of fined grained soils." Proceedings of Indian Geotechnical Conference IGC-2014,December 18-20,2014, Kakinada, India.
22. Das,p; Sharma,L and Sharma,B.(2014). "Stability analysis of a Hillock with a 64-lakh litre capacity water tank- A case study." Proceedings of Indian Geotechnical Conference IGC-2014,December 18-20,2014, Kakinada, India
23. Talukdar, P., Sharma, B and Shridharan, A (2014); "Static method to determine compaction characteristic of soils". Proceedings of Indian Geotechnical Conference IGC-2014, December 18-20, 2014, Kakinada, India
24. Das, N; Sharma,B, Singh, S (2013): "Comparison In Undrained Shear Strength Between Low And High Liquid Limit Soils". International Journal of Engineering Research & Technology .Vol. 2 Issue 1, January- 2013 ISSN: 2278-0181.

25. Sharma, B and Buragohain, P (2013). "Behaviour of Micropile Groups under Oblique Pull Out Loads in sand". Indian Geotechnical Journal, DOI 10, 1007/s40.098-013- 0091-1
26. Sharma, B and Hazarika, P (2013) "Assessment of Liquefaction Potential of Guwahati city. A case study'. International Journal of Geotechnical and Geological Eng,Springer, Vol.31, issue5, pp1437-1452.
27. Sharma,B, Zaheer,S and Hussain,Z (2013)"An Experimental Model for Studying the Performance of Vertical and Batter Micropiles". Proceedings of the International conference of Geo-Characterization and Modeling for Sustainability. Geo Congress 2014., Atlanta, U.S.A.
28. Sharma,B; Khasyab,K; Bharali,Rand Sarma,B (2013) " A study of CBR properties of Soil reinforced with Jute Geotextile with reference to Road Construction in Assam". Proceedings of Indian Geotechnical Conference December 22-24, 2013, Roorkee.
29. Sharma,B, Rahman,S.K. and Saikia,B.D. (2013). "Use of contour maps for preliminary assessment of subsoil of Guwahati City. Proceedings of Indian Geotechnical Conference December 22-24, 2013, Roorkee.
30. Sharma,B, Rahman, S.K. and Saikia, B.D. (2013) "Use of GIS based maps for preliminary assessment of subsoil of Guwahati City". Proceedings of Indian Geotechnical Conference December 22-24, 2013, Roorkee
31. Sharma, B (2012) "Discussion of "Re-examination of Undrained Strength at Atterberg Limits Water Contents" By H. B. Nagaraj * A. Sridharan* H.M. Mallikarjuna". International Journal of Geotechnical and Geological Eng, Springer. Vol 30, issue 4, pp1035-1036.
32. Sharma, B, Saikia, B. D. and Hazarika, P.(2012) "Determination of Liquefaction Potential of Guwahati city (2012).Proceedings of the Indian Geotechnical Conference, December 13-15, 2012, New Delhi, India, pp1077-1081
33. Sharma, B (2011). "A model study of Micropiles subjected to Lateral Loading and Oblique loading conditions". Indian Geotechnical Journal, Vol. 41, No.4. :196-205.
34. Sharma,B (2011) "A study of Micropile groups subjected to Lateral loading conditions" Proceedings of Indian Geotechnical Conference. December 15-17, 2011, Kochi (Paper No. H-241)

Dr. Jayanta Pathak

1. "Retrofitting Open Ground Storey Building With Masonry Walls In Guwahati City" - 15th Symposium On Earthquake Engineering, December 11-13, 2016, IIT Roorkee.
2. "A Prognostics Earthquake Damage Scenario of Traditional and Conventional Housing in the Guwahati Urban Centre", International Journal of Scientific and Engineering Research (IJSER), Paper Published in IJSER Volume 7, Issue6, June 2016 Edition (ISSN 2229-5518).
3. "Analytical Study of Seismic Response of Traditional Assam-Type Housing In North-East India" -15th Symposium On Earthquake Engineering, December 11-13, 2014,IIT Roorkee
4. "Seismic Response of Steel Braced Pipe Racks and Technological platforms in Oil Refineries"-15th Symposium On Earthquake Engineering, December 11-13, 2014,IIT Roorkee

Dr. Mrinal Kumar Borah

1. Sonowal, R and M.K. Borah. 2017. Comparative evaluation of reference evapotranspiration estimation methods for Lakhimpur district of Assam, India. International Journal of Science and Research. Volume 6 (6) ISSN:2319-7064.
2. Nath, D and M.K. Borah. 2017. Experimental observations of flow characteristics over irrigated agricultural measures. International Conference on Agriculture and Human Development in India: Indigeneous Practices, Scientific view and Sustainability, September, 2017.
3. Gogoi, K., S. Sharma, G.Tirkey, C.K. Jain and M.K. Borah. 2016.Determining hydro-meterological parameters of Kulsi river basin using remote sensing and GIS. Presented at the first international conference on Sustainability in Civil Engineering held at Assam Engineering College, Guwahati, December, 2016.
4. Das. R, S. Sharma, G.Tirkey, C.K. Jain and M.K. Borah. 2016. Development of synthetic unit hydrograph for Kulsi river basin using remote sensing and GIS. Presented at the first international conference on Sustainability in Civil Engineering held at Assam Engineering College, Guwahati, December, 2016.

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21. Malaya, C. and Sreedeep, S. (2014). "Influence of range of suction measurement on soil-water characteristic curve", Geo-Congress-2014, Atlanta, Georgia
22. Koustuvee, K., Sridharan, A. and Malaya, C. (2014). "An investigation on the influence of grain shape and size on the shear strength of cohesionless soils", Geo- Congress-2014, Atlanta, Georgia
23. Malaya, C. and Sreedeep, S. (2013). "A study on unsaturated hydraulic conductivity of hill soil of north-east India", ISH Journal of Hydraulic Engineering, Taylor & Francis, London, UK, Vol. 19, No. 3, pp. 276-281
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26. Rupam, S. and Malaya, C. (2013). "Critical review on the parameters influencing liquefaction of soils", National Conference on Recent Advances in Civil Engineering, North Eastern Regional Institute of Science and Technology, Arunachal Pradesh, India
27. Koustuvee, K., Malaya, C. and Sridharan, A. (2013). "Shear strength behavior of quarry dust-sand mix", Indian Geotechnical Conference, Roorkee, India
28. Koustuvee, K., Sridharan, A., Chinmoy, K., Rahul, D. and Malaya, C. (2013). "A study on the influence of particle characteristics on shear strength behavior of quarry dust", Indian Geotechnical Conference, Roorkee, India
29. Chinumani, C. and Malaya, C. (2013). "A study on hygroscopic water content and residual water content of soils", Indian Geotechnical Conference, Roorkee, India

30. Malaya, C. and Sreedeep, S. (2013). "Comparison of suction measurements using two low cost methodologies", Indian Geotechnical Conference, Roorkee, India
31. Malaya, C. and Sreedeep, S. (2013). "Correlation between grain size distribution curve and unsaturated hydraulic conductivity curve of soils", Indian Geotechnical Conference, Roorkee, India
32. Malaya, C. and Sreedeep, S. (2012). "Critical review on the parameters influencing soil-water characteristic curve", Journal of Irrigation and Drainage Engineering, ASCE, Vol. 138, No. 1, page count: 8
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35. Malaya, C. and Sreedeep, S. (2012). "Estimated unsaturated hydraulic conductivity of hill soil of North-East India", National Conference on Hydraulic and Water Resources, Civil Engineering Department, Indian Institute of Technology Bombay, Maharashtra, India
36. Malaya, C. and Sreedeep, S. (2012). "A study on the influence of soil-moisture measuring methodologies on SWCC", Indian Geotechnical Conference, IIT Delhi, India
37. Malaya, C. and Sreedeep, S. (2012). "Factors affecting suction-water content relationship of a locally available soil", Indian Geotechnical Conference, IIT Delhi, India
38. Abhijit, D., Malaya, C., Srikanth, V. and Sreedeep, S. (2012). "Comparison of suction measurement technique for class F fly ash", Indian Geotechnical Conference, IIT Delhi, India
39. Chinumani, C. and Malaya, C. (2012). "A study on correlation between specific surface area and soil-water characteristic curve", Indian Geotechnical Conference, IIT Delhi, India
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water characteristic curve", International Conference on Solid Waste Management, Mysore, Karnataka, India

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42. Ellora, K. and Malaya, C. (2012). "A study on the influence of Atterberg limits on soil-water characteristic curve", International Conference on Solid Waste Management, Mysore, Karnataka, India
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44. Malaya, C. and Sreedeep, S. (2012). "Suction-water content relationship for hill soil of North-East India", International Conference on Environmentally Sustainable Urban Ecosystems, Civil Engineering Department, Indian Institute of Technology Guwahati, Assam, India
45. Malaya, C. and Sreedeep, S. (2012). "Determination of water retention and unsaturated hydraulic conductivity of an Indian fly ash", National Conference on Recent Developments in Civil Engineering, Civil Engineering Department, SRM University, Tamil Nadu, India
46. Malaya, C. and Sreedeep, S. (2012). "A critical review on soil-water retention curve", National Conference on Advances in Civil Engineering, Civil Engineering Department, Vasavi College of Engineering, Hyderabad, India
47. Malaya, C. and Sreedeep, S. (2011). "A study on the change in SWCC parameters of a local soil due to fly ash addition", Journal of Environmental Research and Development, G.SEED, Vol. 5, No. 4, pp. 972-977
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51. Malaya, C. and Sreedeep, S. (2011). "Effect of measurement procedures on water retention characteristics of sand-fly ash admixture", International Conference on Advances in Civil Engineering, K L University, Vijayawada, India
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Dr. Triptimoni Borah

1. Banakshi Bora and Dr. Triptimoni Borah, (2018). " Soil Water Characteristics Study in Unsaturated Soil" National Coonference on Advances in Civil Infrasgructure Engineeringn (ACIE-2018), held in Tezpur University, Tezpur, India from 16-17 February 2018.
2. Rubia Sultana and Dr. Triptimoni Borah, (2018). " Study of Effect of Dam Construction at Tibet on Brahmaputra Near Dibrugarh" National Coonference on Advances in Civil Infrasgructure Engineeringn (ACIE-2018), held in Tezpur University, Tezpur, India from 16-17 February 2018.
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8. Susheta Chanda and Triptimoni Borah (2016), “ Development of Rainfall-Runoff Modelling using ArcSWAT in the Subansiri Basin”, J. of Transactions on Engineering and Sciences, Vol.4, Issue 2, pp. 77-80, 2016.
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13. Gyanashree Bora and Triptimoni Borah (2016), “ Simulation of aerobic degradation of BTEX compounds by using GMS and RT3D”, 1st International Conference on Civil Engineering for Sustainable Development-Opportunities and Challenges (CESDOC 2016), from 19-21 December, 2016.
14. Borah, T. and Das, M. (2016), "Evaluation of the Sediment Concentration in Part of

Bhogdoi River in Assam, India, by ANN and MLR Geo-Chicago 2016: pp. 439-448. doi: 10.1061/9780784480168.044

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17. Borah, T., and Bhattacharjya, R. K. (2015), Development of an improved methodology for Pollution source identification by using ANN-GMS-GA model with sorting data." 9th world Congress, EWRA. June 10-13, 2015, Grand Cevahir Hotel-Istanbul Turkey.
18. Borah Triptimoni, and Bhattacharjya Rajib Kumar (2014), "Development of Unknown Pollution Source Identification Models Using GMS ANN Based Simulation-Optimization Methodology." *Journal of Hazardous, Toxic, and Radioactive Waste, ASCE, (DOI: 10.1061/(ASCE)HZ.2153-5515.0000242).*
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20. Borah Triptimoni, and Bhattacharjya Rajib Kumar (2014), "Identification of Unknown Pollution Sources in Groundwater Aquifer using ANN-GA based Simulation-Optimization Model". HYDRO-2014, ISH, NIT Bhopal, Dec 18-20, India.
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25. Borah Triptimoni, and Mahanta Chandan (2011),"Study of Key Parameters and Monitoring of Sediment Concentration by ANN Model in Brahmaputra River, Assam Journal on Civil Engineering, i-manager Publication, In the Mar-May'11.
26. Borah Triptimoni, and Bhattacharjya, Rajib Kumar (2011), "Simple simulation procedure of transient groundwater flow process using spreadsheet solver", 4th International Perspective on Water Resources and Environment: IPWE 2011, held at National University of Singapore, Singapore from 4-6 of January, 2011.

Dr. Pankaj Goswami

1. Post Construction Effect of Bridges on Morphology of River Brahmaputra, International journal of current Engineering & Scientific Research, June'2017
2. Study on Possibility of Utilisation of Waste Rubber Tyre as a Constituent of Low Grade Concrete- International journal of Research & Technologh Vol. 6 Issue 3, 2017 Pp. 264-268
3. Effect of soil properties on River Bank Erosion in Lower Assam Region- International journal of Res. in Engg. & Management Vol. 1 No. 1, 2016 Pp. 7-15
4. Analysis of Effect of Climate Change on Rainfall, Temparature & Discharge on River Brahmaputra- International journal of Innovative Research in Advanced Engineering, Issue 4, Volume 2 (April 2015), Pp 172-177
5. Slotted Pier as Scour Control Measures- 2nd International Conference on Biotechnology, Civil & Chemical Engineering (ICBCCE) Vol. 2 Issue 1, 2015 Pp. 38-42

Dr. Bharati Medhi Das

1. Medhi Das, B., Sarma, B. and Das, M.M. (2017) "Error analysis of friction factor formulae with respect to Colebrook-White equation" IJSR, Vol.6, Issue 3.
2. Medhi Das, B., Sarma, B. and Das, M.M. (2017) " solution of unsteady flow equations in high pressure pipe" IJIRSET, Vol.6, Issue 3, pp 4300-4312
3. Medhi Das, B., Das, M.M., and Sarma, B. (2016) "Evaluation of Numerical Solution Methods and Resistance Equations for Unsteady Flow in Surge Tank" IRJET, Vol.03,

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4. Medhi Das, B. and Sarma, B. (2016) "Solution of Non-Linear Unsteady Flow Equation in Surge Tank" IJEERT, Vol.4, Issue 9, pp 8 - 17.

Mrs. Puspanjali Sonowal

1. Vermicomposting of Dewatered Sludge from Pulp and Paper mill; International Journal of Environment and Waste Management, volume 5, issue-1, pp-24-34, 2014
2. Vermicomposting of solid Pulp and Paper mill Sludge (SPPMS) using Eudrilus Eugeniae Earthworm; international journal of Environmental sciences, volume 5, issue-3, pp-502-514, 2014
3. Stability Analysis of Dewatered Sludge of Pulp and Paper mill during Vermicomposting; Waste and Biomass Valorization, volume 5, issue-1, pp-19-26, 2014
4. Feasibility of Vermicomposting Dewatered Sludge from paper mills using Perionyx Excavatus; European journal of environmental sciences, volume 3, issue-1, pp-17-26, 2013

Mrs. Rupjyoti Bordoloi

1. Quantification of Land Use Diversity in the Context of Mixed Land Use; Procedia- Social and Behavioral Sciences, Volume 104, pp-563-572, December 2013

Dr. Sasanka Borah

1. Borah, S. and Doloi, H. (2018), "Sustainable Construction in the Context of Smart Villages in Assam", Proceedings of the Zero Energy Mass Custom Home (ZEMCH) 2018 International Conference, University of Melbourne, Australia, 29th January – 1 st February, 2018, ISBN: 978-0-7340-5486-9, pp. 367-378.
2. Choudhury, S., Baishya, P. and Borah, S. (2017), "Effect of Lime-Mud on Consolidation Characteristics of Soil", Indian Geotechnical Conference 2017 GeoNEst, 14-16 December, 2017, IIT Guwahati, India.
3. Borah, S., Goswami, D. And Pathak, J. (2016), "Site Response in Guwahati Region using Standard Spectral Ratio", International Journal of Research in Engineering and Tehnology, Vol. 5, No 4, pp.77-81.
4. Borah, S., Goswami, D. And Pathak, J. (2016), " Site Response Analysis : Guwahati City and CMP 2025", 6ICRAGEE, 6th International Conference on Recent Advances

in Geotechnical Earthquake Engineering and Soil Dynamics, August 1 – 6, 2016, IIT Roorkee Extension Centre, 20 Knowledge Park II, Greater Noida, India

5. Borah, S., Goswami, D. And Pathak, J. (2016), "Site Amplification: A study in Guwahati Region", 16th World Conference in Earthquake Engineering, Chile. (Abstract only)
6. Das, N.J., Deori, M. & Borah, S. (2016), "Site Response Analysis: A case study of Guwahati city", 1st International Conference on Civil Engineering for Sustainable Development-Opportunities and Challenges, 19-21 Dec, 2016, Assam Engineering College, Guwahati, Assam.
7. Borah, S., Goswami, G, & Pathak, J. (2016), "Site Response Studies for Sustainable Urban Planning - A Case Study of the Western Guwahati Region", 1st International Conference on Civil Engineering for Sustainable Development-Opportunities and Challenges, 19-21 Dec, 2016, Assam Engineering College, Guwahati, Assam.
8. Bordoloi, S., Yamsani, S.K., Garg, A. & Borah, S (2015), "Study on the efficacy of harmful weed species Eicchornia crassipes for soil reinforcement", Ecological Engineering, Vol 85, pp. 218-222.
9. Bordoloi, S., Yamsani, S.K., Sreedeep, S. & Borah, S. (2015), "Effect of compaction state on strength characteristics of fibre reinforced soil", 5 th Indian Young Geotechnical Engineers Conference (5IYGEC), 14-15 March, 2015, Vadodara.
10. Baruah, B & Borah, S. (2015), "Effect of Lime-mud on undrained shear strength of soil" 5 th Indian Young Geotechncial Engineers Conference (5IYGEC), 14-15 March, 2015, Vadodara.
11. Wahab, S.A., Sharma, A.K., Kalita, M. & Borah, S. (2015), "Ground Subsidence due to Tunnelling and Effects on Pile Foundations", Journal of Applied and Fundamental Sciences, Vol 1(2), pp. 237-244.

Ph.D. guided /Ph.D. awarded during the assessment period while working in the institute

- **Ph.D. guidance**

Name of the faculty	Number of students	Name of the student	Year of graduation	Topic
Dr. Palash Jyoti Hazarika	1 completed & 4 ongoing	Utpal Kumar Nath	2012	A Study of Pile Group Performanceunder Lateral Load
		M. H. Al-Rashid	continuing	Not yet decided

Name of the faculty	Number of students	Name of the student	Year of graduation	Topic
		Yudhajit Dey	continuing	Not yet decided
		Nilakshi Talukdar	continuing	Not yet decided
		Gitartha Kalita	continuing	Not yet decided
Dr. Binu Sharma	4 ongoing	Zakir Hussain	continuing	Response of Micropiles in Granular Soil Under Various Loading Conditions
		Gopal Banik	continuing	Not yet decided
		Amar Farooq Siddique	continuing	Liquifaction with Ground Response Analysis (tentative)
		Shafi Kamal Rahman	continuing	Swelling Compressibility and Permeability Characteristics of Bentonite Sand Mixture using Ethanol (tentative)
Dr. Jayanta Pathak	2 completed & 5 ongoing	N. N. Patowari	2017	Seismic vulnerability assessment and prognostic damage scenario of conventional and traditional housing around under centres of Assam
		Sasanka Borah	2017	Site Response Analysis and Soil Structure Interaction in High Seismic Region
		Partha Pratim Roy	continuing/ readmission reqd.	Comparative Study of Various Parameters and Optimal Design of Cable Stayed Bridge
		Jyotisman Saikia	continuing	Earthquake Vulnerability Study of Guwahati Urban Centre Based on Site Response (tentative)
		Nabanita Sharma	continuing	A Study of Deep Foundations Under Dynamic Load for Mid-Rise Buildings
		Karabi Bharadwaj	continuing	Cost Effective Retrofitting Solutions for Open Ground-Storyed Buildings in Urban Centre
		Deberaj Bailung Sonowal	continuing	Seismic Vulnerability Assessment of Highway Bridges
Dr. Mrinal Kumar Borah	2 ongoing	Dwipjyoti Mishra	continuing	Not yet decided
		Bhagirathi Taro	continuing	Not yet decided

Name of the faculty	Number of students	Name of the student	Year of graduation	Topic
Dr. Diganta Goswami	3 completed & 9 ongoing	Bibeka Nanda Choudhury	2014	Strength and deformation behavior of reclaimed land with reference to municipal solid waste dumping sites
		Indira B. Gogoi	2017	A study of river borne aggrgates of some rivers of Assam as construction materials
		Sasanka Borah	2017	Site Response Analysis and Soil Structure Interaction in High Seismic Region
		Ruby Das Borah	Continuing (Thesis submitted)	Integrated Remote Sensing and GIS Based Study on Urban Storm Water Fielding in Guwahati
		Ranjeet Bahadur Singh	continuing	A Study on the Complexities in River Valley Projects in the Himalayas
		Arunav Chakraborty	continuing	Three Dimensional Slope Stability Analysis of Landslides in Guwahati and Adjoining Areas-Causative Factors and Remedial Measures
		Ranu Gowala	continuing	Not yet decided
		Nabanita Sharma	continuing	A Study of Deep Foundations Under Dynamic Load for Mid-Rise Buildings
		Nabanita Baruah	continuing	Shallow tunneling through soft ground
		Nabanita Das	continuing	Stability of slope under dynamic loading with special reference to Guwahati city
		Bhaskar Jyoti Das	continuing	Not yet decided
		Pawan Kumar Singh	continuing	Not yet decided
Dr. Bipul Talukdar	3 completed & 4 ongoing	Debasis Deb	2011	Integrated Land and Water Resources Management of a Water Logged Area using RS and GIS Technology
		Sirajul Islam	2014	Development of Optimal Irrigation Strategies under Conjunctive use System.

Name of the faculty	Number of students	Name of the student	Year of graduation	Topic
		Pankaj Kr. Goswami	2014	Evaluation of Scour Depth around Bridge Piers.
		Nripen Mazumdar	continuing	Erosion Hazard Assessment of Brahmaputra River Bank in Lower Assam Region.
		Ranjit Das	continuing	Assessment of River Bank Erosion and Embankment Vulnerability of Some Rivers of Assam: A Geo-Spatial Aproach
		Priyanjit Purkaystha	continuing	Dynamic Modelling for Floodplain Management in Assam
		Rhitwika Barman	continuing	Sediment Transporation Characteristics and Modelling of Brahmaputra River.
Dr. Bibhash Sarma	2 completed & 4 ongoing	Lakshmi Rani Konwar	2017	A Study of Resistance to Open Channel and Pipe Flow
		Bharati Medhi Das	2018	Study of Non-Linear Unsteady Flow in Surge Tank and High Pressure Pipes
		Jahanur Rahman	continuing	Irrigation Development of Dhansiri Basin
		Krishna Kamal Das	continuing	Water Resources Development of Kulsi River Basin
		Junaid Ahmed Choudhury	continuing	Water Resources Development of Buridihing River Basin
		Tsangpo Kashyap	continuing	Yet to be finalised
Dr. Utpal Kumar Misra	2 ongoing	Pranjal Buragohain	continuing	Hydrological and Hydro-Chemical Study of Basistha Watershed, North East India with Special Reference to Sustainable Water Resource Management
		Biswadeep Bharali	continuing	A Proposed Model of Channel Routing for Gauged and Ungauged Basin

Name of the faculty	Number of students	Name of the student	Year of graduation	Topic
Dr. Utpal Kumar Nath	6 ongoing	Noorjahan Begum	continuing	Effect of Climate Parameters on Slope Stability- A Study in Greater Guwahati Area
		Bhaskarendra Nath Patowary	continuing	Parametric study of Piled Raft Foundation
		Mukul Kalita	continuing	Dynamic behaviour of Piled Raft Foundation
		Mitali Mandal	continuing	Study on Re-Strengthening of RCC Structures
		Angana Kakoty	continuing	A Study on the River-Borne Fine Aggregates and Hill Quarry Stone-Dust for Construction Purpose
		Anku Medhi	continuing	Study of Behavior of Closely Spaced Footings
Dr. Malaya Chetia	1 ongoing	Tinku Kalita	continuing	Not yet decided

- **Faculty receiving Ph.D. during the assessment period**

Name of the faculty	Name of guide	Year of graduation	University	Topic
Dr. Mrinal Kumar Borah	Dr. Madan Mohan Das	2011	Gauhati University	Inflitration into Non-homogeneous Soils
Dr. Utpal Kumar Nath	Dr. Palash Jyoti Hazarika	2012	Gauhati University	A Study of Pile Group Performance under Lateral Load
Dr. Malaya Chetia	Dr. Sreedeep S.	2012	IIT Guwahati	A study on Measuring Methodologies and Critical Parameters Influencing Soil Suction-Water Content Relationship
Dr. Pankaj Goswami	Dr. Bibha Das Saikia & Dr.	2014	Gauhati University	Evaluation of Scour Depth around Bridge Piers

Name of the faculty	Name of guide	Year of graduation	University	Topic
	Bipul Talukdar			
Dr. Triptimoni Borah	Dr. Rajib Kumar Bhattacharjya	2014	IIT Guwahati	Development of Efficient Pollution Source Identification Model using ANN-GMS-GA Based Simulation-Optimization Approach
Dr. Sasanka Borah	Dr. Diganta Goswami & Dr. Jayanta Pathak	2017	Gauhati University	Site Response Analysis and Soil Structure Interaction in High Seismic Region
Dr. Bharati Medhi Das	Dr. Madan Mohan Das & Dr. Bibhash Sarma	2018	Gauhati University	Study of Non-Linear Unsteady Flow in Surge Tank and High-Pressure Pipes

Sponsored Research (5)

☐ Funded research:

Name of the faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Jayanta Pathak	Earthquake Damage and Loss Estimation of Guwahati City for Scenario Earthquakes – a step towards Real-Time Earthquake Damage and Loss Information System" (short ELIAS)-in collaboration with NORSAR (Earthquake Hazard and Risk, Stiftelsen NORSAR, Norway) and supported by IIT Roorkee	Assam State Disaster Management Authority(ASDMA) , Govt. of Assam	**2016 - 2018**	98,95,200/-	2 years
Dr. Utpal Kumar Nath	Full Scale Experimental Study of Pile cap Lateral Resistance	OIL-IEI, ASC H P Barua Fellowship-2014	**2014**	5,00,000/-	1 year

Name of the faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Diganta Goswami	Investigation of Deformation Modulus & Characteristics of soft Tertiary Rock at Pare HE Project by Measuring Deformation in open and Underground Excavation	North Eastern Electrical Power Corporation Ltd (NEEPCO)	**2014**	24,93,000/-	1 year
Dr. Jayanta Pathak	EQRisk - A Large Research Project on Earthquake Hazard and Risk Reduction In India, In Collaboration With NORSAR and NGI, Norway	Norwegian Research Council, Norway	**2012-2016**	NOK 419,000 Rs.40,00,000/- (approx)	4 years
Dr. Jayanta Pathak	Status Survey of School and Hospital Buildings in Guwahati City Structural and Non-structural Vulnerability to Earthquake, Wind, Flood & Fire	Assam State Disaster Management Authority (ASDMA) , Govt. of Assam	**2011 - 2014**	53,00,000/-	2 years
Dr. Bipul Talukdar	Modernization of Hydraulics Laboratory	All India Council for Technical Education (AICTE), Govt. of India	**2011-2012**	14,62,000/-	1 year
Dr. Bipul Talukdar; Dr. Utpal Kumar Misra	Mathematical Modeling of an Erosion Affected Reach of River Brahmaputra	All India Council for Technical Education (AICTE), Govt. of India	**2011-2012**	18,00,000/-	2 years
Dr. Bipul Talukdar	Evaluation of Scour Depth Around Bridge Piers	All India Council for Technical Education (AICTE), Govt. of India	**2011-2012**	14,68,795/-	2 years
Dr. Palash Jyoti Hazarika	Establishment of Concrete Quality Testing Laboratory	All India Council for Technical Education (AICTE), Govt. of India: (RPS) 2008	**2008**	9, 80,000/-	1 year
Dr. Bipul	Modernization of Environmental Engineering	All India Council for Technical	**2007-2008**	12,50,000/-	1 year

Name of the faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Talukdar	Laboratory	Education (AICTE), Govt. of India			
Dr. Bibhash Sarma	Planning for Optimal Utilization of Water in Three Proposed Reservoirs in North-East India	Department of Science & Tehnology (DST), Govt. of India; DST No: NRDMS/11/1101/ 2006 dated 16.06.2006	**2006-2009**	9, 86,230/-	3 years (01/09/2006 to 30/08/2009)
Dr. Jayanta Pathak	Earthquake Vulnerability Study for Risk Assessment of Guwahati Urban Centre	Department of Science & Tehnology (DST), Govt. of India	**2006-2008**	7,50,000/-	2 years
Dr. Bipul Talukdar	Modernization of Computational Laboratory	All India Council for Technical Education (AICTE), Govt. of India	**2005-2006**	5,00,000/-	1 year
Dr. Palash Jyoti Hazarika	Preparation of Liquefaction potential Map of Guwahati City	Department of Science & Tehnology (DST), Govt. of India, 2004	**2004**	26,70,000/-	3 years
Dr. Bipul Talukdar	Explicit Consideration of Reliability in Multiobjective Stochastic Dynamic Programming Models for Reservoir Planning and Operation Problems	All India Council for Technical Education (AICTE), Govt. of India	**2000-2001**	2,50,000/-	2 years
Dr. Palash Jyoti Hazarika	Establishment of Computer Aided Design and Drafting Centre	All India Council for Technical Education (AICTE), Govt. of India: (TAPTEC) 1993	**1993**	8,00,000/-	1 year
BJD	MODERNISATION OF TRANSPORTATION ENGINEERING LABORATORY" under MODROBS	All India Council for Technical Education (AICTE), Govt. of India		14,96,000/-	1 year

Name of the faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Bipul Talukdar	Evaluation of Master Plans made during 10th Plan	MoWR (Brahmaputra Board)		25,00,000/-	1 year
Dr. Jayanta Pathak	Technical Safety Audit of Water Supply System and Network In Guwahati City for Earthquake	In collaboration with Guwahati Municipal Corporation (GMC), Assam		33,00,000/-	2 years
Dr. Jayanta Pathak	Technology development for seismic Vulnerability Reduction of Traditional & Conventional housing of Rural areas - RPS project	All India Council for Technical Education (AICTE), Govt. of India		14,00,000/-	1 year
Dr. Utpal Kumar Nath	Rapid Identification of Anomalous Piles using Pile Integrity Tester	Department of Science & Tehnology (DST), Govt. of India		5,00,000/-	2 years
Dr. Sasanka Borah	Coordinator-Training Programme on Earthquake Resilient Technology for Engineers	Assam State Disaster Management Authority (ASDMA), Govt. of Assam, India		4,86,000/-	28/11/2016 to 07/12/2016

Development activities (10)

Research laboratories

Sr. No.	Name of the Laboratory	Equipment/Software Name
1.	Transportation Engineering	• Wheel testing apparatus • Wheel rut shaper • Mastic Asphalt Test Machine • Asphalt Mixture Density Meter • Devel Abrasion Test Apparatus

Sr. No.	Name of the Laboratory	Equipment/Software Name
2.	Geotechnical Engineering	• Drop cone test apparatus • Electrical Resistivity apparatus • Large Direct Shear apparatus • Static Cone Penetrometer • Point Load Apparatus • Triaxial test apparatus (Soil and Rock)
3.	Hydraulics Lab	• Eco-sounder • Digital Velocity meter • Automatic weather station
5.	Strength of Materials Lab	• Rebound Hammer • Ultrasonic Pulse Velocity meter

Product development:

Android applications have been developed for-

- Traffic Volume Analysis
- Analysis of three hinges arch
- Analysis of beam
- Calculation of pump capacity
- Plastic moment capacity

Working Models:

- BEST PRACTICE DOCUMENT drafted by CED AEC for Status Survey of Hospital & School Buildings in Guwahati City and Retrofitting Solutions- published by Department od Admin Reform and Public grivances https://www.darpg.gov.in/financialassistance/status-survey-hospital-school-buildings-guwahati-city-and-retrofitting-solutions
- Design charts for factor of safety for various slope angle, slope height for dry, saturated and submerged condition for soil with various strength parameters (c- Φ)

Consultancy (from Industry) (5)

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Bipul Talukdar	Quality assurance of KV Building at Rangia, Kamrup	Arunachal Pradesh Public Works Department	2018	5,40,000/-	
Dr. Diganta Goswami	Subsoil investigation at MIMER, Falkawn, Aizawl, Mizoram	HSCC(India) Ltd	2018	4,72,000/-	
Dr. Jayanta Pathak	Consultancy services for Pre-Construction stage - for Power System control centre at Guwahati	POWER SYSTEM OPERATION CORPORATION LTD. (a Govt. of India Enterprise), North Eastern Regional Load Despatch Centre (NERLDC) Dongteih, Lower Nongrah, Lapalang, Shillong - 793006, Meghalaya	2017 - 2019	31,50,000/-	2 years
Dr. Bipul Talukdar	Design and Estimation of KV Buulding in Arunachal Pradesh	Urban Development Department, Arunachal Pradesh	2017	13,67,500/-	
Dr. Diganta Goswami	Slope Stability Analysis and Design of Filter Drains at Chainage 4.3km (Near Dakhala Hills) under the scheme "Assam Integrated Flood and River Bank Erosion Management Project, subproject Palashbari	Flood and river erosion management Agency Assam (FREMAA)	2017	2,16,200/-	

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Bipul Talukdar; Dr. Palash Jyoti Hazarika; Dr. Utpal Kumar Nath	Structural Soundness of Construction of Ph-A (Balance) Building for JNV at Distt. Williamangar (Meghalaya)	HIMALAYA CONSTRUCTION, Tawang, Arunachal Pradesh	2017	6,81,596/-	1 month
Dr. Jayanta Pathak	Expert Inputs in Design and Retrofitting ; Package No. DoF/SHCDM/DSC/03 : Supporting Human Capital Development in Meghalaya state, India , project No. 46166-001	Asian Development Bank (ADB) :: Analysis and design of new and retrofitting of existing school buildings and facilities	2015-till date	34,94,400/-	continuing
Dr. Bibhash Sarma	River model study for the scheme "Protection of Borbeel, Muwamari and Goroimari from the erosion of river Brahmaputra	Water Resources Department, Govt. of Assam	2015	6,00,000/-	3 months
Dr. Bibhash Sarma	Name: Vetting of DPR of the scheme "Anti erosion measures to protect villages Kanthalguri, Jamunaguri, Silbari, Anandapur and Janata Bazar from the erosion of river Langkar on L/B"	Water Resources Department, Govt. of Assam	2015	50,000/-	1 month

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Diganta Goswami	Plate load test and Proctor's light compaction test in and around switchyard area under KaHEP, Kimi, Arunachal Pradesh		2015	2,14,115/-	
Dr. Bibhash Sarma	Construction material testing for different reputed companies working in North-East India	Individual Companies	2014-2018	6,00,000/-	Immediate response for each case
Dr. Bibhash Sarma	Evaluation study of Master Plans prepared by Brahmaputra Board during Xth Plan	Ministry of Water Resources, Govt. of India	2010	10,00,000/-	6 months
Dr. Bibhash Sarma	Review Report for Drainage System at Bamboo Technology Park Chaygaon, Dist.- Kamrup, Assam	Bamboo Technology Park Chaygaon	2009	50,000/-	1 month
Dr. Bibhash Sarma	Soil investigation, planning and design of Dibrugarh town protection embankments	Water Resources Department, Govt. of Assam, funded by Asian Development Bank	2008	12,00,000/-	6 months
Dr. Bibhash Sarma	Evaluation study of many flood mitigation and river bank protection schemes in Assam	Water Resources Department, Govt. of Assam	2007-2013	Rupees twenty lakh (Rs.29,00,000/-)	30 months (scattered duration)
Dr. Bipul Talukdar;	Feasibility Study for Structural	HSCC(India) Ltd		5,00,000/-	1 month

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Palash Jyoti Hazarika; Dr. Utpal Kumar Nath	Stability for Various Blocks of Referal Hospital Campus at Falkawn, Mizoram				
Dr. Diganta Goswami	Rapid Visual Screening of Landslide Vulnerable Areas of Guwahati	District Disaster Management Authority, Kamrup (Metro)		4,00,000/-	
Dr. Diganta Goswami	Determination of Shear Strength Parameters of rock –to-rock interface and concrete-to-rock interface for Pare Hydro Electric Power project by conduction of insitu shear test, in-situ wedge shear test for determination of shear strength parameters for slope stability analysis and excavation planning for Pare Dam at Arunachal Pradesh, India	North Eastern Electrical Power Corporation Ltd (NEEPCO)		6,50,000/-	
Dr. Diganta Goswami	Design for Stabilization of slope by soil nails at Halflong-Jatinga stretch, India	Indian Railways			

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Dr. Diganta Goswami	Determination of shear strength parameters of rock-to-rock interface and rock –to-concrete interface by conducting Insitu Shear Test for the proposed 75.0M Bichom Dam, Kameng HE project, Arunachal pradesh	North Eastern Electrical Power Corporation Ltd (NEEPCO)		11,12,364/-	
Dr. Diganta Goswami	Geotechnical Investigation for Numaligarh Township of Numaligarh Refinery Limited, Numaligarh, Assam, India	Numaligarh Refinery Limited			
Dr. Diganta Goswami	Static cone penetration testing and preparation of geotechnical report for Oil Storage Tanks of Numaligarh Refinery limited, Assam, India	Numaligarh Refinery Limited			
Dr. Diganta Goswami	Geotechnical Investigation for Transit Building of Indian Institute of Technology Guwahati, Assam, India	Indian Institute of Technology Guwahati			
Dr. Jayanta	Review of Design and Proof				

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Pathak	Checking of Building (above G+7) in Guwahati Metropolitan Area - member of the Review Panel - 75 project Reviewed (approx)				
Dr. Jayanta Pathak	Review of Design and Proof Checking of Bridges and ROBs				
Dr. Jayanta Pathak	Review of design of DHDT extention work at BRPL IOCL Refinery				
Dr. Bipul Talukdar	Stability Checking of the Building Structures/ Foundations at Lakwa Plant (Phase I)	GAIL (lndia) Limited		2,37,000/-	1 month
Dr. Bipul Talukdar	Stability Checking of the Building Structures/ Foundations at Lakwa Plant (Phase II)	GAIL (lndia) Limited		4,10,000/-	1 month
Dr. Bipul Talukdar	Evaluation study of various FMP schemes of State Water Resources Department particularly at Biswanath chariali, Morigaon, Nalbari, N. Lakhimpur, Gohpur, Dhubri	Water Resources Department, Govt. of Assam		5,00,000/-	6 months

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
	ets				
Dr. Binu Sharma	Project on Soil Liquefaction study	Department of Science and Technology, Govt. of India			
Dr. Binu Sharma	Soil consultancy on Kokrajhar University, Guwahati University, IIT(Guwahati), Numaligarh refinery	Respective institutions/organizations			
Dr. Binu Sharma	Flood protection embankment for proposed NEIFRM (ADB) project at Dibrugarh,Assam	Asian Development Bank (ADB)			
Dr. Binu Sharma	NEIFRM (ADB) project in Arunachal pradesh	Asian Development Bank (ADB)			
Dr. Pankaj Goswami	Involved in Nos. of small scale consultancy work amounting +20 lacs from 2006- to 2018	-		more than 20,00,000/-	
Mr. Bhaskar Jyoti Das	Stability analysis of B/Dyke along L/B of river Brahmaputra from Dhing to Hilloikhunda (Extension of embankment from Pabahakati to Kasasila hill) at Morigaon,Assam				

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Mr. Bhaskar Jyoti Das	Stability Analysis of Flood Protection Embankment for Proposed NEIFREM (ADB) Project at Dibrugarh, Assam				
Mr. Bhaskar Jyoti Das	Geotechnical Investigation for proposed North eastern integrated flood and river erosion management (NEIFREM) project at project sites of Pasighat, Roing, Miao,Doimukh and Daporijog in Arunachal Pradesh				
Mr. Bhaskar Jyoti Das	State Technical Agency (STA), Prime Minister Gram Sadak Yojana (PMGSY). STA is involved in the scrutiny of Detailed Project Reports and Monitoring as per requirement for the roads being proposed to be taken up by the Assam State Public Works Department under PMGSY scheme,				

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
	MoRD, Govt. of India,				
Mr. Bhaskar Jyoti Das	Detailed soil investigation report of proposed Nalbari Engineering College, Government of Assam				
Mr. Bhaskar Jyoti Das	Detailed soil investigation report of proposed Udalguri Engineering College, Government of Assam				
Mr. Bhaskar Jyoti Das	Detailed soil investigation report of proposed Nagaon Engineering College, Government of Assam				
Mr. Bhaskar Jyoti Das	Geotechnical and Geological investigation at Tenga Dam, NEEPCO, Arunachal Pradesh				
Mr. Bhaskar Jyoti Das	Geotechnical and Geological investigation at Bishom Dam, NEEPCO, Arunachal Pradesh.				

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
Mr. Bhaskar Jyoti Das	Geotechnical investigation of proposed 100 bedded hospital at Naharlagun, Arunachal Pradesh tested on behalf of HSCC (India) Ltd				
Mr. Bhaskar Jyoti Das	Geotechnical Investigation for proposed 1st CNG station at Dibrugarh Town, Assam tested on behalf of Assam Gas Company Limited (AGCL), Duliajan				
Mr. Bhaskar Jyoti Das	Field compaction test for 132/33 kV substation at Seppa, Arunachal Pradesh on behalf of POWERGRID.				
Mr. Bhaskar Jyoti Das	Field compaction test for 132/33 kV substation at Pasighat, Arunachal Pradesh on behalf of POWERGRID				
Mr. Bhaskar Jyoti Das	Geotechnical investigation for proposed multistoried Building at Haflong tested on behalf of Executive Engineer (Agri),				

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
	Dima Hassao Division, Haflong				
Mr. Bhaskar Jyoti Das	Determination of Bearing Capacity of Soil at AGCL Industrial Area, Duliajan, Assam				
Mr. Bhaskar Jyoti Das	Geotechnical investigation for proposed development of Integrated Check Post at Dawki (Meghalaya) along Indo-Bangladesh Border tested on behalf of RITES Limited				
Mr. Bhaskar Jyoti Das	Geotechnical Investigation for Sewage Treatment Plant, Assam Rifles at Jorhat, Assam, Tested on behalf of NPCC, GoI Enterprise				
Mr. Bhaskar Jyoti Das	Geotechnical Investigations for MR-Accommodation for 3 Workshop, Assam Rifles Rifles at Jorhat, Assam, Tested on behalf of NPCC, GoI Enterprise				
Mr. Bhaskar Jyoti Das	Slope stability analysis of site located at Devkota Nagar, West				

Name of the Faculty	Project Title	Funding Agency	Year	Amount (in Rs.)	Duration
	BOragaon, Maligaon, Guwahati for Mr Rabi Sapkota				
Mr. Bhaskar Jyoti Das	Geotechnical investigation for the construction of proposed Pragjyoti Textile Park at Sipajhar, Darrang, Assam				

Faculty Performance Appraisal and Development System (FPADS) (30)

A well-defined system for faculty appraisal for all the assessment years (10)

Performance-based Appraisal System (PBAS)

All the regular faculties of the department of civil engineering need to fill up a form as a part of annual self-assessment for performance-based appraisal system. The faculties fill up the details asked in the form such as academic staff college orientation, refresher courses attended during the year and along with his/her academic and professional achievements. Principal then prepares an Annual Confidential Report (ACR) and sends it to the state government for necessary actions. Promotions, increments are related to this Performance based appraisal data. Fig shows the format of the PBAS-Self Assessment form.

Fig. Format of the annual self-assessment for performance-based appraisal system (PBAS)

Sharing of achievement of faculties with the stakeholders through Aadharshila

Faculty members of civil engineering department of Assam Engineering College go through a unique way of sharing achievements with the stakeholders of the department. At the beginning of every calendar year, in the month of January, the performance of the faculties in terms of the events organized/participated, conference attended, list of publications and any other activities involved during the last year is collected by the department. and is published in the departmental annual newsletter named "Aadharshila". The newsletter is then distributed among all the internal and external stakeholders. It is also published online in the departmental website and is available for public also.

Implementation and effectiveness (20)

Performance-based Appraisal System (PBAS)

During promotion of any faculty, the PBAS becomes instrumental. However, in unfavourable cases, a particular faculty may also receive a warning from the government of Assam and in extreme cases may have to face punitive measure.

Sharing of achievement of faculties with the stakeholders through Aadharshila

This procedure was started way back in the year of 2013 only and is being followed ever since. The achievement of the faculties as well as the department are reflected in the newsletter, which is also available online. Through the newsletter, the stakeholders get an opportunity to learn about various activities of the department and interaction with the outside world. This system of publishing the achievements of the faculties creates a healthy atmosphere of constructive competitiveness.

Visiting/Adjunct/Emeritus Faculty etc. (10)

Retired faculty

Name of faculty	Association with the Institution	Date of joining	Interaction per year (hours)	Total years of interaction	Total hours
Dr. Indira Baruah Gogoi	2016	01/03/2016	50+	2.2	110+

Guest faculty

Name of faculty	Association with the Institution	Date of joining	Interaction per year (hours)	Total years of interaction	Total hours
Mr. Prasenjit Saha	2013	01/08/2013	50+	5	250+
Ms. Mitali Mandal	2015	01/08/2015	50+	3	150+
Mrs. Rhitwika Barman	2016	08/01/2016	50+	2.5	125+
Mrs. Anindita Bhattacharjya	2017	01/03/2017	50+	1.2	60+