CURRICULUM VITAE

Area of specialization: Engineering Geology; Geology; Turbulent flow; Fluvial geomorphology; River hydraulics; Experimental fluid mechanics; Cohesive erosion; Sediment transport; Coastal erosion; Surface wave dynamics.

Personal Information			
Name	VIKAS KUMAR DAS		
Date of Birth	19/01/1992	Age (In Years)	30
Gender	MALE	Marital Status	MARRIED
Nationality	INDIAN	Religion	HINDU
Mother's Name	UMA DAS		
Father's Name	BIJAY KUMAR DAS		
Physical Disability,	No		

Address	
<u>Mailing Address</u>	
231/A, Sodepur Road Post Office: Haridevpur, Kolkata: 700082 West Bengal, India	
Email ID:	k.d.vikas5@gmail.com
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Educational Qualifications (Class X and onwards)					Subjects
Name of the Degree exam	**University/ Institution/**	**Year of Passing**	**Percentage of Marks**	**Division/ Class/CGP**	
Secondary/equivalent	CISCE	2009	80.71	First	English; Hindi; Environmental Education; History, Civics and Geography; Mathematics; Science; Computer Applications
Higher secondary/equivalent	CISCE	2011	81.43	First	English; Environmental Education; Hindi; Mathematics; Physics; Chemistry; Computer Science
B.SC.	JADAVPUR UNIVERSITY	2014	73.1	First	Geological Sciences
M.SC.	JADAVPUR UNIVERSITY	2016	77.5	First	Applied Geology
GATE		Qualified GATE, 2016			
NET Exam:		Qualified Lectureship (**LS**), 2017			
Ph.D.		**Degree Awarded**	[√]		
		Regular mode	[√]		

Title of Thesis/Dissertation		Name of the University / Year of Award	Name of Supervisor
Ph.D.	Flume Study on Cohesive River Bank Erosion: Process and Mechanisms	JADAVPUR UNIVERSITY	Dr. Susanta Chaudhuri and Dr. Koustuv Debnath

Details of Ph.D

Title of the thesis	Flume Study on Cohesive River Bank Erosion: Process and Mechanisms
Date and Year of joining	22nd November, 2016
Institute	Jadavpur University
Date and Year Completion	17th February, 2021
Name of Research Supervisor	1. Dr. Susanta Chaudhuri of the Department of Geological Sciences, Jadavpur University. 2. Prof. Koustuv Debnath of the Aerospace engineering and Applied Mechanics, Indian Institute of Engineering Science and Technology, Shibpur.

No. of Publications:						
Refereed Journal	Published	21	Accepted	1	Book Chapters	0
Books			0	Conference Proceedings		10

Research Papers in Peer-Reviewed or UGC listed Journals

Sl. No.	Title of the paper, with Journal's name, Year of publication, Vol. No., Page Nos., etc.	Impact Factor	Authors
1.	**"Riverbank stabilization based on the modulation of the near bank turbulence scales" 2021.** *Environment, Development and Sustainability*, vol. pp.1-24.	3.219	**Vikas Kumar Das**, Sunil Hansda, Koustuv Debnath, Susanta Chaudhuri
2.	**"Effect of turbulent structures on the riverbank erosion due to tidal influence: A case study from the Rupnarayan River, eastern India" 2021.** *Journal of Earth System Science*, vol.130(2), pp.1-18	1.432	**Vikas Kumar Das**, Koustuv Debnath, Sayahnya Roy, Krishnendu Barman, Sunil Hansda, Bijoy Singha Mazumder.
3.	**"Near bank turbulence of a river bend with self-similar morphological structures" 2020.** *CATENA*, vol.191, p.104582.	5.198	**Vikas Kumar Das**, Krishnendu Barman, Sayahnya Roy, Susanta Chaudhuri, Koustuv Debnath.
4.	**"Assessing Hydraulic Performance of Bamboo Logs in Riverbank Stabilization: A Case of Sundarbans, India" 2020.** *Hydrological Sciences Journal*, vol.66, pp.134-151.	3.787	**Vikas Kumar Das**, Sunil Hansda, Koustuv Debnath, Susanta Chaudhuri, Bijoy Singha Majumder.
5.	**"Cohesive river bank erosion mechanism under wave- current interaction: a flume study" 2020**. *Journal of Earth System Science*, Vol.129(1), pp.1-20.	1.423	**Vikas Kumar Das**, Sayahnya Roy, Krishnendu Barman, Susanta Chaudhuri, Koustuv Debnath.
6.	"**Pier scours in fine-grained non-cohesive sediment and downstream siltation, an experimental approach" 2020,** *Physical Geography*, vol.5: 1-18.	2.086	**Vikas Kumar Das**, Susanta Chaudhuri, Krishnendu Barman, Sayahnya Roy, Koustuv Debnath.
7.	**"Investigations on undercutting processes of cohesive river bank" 2019.** *Engineering Geology*, vol.252, pp.110-124.	6.755	**Vikas Kumar Das**, Sayahnya Roy, Krishnendu Barman, Koustuv Debnath, Susanta Chaudhuri, Bijoy Singha Majumder.
8.	**"Study of clay-sand network structures and its effect on river bank erosion: an experimental approach" 2019.** *Environmental Earth Science*, vol.78, pp. 591-609.	2.784	**Vikas Kumar Das**, Sayahnya Roy, Krishnendu Barman, Susanta Chaudhuri, Koustuv Debnath.
9.	"**Characteristics of intermittent turbulent structures for river bank undercut depth increment" 2019.** *Catena*, Vol-172, 356-368.	5.198	Sayahnya Roy, **Vikas Kumar Das**, Koustuv Debnath.
10	"**Effect of the Wave on Sediment Suspension and the Morphological Pattern of Ripple Formation.**" 2021. Ocean Science Journal, pp.1-17.	1.053	Subhadeep Sarkar, **Vikas Kumar Das,** Krishnendu Barman**,** Koustuv Debnath,
11.	"**An appraisal of geohydrological status and assessment of groundwater quality of Indpur Block, Bankura District, West Bengal, India"**	3.874	Moumita Palmajumder, Susanta Chaudhuri, **Vikas Kumar Das**, Sisir K

	2021. *Applied Water Science,* Vol 11(3). Pp. 1-21		Nag
12.	**"Turbulent flow characteristics in the eroded region of the side-wall bank" 2020.** *Environmental Engineering & Management Journal (EEMJ),* Vol 19(8). pp. 1-18	0.916	Krishnendu Barman, Pankaj Kumar Raushan, **Vikas Kumar Das**, Sayahnya Roy, Sunil Hansda, Koustuv Debnath
13.	**"Formation and migration of ripple pattern due to pure wave" 2020.** *ISH Journal of Hydraulic Engineering*, Vol. 20: pp. 1-13	-	Subhadeep Sarkar, Koustuv Debnath, **Vikas Kumar Das**, Bijoy S Mazumder.
14.	**"Experimental Investigation of Undercut Mechanisms of River Bank Erosion Based on 3D Turbulence Characteristics" 2020**. *Environmental Processes*, vol. 7(1), pp.341-366.	-	Sayahnya Roy, Krishnendu Barman, **Vikas Kumar Das**, Koustuv Debnath, Bijoy Singha Mazumder
15.	**"Hydrogeochemistry and Overall Appraisal of Groundwater Status of Taldangra Block, Bankura District, West Bengal, India" 2020.** *Asian Journal of Water, Environment and Pollution,* Vol. 17(4), pp. 37-46	-	Moumita Palmajumder, Susanta Chaudhuri, **Vikas Kumar Das**, Sisir K Nag.
16.	**"Effect of clay fraction on turbulence characteristics of flow near an eroded bank" 2019.** *Journal of Hydrology,* Vol-571, 87-102.	5.722	Krishnendu Barman, Sayahnya Roy, **Vikas Kumar Das**, Koustuv Debnath.
17.	**"Modulation of the recirculation region due to magneto hydrodynamic flow" 2019**. *Engineering Science and Technology, an International Journal,* 22(1), pp.282-293.	3.219	Sayahnya Roy, Subhro Ghoshal, Krishnendu Barman, **Vikas Kumar Das**, Sohanjit Ghosh, Koustuv Debnath.
18.	**"Hydrogeochemical Investigation and Qualitative Appraisal of Groundwater of Taldangra Block, Bankura District, West Bengal, India"2019.** *INDIAN GROUND WATER***,** Vol- XIII, 101-125.	-	Moumita Palmajumder, Susanta Chaudhuri, **Vikas Kumar Das**, Avik Das, Sisir K Nag.
19.	**"Embankment Breaching at Indian Sundarban– an Assessment on Altered Primary Sediment Index Properties and Fluvial Flow Parameters" 2020.** *ISH Journal of Hydraulic Engineering.*	-	Susanta Chaudhuri, **Vikas Kumar Das**, Koustuv Debnath, Sunil Hansda.
20.	**"Does turbulence show fractal structure within a dynamic undercut of an alluvial riverbank?"** *Chaos, Solitons and Fractals, Vol- 157, 111998*	5.994	**Vikas Kumar Das**, Koustuv Debnath, Bellie Sivakumar
21.	**"Temporal modulation of turbulence structure over progressive erosion boundary under influence of wave current combined flow."** *Environmental Fluid Mechanics, 1-31.*	2.551	Sunil Hansda, **Vikas Kumar Das**, Koustuv Debnath
22.	**"Turbulence effect on the mechanics of ripple formation under regular wave".** *Journal of Earth System Science (Accepted)*	1.432	Subhadeep Sarkar, Sayahnya Roy, Krishnendu Barman, **Vikas K. Das** And Koustuv Debnath

h-index = 7
i10-index =6

Papers presented in Conferences/Seminars

Sl. No.	Title of the Invited Lecture/Paper	Title of Conference/ Seminar etc.	Organised by	Date of Presentation	Level	Authors
1.	"Embankment breaching at Indian Sundarban – an assessment on altered soil index properties and fluvial flow parameters"	INTERNATIONAL CONFERENCE on Recent Advances in Civil Engineering for Sustainable Development (RACESD- 2021)	Department of Civil Engineering, Maulana Azad National Institute of Technology, Bhopal in online mode	February, 2021	International (within India)	**Vikas Kumar Das**, Susanta Chaudhuri, Koustuv Debnath.
2.	Effect of clay-sand mixture on river bank morphology and erosion,	34th IAS Meeting of Sedimentology - International Conference on Sedimentology to face societal challenges on risk, resources and record of the past	Department of Earth Sciences of Sapienza University, Rome, Italy	September 2019	International (Abroad)	**Vikas Kumar Das**, Susanta Chaudhuri, Koustuv Debnath.
3.	Scouring and Downstream Bed Deformation due to Obstruction of Stream Flow - an Experimental Study with Fine-grained Non-cohesive Sediment Bed.	34th IAS Meeting of Sedimentology - International Conference on Sedimentology to face societal challenges on risk, resources and record of the past.	Department of Earth Sciences of Sapienza University, Rome, Italy	September 2019	International (Abroad)	Susanta Chaudhuri, **Vikas Kumar Das**, Koustuv Debnath.
4.	Erosion Mechanisms and Modification of Morphological Pattern of Meandering River Bank - A Case Study at the Middle Flow Regime of the Hooghly River near Nawadip, West Bengal, India.	Hydro 2019 International Hydraulics, Water Resources and Coastal Engineering	Osmania University, Hyderabad.	December 2019	International (within India)	**Vikas Kumar Das**, Susanta Chaudhuri, Koustuv Debnath.
5.	Comparison of Scour Mechanisms and Downstream Bed Modification around Circular Pier for Different Streaam Bed Characteristics –	Hydro 2019 International Hydraulics, Water Resources and Coastal Engineering	Osmania University, Hyderabad.	December 2019	International (within India)	Susanta Chaudhuri, **Vikas Kumar Das**, Koustuv Debnath.

6.	Hydro Geochemistry and an Overall Appraisal of Ground water Status of Taldangra Block, Bankura District, West Bengal, India	Hydro 2019 International Hydraulics, Water Resources and Coastal Engineering	Osmania University, Hyderabad.	December 2019	International (within India)	Moumita Palmajumder, Susanta Chaudhuri, **Vikas Kumar Das**
7.	Control of Geology and Geo-Morphology on Groundwater Scenario of Indpur Block, Bankura District, West Bengal, India- A Premonsoon Appraisal."	Hydro 2019 International Hydraulics, Water Resources and Coastal Engineering	Osmania University, Hyderabad.	December 2019	International (within India)	Lipi Tuti, Moumita Palmajumder, Susanta Chaudhuri, **Vikas Kumar Das**
8.	Study on Erosion and Undercut of Cohesive River Bank- an Experimental Approach	Hydro 2018 International Hydraulics, Water Resources and Coastal Engineering	NIT, Patna	December 2018	International (within India)	**Vikas Kumar Das**, Susanta Chaudhuri, Koustuv Debnath.
9.	Study on Bridge Pier Scour and Downstream Siltation- An Experimental Approach	25th State Science & Technology Congress, Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal	Science City	March 2018	State	**Vikas Kumar Das**, Susanta Chaudhuri, Koustuv Debnath.
10.	Study on Bridge Pier Scour and Downstream Siltation- An Experimental Approach	2nd Regional Science & Technology Congress, Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal	Kalayani University	December 2017	University	**Vikas Kumar Das**, Susanta Chaudhuri, Koustuv Debnath.

Academic Distinctions (Award/Scholarship/Rank, etc.)
Received the Best paper award in 24th Hydro 2019- International Conference, organized by the Department of Civil Engineering, University college of Engineering, Osmania University, Hyderabad, India in association with the Indian
Received the outstanding paper award in *25th State Science & Technology Congress, Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal*, March 2018
Received the outstanding paper award in *2nd Regional Science & Technology Congress, Department of Higher Education, Science & Technology and Biotechnology, Government of West Bengal*, December 2017

Professional Experience:

- **Details of Post-/Doctoral research/teaching experience:**

Affiliation	Designation	Duration	Nature of Work/Project
Department of Civil Engineering, Indian Institute of Technology Bombay.	Post-Doctoral Researcher	2 year	A Fractal Approach to Cohesive Sediment Erosion and its Effect on Riverbank Migration

Teaching Experiences

During my research days (December 2016 – March 2020) I was frequently assigned to take the undergraduate and post graduate classes (as a teaching assistant) related to the subject as follows:

- Engineering geology practical class – BE Civil Engineering - 2nd Year, 2nd semester.
- Geohydrology practical class – B.Sc. Geological Sciences – UG – 3rd Year, Final semester
- Earth & Climate practical class – B.Sc. Geological Sciences – UG – 3rd Year, Final semester

Competence in Computer Application:

- C
- Corel Draw
- ERDAS
- Grapher
- HTML coding (web page designing)
- Java (Blue J)
- Matlab
- Microsoft office
- Photoshop
- Surfer
- TNT Mips
- Voxler
- Win ADV

Additional information:

ACADEMIC ACHIEVEMENTS/INVOLVEMENTS

- Summer training in various Laboratory Facilities in Geosciences Research at G.S.I, Kolkata and handled the instruments like: SEM-EDX; RAMAN SPECTROSCOPY; EPMA; WD-XRF; RADIOCARBON DATING; FLUID INCLUSION MICRO THERMOMETRY etc.
- Worked as a trainee researcher in a research project entitled "*Study on Local Scour around Bridge Pier within Silt – an Experimental Approach*" under the supervision of Dr. Susanta Chaudhuri of the Department of Geological Sciences, Jadavpur University.
- Worked as a Junior Research Fellow in a SERB, DST research project entitled, *"River bank erosion: influence of tidal flow and vegetative cover"* for a duration of two years under the supervision of Dr. Koustuv Debnath of the Aerospace engineering and Applied Mechanics, Indian Institute of Engineering Science and Technology, Shibpur.
- Worked as a Senior Research Fellow in a SERB, DST research project entitled, *"River bank erosion: influence of tidal flow and vegetative cover"* for a duration of one years under the supervision of Dr. Koustuv Debnath of the Aerospace engineering and Applied Mechanics, Indian Institute of Engineering Science and Technology, Shibpur.

Declaration:
I hereby declare that all the entries are made by me in this curriculum vitae are true to the best of my knowledge and belief.    Date: 22-04-2022 Signature