

CURRICULUM VITAE



DR. SHASANKA KUMAR GAYEN

M.SC. (CAL). Ph.D. (CAL)

**PROFESSOR & HEAD
DEPARTMENT OF GEOGRAPHY**

COOCH BEHAR PANCHANAN BARMA UNIVERSITY

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NEWTOWN-700156, KOLKATA**

ACADEMIC QUALIFICATION AND OTHERS:

B.SC. (HONS.), (1999), C.U

SPECIALIZATION: Fluvial Geomorphology

M.SC. (2001), C.U

SPECIALIZATION: Fluvial Geomorphology and Applied Geomorphology

PH.D. IN GEOMORPHOLOGY AND APPLIED GEOMORPHOLOGY (2012), C.U

TOPIC OF RESEARCH: Geomorphology of the Torsa Basin, West Bengal, with Special Reference to Land and Water use.

NET/SLET: 2002 (UGC)

INTEREST OF RESEARCH: Fluvial & Glaciers related research

A. PROFESSIONAL EXPERIENCES:

TOTAL TEACHING EXPERIENCES: 25 YEARS

- Professor of Geography, Cooch Behar Panchanan Barma University.
- Former Associate Professor of Geography, Cooch Behar Panchanan Barma University, Cooch Behar.
- Former Assistant Professor of Geography, Gokhale Memorial Girls' College, Kolkata.
- Former Assistant Professor & H.O.D, Dept.of Geography, Cooch Behar College, Cooch Behar.
- Former Co-Ordinator of Geography, Cooch Behar Panchanan Barma University, Cooch Behar.
- Former Guest Lecturer of Geography, Krishnagar Govt. College (PG) Krishnagar, Nadia.
- Former Guest Lecturer of Geography, LalBaba College, Belurmath, Howrah.
- Former Guest Lecturer of Geography, Surendranath College, Kolkata.

B. PREVIOUS ADMINISTRATIVE & ACADEMIC EXPERIENCES:

- Former Controller of Examinations (Offg.), Cooch Behar Panchanan Barma University, Cooch Behar (29. 09. 16 to 28. 03. 2017)
- Former H.O.D, Dept. of Geography, Cooch Behar Panchanan Barma University, Cooch Behar (Since July 2013 to 2016 & Sept. 2018 to Sept. 2020)
- Former Chairman, UG Board of Studies, Cooch Behar Panchanan Barma University, Cooch Behar (Since July, 2013 to Sept. 2016 & Sept. 2018 to Sept. 2020).
- Former Chairman, PG Board of Studies, Cooch Behar Panchanan Barma University, Cooch Behar (Since July, 2013 in Sept. 2016 & Sept. 2018 to Sept. 2020)
- Former Chairman, Board of Research, Dept. of Geography, Cooch Behar Panchanan Barma University, Cooch Behar (Sept. 2018 to Sept.2020)
- Former Public Information Officer (P.I. O), Cooch Behar Panchanan Barma University, Cooch Behar (2017 to 2021)

- Former Court Member, Cooch Behar Panchanan Barma University, Cooch Behar (Sept. 2018 to Sept.2020)
- Former Member, UG Board of Studies, North Bengal University, Darjeeling (Since 2012 to 2016)
- Former Member, Governing Body, Thakur Panchanan Mahila Mahavidyalaya (TPMM) Cooch Behar (Since 2012 to 2019)
- Former member, Governing Body, Cooch Behar College, Cooch Behar.
- Former Secretary, Teachers' Council, Cooch Behar College, Cooch Behar (Since 2005 to 2011)
- Former Member, PG Board of Studies, Sidho-Kanho-Birsha University (SKBU), Purulia.

C. PRESENT HOLDING THE POSTS OF ADMINISTRATIVE AND ACADEMIC AT CBPBU:

- Chairman, UG Board of Studies, Dept. of Geography, CBPBU
- Chairman, PG Board of Studies, Dept. of Geography, CBPBU
- Chairman, Board of Research Studies, Dept. of Geography, CBPBU
- At present, Member of the Central Board of Research Studies, CBPBU
- At present, Member of interdisciplinary Board of Research Studies, Dept. of Political Science, CBPBU
- At present, Member of the University Sports Board, CBPBU
- At present, Member of the University N.S.S. Advisory Board, CBPBU
- At present, Member of the University disciplinary committee, CBPBU, etc.
- At present, member of the NAAC Steering Committee, CBPBU
- At present, member of the PG Board of Studies, Dept. of Geography, Kanyashree University, Nadia.
- At present, member of PG Board of Studies, Dept. of Geography, Raiganj University, Uttar

Dinajpur.

- At present, member of the PG Board of Studies, Dept. of Geography, The University of Burdwan.
- At present, member of the UG Board of Studies, Dept. of Geography, The University of Burdwan

D. LIFE FELLOW OF THE FOLLOWING LEARNED SOCIETIES:

- Geographical Society of India, University of Calcutta, Kolkata.
- Institute of Landscape, Ecology & Ekistics (ILEE), Kolkata.
- Union Geographic Information Technologists (UGIT), Bangalore University, Bangalore.
- North-East India Geographical Society (NEIGS), Gauhati University, Gauhati.
- Institute of Indian Geographers (IIG), Pune University, Pune.
- Indian Journal of Spatial Science (IJSS)
- Bangiyo Bhugol Mancha, Kolkata.

E. MEMBER OF EDITORIAL/ ADVISORY BOARDS:

- Reviewer of Modeling Earth System and Environment, Springer Nature.
- Reviewer Taylor & Francis Group.
- Reviewer of MDPI Journal in Social Science.
- Joint Editor(s) Indian Society of Spatial Science.
[Url:https://www.indiansss.org](https://www.indiansss.org)
- Section Editor for RST, Academic Publishing Pte. Ltd., Singapore.
- Reviewer of International Journal of Geo-information (IJGI, 2220-9964, Impact Factor 3.4)
- Reviewer of the Indian Journal of Landscape Systems and Ecological Studies.

- Reviewer of the Indian Journal of Spatial Science (IJSS)

F. RESEARCH SUPERVISION:

- Total no. of PhDs awarded: (05)
- Total no. of PhDs Submitted: NIL
- At present (08) Registered Research Scholars are doing their research works in various fields of Physical Geography under my supervision.

G. OTHERS ACADEMIC ACTIVITIES:

- Act as an External Expert or Adjudicator of evaluating Ph.D. Thesis of various universities more than (30).
- Act as an External Expert of M. Phil. Dissertation of various universities approx. (20)
- Act as a Convener of introducing the CBCS system at UG level, CBPBU.
- Act as an External Examiner, Guwahati University, Assam.
- Act as an External Examiner, Uttarakhand University, Dehradun.
- Act as an External Expert, Ravenshaw University, Cuttack, Odisha.
- Act as an External, Sikkim Central University, Sikkim.
- Act as an External Expert of Bodoland University, Assam.
- Act as an External Examiner, Vidyasagar University, WB.
- Act as an External Examiner, The University of Burdwan, W.B.
- Act as an External Examiner, Kalyani University, Kalyani, W.B.
- Act as an External Examiner, University of Gour Banga, Malda.
- Act as an External Examiner, Raiganj University, Uttar Dinajpur.
- Act as an External Examiner, Diamond Harbour Women's University, W.B.

- Act as an External Examiner, University of North Bengal, W.B
- Act as a Paper Setter and External Examiner, Visva-Bharati University, Santiniketan.
- Act as a Paper Setter and External Examiner Sidho- Kanho- Birsha University (SKBU), Purulia.
- Act as a Paper Setter and External Examiner Rabindra Bharati University.
- Act as an External Expert of Kanyashree University, Krishnagar, Nadia
- Act as an External Expert of Sadhu Ramchand Murmu University, Jhargram.
- Act as a Paper Setter and External Examiner of Panskura Banamali College (PG), Medinipur.
- Act as an External Examiner Vivekananda College (PG), Kolkata.
- Act as a Subject Expert on the Selection Board of Central School Service Commission.
(Since 2007 to till date)
- Act as a Chairman's nominee on the Selection Board of Central School Service Commission.
- Act as a Subject Expert for the recruitment of the Guest teachers / Lecturers in various colleges more than (30) times.
- Act as an Observer of several times of West Bengal College Service commission (WBCSC).
- Act as a Roving Observer of WBJEE, Etc.

H. RECEIVED AWARDS:

- Research Excellence Award, 2026 offered by the Indian Academic Researchers' Association.

I. PAPERS PRESENTED IN CONFERENCES, SEMINARS, ETC.

INTERNATIONAL SEMINARS :(24)

SL. NO.	YEAR	VENUE	TOPIC OF SEMINAR	NAME OF THE CONTRIBUTION OF PAPERS/POSTER
1.	29 th Dec.2000-1 st Jan. 2001	CU	Changing Environmental scenario of India and Adjacent countries since Independence	Arsenic contaminations in west Bengal
2.	11 th -13 th Jan'. 2007	CU	Poverty of SE Asia	Problems of Economic Development of Torsa Basin
3.	24 th -25 th Dec. 2011	KU	Global Environmental issues: Changes to industry, Ecology, and Society.	Contamination of water of wetlands as an emerging issue of Global Environmental problems.
4.	10 th -12 th March, 2012	C.U	Dimensions of Development and resource conservation	Possibilities of Eco-Tourism Development of Cooch Behar District
5.	19 th - 20 th Dec. 2014	CU	Environmental Perspective and Resource Management	Effects of Climate Changing on Ecosystem and Biodiversity-A case Study of Cooch Behar District
6.	25 th -26 th March 2015	Maynaguri college	Planet Earth and its Preservation	Environmental Management and its influence on our society
7.	27 th -28 th March 2015	Alipurduar College	Modern Trends in Social and Basic Sciences (MTSBS- 2015)	Environmental Change and its effect on Biodiversity and Mangrove vegetation-A case study of Sunderban Region
8.	9 th -11 th Nov.2017	Bangalore University	Climate change and Sustainable Water Resource Management- Innovative Geospatial Solutions	Why Rain Water Harvesting is indispensable for water resource Management?
9.	18 th Nov. 2017	Burdwan University	System Dynamics, Human- Nature Interaction & Societal Discourse	Gender wise Human Trafficking from South-East Asia to other Countries in 21 st Century and its Influences.
10.	24 th Nov. 2017	Bangladesh National Geographical Association (BNGA), Bangladesh	Water Issues and Sustainable Development	Without proper utilization of water resources in our daily life in future its crisis must be shown for our future generation.
11.	8th-10th Feb.2018	International Geographical Union (IGU), Guwahati	Environment and Sustainable Livelihood	Analysis of Drought using Standard Precipitation Index-A case study of Puruliya District, West Bengal.
12.	21st & 22nd March, 2018	4th International seminar Dept. of Geography GBU	"Population, Urbanization and Environment: Contemporary Issues and Challenges"	Impacts on Livelihood pattern Driven by Climatic Stress in Western Region of West Bengal

13.	24th & 25th Nov.2018	7th International conference Dept. of Geography Peradeniya University, Sri Lanka	Climate Change, Disaster Risk Reduction and Sustainable Development Through Geospatial Technologies	Climate Change and Forest Fire Using Geospatial Techniques: A case Study of Sikkim
14.	9th Jan to 11 th Jan. 2020	International Conference, CBPBU	Cognitive Science, Language & Reality	Analysis of Channel bank shifting with the help of Remote Sensing and GIS technique: A study on the Dharla River in Cooch Behar District.
15.	9th Jan. to 11 th Jan.2020	International Conference, CBPBU	Cognitive Science, Language & Reality	A new multicriteria based tourism potentiality index in reveal of tourism potentiality: A case study on Bankura District, West Bengal, India
16.	3 rd & 4 th March,2020	International Seminar, Department of Geography, Lady Brabourne College & DHE, Govt. of W.B	Sustainable Development & Inclusive Growth Method to Methodology	Seasonal Livelihood of climbing Sherpas in Uttarey of Western Sikkim Himalayas.
17.	11 th & 12 th Nov.2022	International Seminar, Department of Geography, CBPBU & Foundation of Practicing Geographers, Kolkata	Essence of Geography: What, Where & How	Delineation of Groundwater Potential Zones of Raidakh River Basin, India, Using AHP and GIS Techniques.
18.	1 st & 2 nd Sept.,2023	International Seminar Dept. of Geography, Rampurhat College, Birbhum, West Bengal	Recent Advancement in Geographical Studies A Multidimensional Outlook	Use of Karnataka Model of Cloud Seeding as a Drought Management Technique: A Case Study of Bankura and Purulia Districts, West Bengal.
19.	25 th -28 th Jan., 2024	International Conference Dept. of Geography and Applied Geography, NBU	Emerging Issues in Environment, Livelihood and Development: A future Road Map towards Sustainable Earth	Climate Change and its Effects on Glacier Melting: A Case Study of South Lhonak Lake Burst, North Sikkim
20.	19 th to 21 st Dec. 2024	45 th Indian Geographers' Meet & International Conference Dept. of Geography North-Eastern Hill University, Shillong, Meghalaya.	Mapping the Future: Geography for a Better World	Mapping of Channel Migration Zones of Gadadhar River of West Bengal, Using RS and GIS Techniques.

21.	3 RD & 4 TH Nov.,2025	ICSSR-ERC Sponsored International Conference Dept. of Geography Dhuppuri Girls' College	Disaster and its Afterlife: A Multidisciplinary Response Environmental Crisis from North Bengal and North-East India	Devastating Cloudburst and Heavy Rainfall..Meteorological & Environmental Hazards
22.	30 th , 31 st Jan. & 1 st Feb,2026	IGU International Conference Dept. of Geography The University of Burdwan, BU	Ecosystem Restoration, Disaster Risk Reduction and Resilient Society in Changing Climate	Climate Change & Bio-Diversity Issues
23.	19 th -21 st Feb. 2026	International Seminar of Institute of Indian Geographers (IIG) Dept. of Geography & Applied Geography, NBU	Geography in the 21 st Century: Navigating Trends, Tackling Challenges	Rainwater harvesting is indispensable for Purulia & Bankura District
24.	28 th Feb. to 2 nd March,2026	International Conference, Ganga Rampur College, Dakshin Dinajpur & Bangiyu Bhugol Manch	Wetland, Society and Sustainability	Ecological Crisis in the "City of Beauty": A Study on the Shrinking Wetlands and Habitat Loss in Cooch Behar District

NATIONAL & STATE LEVEL SEMINARS: (37)

SL. NO.	YEAR	ORGANIZER AND VENUE	TITLE OF THE CONFERENCE/ SEMINARS	TITLE OF THE PAPERS PRESENTED
1.	23 rd Oct. - 25 th Oct. 2002	HNB Garhwal University, Uttaranchal	Central Himalaya Environment and Development	Landforms and Land use in upper part of Upper Ganga Basin
2.	Dec. 13 th & 14 th , 2002	CU	Land AND Water Management in India	Landforms and Land use map of upper Ganga Basin.
3.	20 th - 22 nd Jan, 2003	University of Rajasthan, Jaipur	15 th IGI Conference in Geomorphology	Natural Hazards in the Multicyclic Western Himalayan Terrain, Uttaranchal.
4.	16 th & 17 th Apl.2014	Krishnagar Govt. College, Nadia	Disaster and its Management: Perspective and future Approaches	Flood Disaster Management in Malda District
5.	11 th & 12 th Dec., 2004	Cooch Behar College	Economy and Society of North Bengal: The changing Scenario.	Influence of Flood and other problems on Socio-Economic Development of Torsa Basin.
6.	27 th & 28 th Mar., 2005	ILEE & IBRAD, CU	Catchment Management & Sustainable Development	Water Resource Management of Torsa Catchment Area.

7.	25 th & 26 th Mar., 2006	ILEE & IBRAD, CU	Research Methods & Techniques for sustainable Development in India	Research Design or Sustainable Development of the lower Torsa Basin, Cooch Behar
8.	11 th & 12 th Jul., 2007	Maynaguri College	The Nature & Trends of Internal and International Migration of West Bengal	Internal and External Migration Scenario in Cooch Behar District
9.	28 th Mar., 2008	Saheed Kshudiram College	'Environmental problems and our Future: Issues and Challenges'	Impact of Fly Ash of Thermal Power plant on Environment & Biodiversity as an Emergent Issue
10.	13 th & 14 th Feb. 2010	Alipurduar College, Jalpaiguri	'Issues on Physical and Social Environmental Change'	Coastal Belt Water pollution at Vishakhapatnam City, Andhra Pradesh an Emerging Issue.
11.	25 th & 26 th . November, 2011.	BRSN College, Kolkata.	Changing environmental scenario of Indian sub - continent: A geographical appraisal	Chitmahals are the emerging issues to geopolitics at the cross border of India Bangladesh in Cooch Behar district.
12.	8 th & 9 th Sept., 2012	Gour Mahavidyalaya, Malda	Issues on Rural livelihood in India	Changing trends of agriculture in Cooch Behar district in last Decades.
13.	8 th & 9 th Feb., 2013	Maynaguri College	Women Empowerment in the New Millennium- Where India Stands	Empowerment of our Indian Women
14.	4 th & 5 th Mar., 2013	Lal Baba College, Kolkata.	Environment, Resource, and development	Climatic Changes and its overwhelming influences last decade of Cooch Behar District.
15.	1 st & 2 nd April, 2013	Cooch Behar College, COB	Relevance of Swami Vivekananda in the present Social and Economic Scenario	Influence of Swami Vivekananda on Young Generation
16.	1 st Nov. 2013	Cooch Behar Panchanan Barma University, COB	World Philosophy Day	Organizer
17.	6 th & 7 th Mar. 2014	University of North Bengal	Land, People and Society	Soil degradation is a serious threat for agricultural sustainability in the Himalayan Region.
18.	28 th & 29 th March, 2014	NSOU	Understanding Hazards and Their Mitigation Options	Effect of Earthquake Hazards in Cooch Behar District
19.	11 th & 12 th Sept., 2014	Birpara College	Population, Urbanization and Changing State of Environment	Why Application of Remote Sensing is Necessary in Geographical Study?
20.	24 th Nov. 2014	CBPBU	Truth and Knowledge: "An East- West Perspective"	Organizer

21.	11 th &12 th Dec. and 22 nd & 23 rd , Dec.2014	Presidency University, Kolkata	Seminar Series on Remote Sensing	Delegate
22.	20 th & 21 st March, 2015	Sitalkuchi College, CoB	Theory and Practice of Human Rights: The Indian Context	Human Trafficking and its influences on Cross Border migration to West Bengal from Bangladesh, Nepal, Bhutan and Neighboring Countries.
23.	30 th March 2015	TPM, COB	Higher Education in North Bengal	Present Scenario of Higher Education in North Bengal
24.	12 th & 13 th Aug, 2016	Birpara College, Jaipauri	Human Interventions: Present and Future State of Environment	Slum Dwellers' Assessment on Cooch Behar Municipality-An Environmental Appraisal
25.	25 th & 26 th Aug, 2016	Cooch Behar College	Environmental Degradation and Disasters-A Vision plan for sustainable Development	Hazards prone Cooch Behar District- A Self appraisal Report on this District
26.	16 th & 17 th Nov. 2016	Alipurduar College, Jaipauri	Environment, Ecology and Humans	Generation of Solid Waste Materials and its Management at Cooch Behar Municipality
27.	7 th & 8 th Feb. 2017	Bakshirhat College, COB	Changing Demographic Scenarios in Colonial & Post Colonial North Bengal	The comparative Analysis of Demographic Changes of Cooch Behar District with respect to West Bengal
28.	30 th & 31 st March.2017	Bakshirhat College, COB	Changing Environment, Natural Disaster in North Bengal-North East India	Effects of Urbanization on Flora and Fauna of Cooch Behar District
29.	30 th Aug., 2017	Rajbanshi Bhasa Academy, COB	Rajbanshi, Bangla Ebong Asomia Bhasar Tulanamulak Alochana	Delegate
30.	26 th -28 th Dec.2017	Ravenshaw University, Cuttack, Odisha	Population, Environment & Sustainable Development	Why Conservation of Wetlands are Mandatory? A vivid example and case study of Cooch Behar District, West Bengal.
31.	26 th & 27 th Feb.2018	A. B .N. Seal College, Cooch Behar	Approaches to Environment: Society, Culture, Polity and Economy	Why North East India is Earthquake prone? A case study of Cooch Behar District and its future vulnerability.
32.	17 th & 18 th May.2018	International Benevolent Research Foundation, Kolkata	Contemporary Research Perspectives in Geography	Prediction of Drought using Winexpo Indices: An example from Puruliya District, West Bengal
33.	17 th & 18 th Jan. 2023	Dept. of Science and Technology & Biotechnology, Govt. of West Bengal and CBPBU	The 5 th Regional Science Congress	Hybrid Model for Flood Susceptibility Assessment in Sub-Watershed of Teesta (Sikkim & West Bengal)

34.	1 st & 2 nd July, 2023	Dept. of Geography and Applied Geography, NBU	Urbanization, Urban Environment and Sustainability in Himalayan and Sub-Himalayan region	Assessment of Geo-tourism sites using Geo-diversity & Tourism potential mapping in Kalimpong District
35.	8 th & 9 th Feb., 2024	Dept. of Library Science, CBPBU & National Digital Library of India, IIT Kharagpur	User Awareness on NDLI and NDLI Club with a Special Focus to Sustainable Development in Education	Act as an Organizer and Executive Committee Member
36.	15 th & 16 th March, 2024	Dept. of Geography, Dinhat College, Cooch Behar	Sustainable Development and Environment-A way of Self Sufficiency	Tourism suitability Assessment in Malbazar Block using Principal Component Analysis and Analytical Hierarchy Process.
37.	22 nd & 23 rd Feb, 2025	Dept. of Geography University of Calcutta Kolkata	"21 st Century Environmental Challenges- Climate, River & Wetlands"	River Crisis of North Bengal and its Remedial Measures

J. ORGANIZED SEMINARS, WORKSHOPS :

- International Seminars : 03
- National Seminars : 05
- Workshops : 03

J. CHAIRING THE SESSIONS FOR NATIONAL / INTERNATIONAL SEMINARS: (31)

SL. NO	YEAR	VENUE	TOPIC OF SEMINAR	ACT AS	SEMINAR TYPES
1.	23 rd & 24 th March, 2013	Alipurduar College	Rural Development: Challenges & Opportunities	Chairperson	National
2.	19 th -20 th Dec.2014	CU	Environmental Perspective and Resource Management	Chairperson	International
3.	19 th -20 th Dec.2014	CU	Environmental Perspective and Resource Management	Rapporteur	International
4.	6 th -7 th Mar.2014	NBU	Land, People and Society	Rapporteur	National
5.	25 th & 26 th Aug, 2016	Cooch Behar College	Environmental Degradation and Disasters-A Vision plan for sustainable Development	Co-Chairperson	National
6.	26 th -28 th Dec.2017	Ravenshaw University, Cuttack	Population, Environment & Sustainable Development	Chairperson	National
7.	8 th -10 th Feb.2018	IGU, Gauhati University	Environment and Sustainable Livelihood	Chairperson	International

8.	23 rd Feb.2018	Indian Chamber of Commerce, CoB	Disaster Management in different Zones of West Bengal	Main Speaker	State level
9.	21 st & 22 nd March, 2018	4 th International seminar Dept. of Geography, GBU	“Population, Urbanization and Environment: Contemporary Issues and Challenges”	Chairperson	International
10.	21 st & 22 nd March, 2018	4 th International seminar Dept. of Geography, GBU	“Population, Urbanization and Environment: Contemporary Issues and Challenges”	Co- Chairperson	International
11.	9 th Jan to 11 th Jan, 2020	International Conference, CBPBU	Cognitive Science, Language & Reality	Chairperson	International
12..	10 th Sept & 11 th Sept .2020	Diamond Harbour Women's University	“Innovation in Disaster Risk Reduction: Eyeing Towards A Resilient Society”	Co-Chairperson	International
13.	19 th Dec. 2020	Gazole Mahavidyalaya, Malda	“Contemporary Environmental Issues and Challenges from Multidisciplinary Standpoint: Suitable Development at the Crossroads”	Chairperson	International
14.	11 th & 12 th Nov.2022	International Seminar, Department of Geography, CBPBU & Foundation of Practicing Geographers, Kolkata	Essence of Geography: What, Where & How	Chairperson & Organizing Secretary	International
15.	11 th & 12 th Jan. 2023	Dept. of Science and Technology & Biotechnology, Govt. of West Bengal and UGB	5th Regional Science Congress	Judge & Panelist	National
16.	27 th & 28 th Jan. 2023	Foundation of Practicing Geographers, Kolkata	Decoding Geography	Chairperson	International
17.	1 st & 2 nd July, 2023	Dept. of Geography and Applied Geography, NBU	Urbanization, Urban Environment and Sustainability in Himalayan and Sub-Himalayan region	Chairperson	National
18.	1 st & 2 nd Sept.,2023	International Seminar Dept. of Geography, Rampurhat College, Birbhum, West Bengal	Recent Advancement in Geographical Studies A Multidimensional Outlook	Chairperson	International
19.	6 th Jan. 2024	One Day National Level Seminar, NNS, CBPBU	YUVA SAMVAD: INDIA @ 2047	JUDGE & Speaker	National
20.	25 th -28 th Jan., 2024	International Conference Dept. of Geography and Applied Geography, NBU	Emerging Issues in Environment, Livelihood and Development: A future Road Map towards Sustainable Earth	Chairperson	International
21.	27 th & 28 th Sept. 2024	International Seminar Foundation of Practicing Geographers S.N. Bose National Centre for Basic Sciences, Saltlake,	Urban India: Problems and Prospects	Invited Guest Speaker	International

		Kolkata			
22.	29 th & 30 th Nov. 2024	International Seminar Dept. of Geography, Rampurhat College, Birbhum, West Bengal	Innovative Approaches in Geographical Research (IAGR)	Chairperson	International
23.	19 th to 21 st Dec. 2024	45 th Indian Geographers' Meet & International Conference Dept. of Geography North Eastern Hill University Shillong, Meghalaya	Mapping the Future: Geography for a Better World	Chairperson	International
24.	7 th & 8 th Jan. 2025	Malda College With collaboration of Dept. of Science and Technology & Biotechnology, Govt. of West Bengal	7th Regional Science Congress	Judge & Panelist	National
25.	10 th & 11 th Jan. 2025	Rampurhat College With collaboration of Dept. of Science and Technology & Biotechnology, Govt. of West Bengal	7th Regional Science Congress	Judge & Panelist	National
26.	14 th & 15 th May, 2025	Dept. of Geography Vidyasagar College Kolkata	'Climate Extremes and Sustainability'	Resource Person	International
27.	3 rd & 4 th NOV.,2025	ICSSR-ERC Sponsored International Conference Dept. of Geography Dhugguri Girls' College	Disaster and its Afterlife: A Multidisciplinary Response Environmental Crisis from North Bengal and North-East India	Moderator	International
28.	30 th , 31 st Jan. & 1 st Feb,2026	IGU International Conference Dept. of Geography The University of Burdwan, BU	Ecosystem Restoration, Disaster Risk Reduction and Resilient Society in Changing Climate	Chairperson	International
29.	International	International Seminar of Institute of Indian Geographers (IIG) Dept. of Geography & Applied Geography, NBU	Geography in the 21 st Century: Navigating Trends, Tackling Challenges	Chairperson	International
30.	19 th -21 st Feb. 2026	International Seminar of Institute of Indian Geographers (IIG) Dept. of Geography & Applied Geography, NBU	Geography in the 21 st Century: Navigating Trends, Tackling Challenges	Judge	International
31.	28 th Feb. to 2 nd March,2026	International Conference, Ganga Rampur College, Dakshin Dinajpur & Bangiyo Bhugol Manch	Wetland, Society and Sustainability	Chairperson	International

K. NATIONAL/STATE LEVEL INVITED LECTURES: (49)

SL. NO	DATE & VENUE	ORGANIZED BY	TOPICS	ACT AS
1.	10.10.2006	Office of the District Magistrate, Govt. of West Bengal, Cooch Behar	Observance of National Day for Disaster Reduction, 2006, COB	Resource Person & Speaker
2.	14.04.2013	Bangiyo Bhugol Manch, Cooch Behar	Energy Conservation and Pollution Control	Resource Person & Speaker
3.	05.05.2016	West Bengal State University, NSS, Barasat	Youth Motivation	Resource Person & Speaker
4.	26.11.2016	Dept. of Geography Sitalkuchi College, COB	Morphometric Techniques and its Application	Resource Person & Speaker
5.	20.02.2017	West Bengal State Council for Higher Education (WBSCHE)	Co-Ordination of Under and Post Graduate Syllabus	Speaker, as a Controller of Exams., CBPBU
6.	16.02.2018	Indian Chamber of Commerce and Department Disaster Management, Govt. of West Bengal, CoB	Flash Flood	Resource Person & Speaker
7.	29.03.2018	Dept. of Geography & Defence Studies, Behala College, Kolkata	Altitudinal Hazards at Mountain Region and its Effect on Defence.....	Resource Person & Speaker
8.	20.12.2019	DST Programme, Govt. of West Bengal. CoB College, Cooch Behar	Water Crisis in India and its mitigation	Resource Person & Speaker
9.	30 th & 31 st Aug. 2020	Dept. of Geography RKSMV & Shymaprasad College Kolkata	Research Methodology & Field Work	Resource Person & Speaker
10.	22 nd Sept. 2020	Dept. of Geography TDHCKJ College Kolkata	Contemporary Issues and Challenges from Geographers' Perspective	Resource Person & Speaker
11.	22 nd March, 2021	Dept. of Geography Dinhata College Cooch Behar	"World Water Day" Rivers in Crisis	Resource Person & Speaker
12.	26 th April, 2021	Dept. of Geography Diamond Harbour Women's University Diamond Harbour, South 24 Pgs (Sourh)	Application of Research Methodology in the Field of Geographical Research	Resource Person & Speaker
13.	3 rd July, 2021	Dept. of Geography, Cooch Behar College, Cooch Behar	Major Contemporary Issues and its Recent Trends in Geographical Studies	Resource Person & Speaker
14.	20 th Dec. 2021	Dept. of Geography, Hiralal Mazumdar Memorial College for Women, Kolkata	Data and Techniques of Hazard Mapping	Resource Person & Speaker
15.	11 th May, 2022	Dept. of Political Science, Cooch Behar College, Cooch Behar	Climate Change	Resource Person & Speaker

16.	6 th & 7 th Dec.2022	Dept. of Geography, Sadhu Ram Chand Murmu University of Jhargram (SRCM), Jhargram	Lecture Series on Contemporary Issues, Anthropogeomorphology, and GIS	Resource Person & Speaker
17.	8 th Dec. 2022	Dept. of Geography, Ananda Mohan College Kolkata	Without Proper Utilization of Water Resource in our daily life, in future its crisis must be shown for our future Generation	Resource Person & Speaker
18.	9 th Dec.2022	Dept. of Geography Sudhiranjan Lahiri Mahavidyalaya, Majdia, Nadia	Human Trafficking and It's Influences on Cross Border Migration to West Bengal from Bangladesh, Nepal, Bhutan and Neighboring Countries.	Resource Person & Speaker
19.	10 th to 14 th April, 2023	Dept. of Geography Dhugguri Girls' College Dhugguri, Jalpaiguri	Workshop on How to use QGIS	Resource Person
20.	27 th April, 2023	Dept. of Geography Cooch Behar College, Cooch Behar	Topographical Maps and its Geographical Representations	Resource Person & Speaker
21.	3 rd May,2023	Dept. of Geography Kanyashree University, Nadia	Application of Research Methodology in Geographical Research	Resource Person & Speaker
22.	25 th July to 27 th July,2023	Purbasha Eco-help line Society & Others organizations (UNSCO) Satjelia chargheri, Sundarbans	Observance of World Mangrove Day	Resource Person & Speaker
23.	24 th Sept.,2023	Mc William School Auditorium, Alipurduar	Observance of World River Day	Resource Person
24.	25 th Sept.-2 nd Oct., 2023	Dept. of Geography Dinhata College, Cooch Behar	7 Days National Workshop on Q GIS & Computer application in Geography	Resource Person & Speaker
25.	28 th Nov., 2023	Dept. of Geography Krishnagar Women's College Nadia	Special Lecture on Concept of Research Methodology	Speaker
26.	15 th & 16 th Jan., 2024	Dept. of Geography, Jalpaiguri A.C. College with collaboration of DST Govt. of West Bengal.	6 th Regional Science Congress	Speaker
27.	15 th & 16 th March,2024	Dept. of Geography, Dinhata College, Cooch Behar	Two-day National Level Seminar on Sustainable Development and Environment-A way of Self Sufficiency	Resource Person/ Speaker
28.	13 th to 18 th May, 2024 A Week-long Workshop	Dept. of Geography Cooch Behar College, Cooch Behar	A 6-day National Level Workshop On Geoinformatics & Use of AI Tools for Geographical Research	Special Guest & Speaker

29.	24 th & 25 th May, 2024	Dept. of Geography Sitalkuchi College	A 2-day Workshop on know the Techniques of Minor Instruments: A Training cum Workshop	Resource Person & Speaker
30.	27 th May, 2024	Dept. of Geography A.B.N Seal College Cooch Behar	Prof. S.C. Mukhopadhyay Memorial Lecture	Speaker
31.	9 th June, 2024	Purbasha Eco Helpline Society Aliah University, (Park Circus Campus) Kolkata	State Level Seminar on Sundarbans and Environment	Resource Person
32.	4 th Sept. 2024	Dept. of Geography Bakshirhat College Cooch Behar	Special Lecture on Major Contemporary Issues and its Recent Trends	Speaker
33.	22 nd Sept., 2024	Paschimbanga Bigyan Manch Sadar Govt. School Cooch Behar	Observance of International Rivers' Day	Speaker
34.	29 th & 30 th Nov. 2024	International Seminar Dept. of Geography, Rampurhat College, Birbhum, West Bengal	Innovative Approaches in Geographical Research (IAGR)	Resource Person & Speaker
35.	19 th Jan. 2025	11 th Convention of Paschim Banga Bigyan Mancha, Hamilton Ganj, Kalchini Union Academy.	Three-Annual Conference	Resource Person & Speaker
36.	16 th March, 2025	14 th Convention of Paschim Banga Bigyan Mancha, Cooch Behar District. Maharaja Nripendra Narayan High School.	Bi-Annual Conference	Resource Person
37.	17 th March, 2025	UGC -Malaviya Mission Teacher Training Centre, University of North Bengal.	UGC Short Term Course: (12.03.25 to 20.03.25)	Speaker
38.	26 th March, 2025	Bagnio Bhugol Manch Siksha Sibir, Sahitya Sava, Temple Street, Cooch Behar	One Day workshop on Climate Change and its overwhelming effects on Wetlands and Ecosystem.	Resource Person & Speaker
39.	9 th April, 2025	Bijoy Krishna Girls' College, Howrah	Special Lecture on the "Research Methodology"	Invited Speaker
40.	28 th April, 2025	Dumkal College, Murshidabad	A Burning Issue on Climate Change and its overwhelming Effects on Glacier, Water	Resource Person & Speaker
41.	12 th & 13 th March, 2025	Vidyasagar College, Kolkata	Climate Change and its Overwhelming Effects of Ice Melting on Greenland and its Geopolitical Conflicts	Resource Person & Speaker
42.	15 th June, 2025	Aliah University, Kolkata	Water Security and Global Crisis	Resource Person & Speaker

43.	3 rd & 4 th July, 2025	Gangarampur College, Dakshin Dinajpur	An Introductory Lecture on GIS & Remote Sensing	Resource Person & Speaker
44.	18 th Sept.2025	Dept. of Geography, Serampore Girls' College	Present Prospect of Geography	Chief Guest & Resource Person
45.	7 th & 8 th Jan.,2026	Alipurduar University	River Culture of West Bengal	Resource Person
46.	30 th , 31 st Jan. & 1 st Feb,2026	The University of Burdwan, BU	Impact of unplanned tourism development on the Beas River Ecosystem: A case study of Manali, Himachal Pradesh	Plenary Speaker
47.	3 rd & 4 th Feb. 2026	The University of North Bengal, Darjeeling	Earth Sciences including Geoinformatics & Hydrology	Lead Speaker
48.	30 th March,2026	Barrackpore Rastraguru Surendranath College, Barrackpore	Workshop on Research Methodology	Lead Speaker
49.	13 th April, 2026	Ravenshaw University, Cuttack, Odisha	An Overview of Research Methodology in Geography and its Contemporary Trends	Invited Speaker

L. WORKSHOPS: (13)

SL. NO.	YEAR	ORGANIZER AND VENUE	TOPIC OF WORKSHOPS	ACT AS
1.	9 th -11 th Oct.2004	Nehru Yuva Kendra, COB, Govt. of India	Workshop on Scientific Awareness	Participant
2.	5 th Sept.2006	WBCSCT & A.B.N Seal College.	"Intellectual Property Rights"	Participant
3.	4 th April 2010	Netaji Subhas Open University, Cooch Behar College.	About Distance education	Participant
4.	22 nd and 23 rd Feb.2011	Department of Geography, NBU.	Modern trends in Geography.	Participant.
5.	25 th Mar.2013	Netaji Subhas Open University, Cooch Behar College.	Good Governance of the Study Centres of Netaji Subhas Open University.	Participant
6.	9 th May-13 th May,2016	West Bengal State University, Kolkata	Youth Motivation	Speaker
7.	19 th Sept.2016	Dept. of Geography, Cooch Behar College	Disaster Awareness and Management Programme.	Speaker

8.	3 RD Dec. to 9 th Dec.,2018	Dept. of Geography, CBPBU	Application of SPSS in Geographical Research	Participant & Organizer
9.	26 th Aug. to 1 st Sept. 2019	Dept. of Geography, CBPBU	Research Methods in Geography	Participant & Organizer
10.	26 TH April to 28 th April,2022	Dept. of Geography, CBPBU	Application of STATA and AMOS Software in Geographical Research	Participant & Organizer
11.	25 TH -27 TH July,2023	Purbasha Eco-Helpline, Sundarban	Observance of International Mangrove Day	Speaker
12.	13 Th -18 TH May, 2024	Dept. of Geography, Cooch Behar College	Week -Long Workshop on Application of Geoinformatics in Modern Geospatial Research	Resource person & Speaker
13.	3 RD & 4 TH July, 2025	Dept. of Geography, Ganga Rampur College Dakshin Dinajpur	A Two-Day Workshop on Teachers' Skill Development on H.S Geography Practical New Syllabus	Resource person & Speaker

M.COLLOQUIUM :(01)

SL. NO.	YEAR	ORGANIZER AND VENUE	TOPIC OF CONFERENCE	NAME OF THE CONTRIBUTION OF PAPERS
1.	5 th Mar.2004	Environmental Science & Technology, JU	Role of Atmosphere and Soil in Agriculture.	Participants.

N. TRAINING COURSES :(07)

SL. No.	Venue	Date	Grade
1.	H.M.I Basic course for Mountaineering, Darjeeling	18. 11. 2000-15. 12.2000	A
2..	Refresher Course, Academic Staff College, University of Calcutta	05.09.2007-25.09.2007	A
3.	Orientation Programme, Academic Staff College, Jadavpur University	02.03.2009-31.03.2009	A
4.	Foundation Course in Remote sensing & GIS 21 st CenturyGIS Academy,Kolkata-700026	17. 10. 1013-31. 10.2013	A

5.	Refresher Course, Academic Staff College, University of North Bengal	30.10.2014-19.10.2014	A
6.	Eight-week Certificate course in RS & GIS, West Bengal Dept. of Higher Education, Science and Technology and Biotechnology Geoinformatics and Remote Sensing Cell, Kolkata.	04. 06. 2018-27. 07.2018	A
7.	One Week Advanced Course in Applications of Geospatial Analytics and AI, Organized by Dept. of Higher Education, Science and Technology and Biotechnology Geoinformatics and Remote Sensing Cell, Kolkata.	17 th -21 st Nov.,2025	NA

P. TOTAL PUBLICATIONS: (92)

Q. ACCEPTED BUT PENDING PUBLICATIONS: (10)

LIST OF PUBLICATIONS IN JOURNALS: (66)

- **Sarkar, P., Raha, S., Gope, S., Sarkar, K., Sarkar, A., & Gayen, S. K., (2026).** Flood susceptibility mapping in the Kaljani river basin West Bengal India using machine learning. *Discover Geoscience (2026)*. <https://doi.org/10.1007/s44288-026-00410-y>
- **Sarkar, K., Sarkar, P., Raha, S., Mondal, K., Gayen, S. K., (2025).** Spatial distribution and susceptibility mapping of landslides in the Rudraprayag to Badrinath Region, North Western Himalayas, *Arabian Journal of Geosciences*. <https://doi.org/10.1007/s12517-025-12418-8>
- **Sarkar, P., Gayen, S.K., (2025).** Prioritization of sub-watersheds in the Lish tributary of the Teesta River Basin, *Journal of Discover Water, Springer International Publishing*, <https://link.springer.com/article/10.1007/s43832-025-00262-6>
- **Sarkar, A., Alam, S., Sarkar, P., Barman, P., and Gayen, S. K., (2025).** Identification of geodiversity in Kalimpong District, India: A geospatial assessment using geodiversity index and multi-criterion decision analysis approach, *International Journal of Geoheritage and Parks, Elsevier*, <https://www.sciencedirect.com/science/article/pii/S2577444125000334>
- **Ghosh, S., Mandal, M., Vijayaprakash, V., Pandey, D. and Gayen, S.K., (2025).** Geospatial Analysis of Elephant Mortalities by Electrocutation from Northern Districts Landscape of West Bengal, India, <https://doi.org/10.21203/rs.3.rs-6621321/v1>
- **Sarkar, P., Mondal, M., Sarkar, A., Gayen, S.K., (2025).** Landslide susceptibility assessment for the Darjeeling Toy Train route: A GIS and machine learning approach. *Journal of Stochastic Environmental Research and Risk Assessment*, Springer, <https://link.springer.com/article/10.1007/s00477-024-02885-y>

- **Saha, P and Gayen, S.K., (2025).** Identification of suitable land for sustainable agricultural practices in Koch Bihar district, West Bengal: A RS-GIS based MCDA approach, *Environment, Development and Sustainability*. Springer, <https://doi.org/10.1007/s10668-025-06262-9>
- **Saha, P and Gayen, S.K., (2025).** A geospatial assessment of land use changes and their influence on land surface temperature in Koch Bihar district, West Bengal. journal homepage: www.sciencedirect.com/journal/results-in-earth-sciences. <https://doi.org/10.1016/j.rines.2025.100089>
- **Das, S., Seal Sarma, U., Roy, K., Mandal, M., Gayen, S.K., (2025).** Spatiotemporal assessment of meander geometry and potential cutoff formation in the Gadadhar River of the Himalayan foothills. *Environmental Earth Sciences*. <https://doi.org/10.1007/s12665-025-12200-9>
- **Sarkar, A. & Gayen (2025)** Mapping the Field: A Systematic Bibliographic Review of Geo tourism Trends in the Twenty-First Century. *Geoheritage* (2025) <https://doi.org/10.1007/s12371-025-01090-9>
- **Sarkar, P., Gayen, S.K., (2025).** Identification of homogeneous rainfall regions and spatial-temporal variability in the Teesta River Basin. *Environmental Earth Sciences* (2025); <https://doi.org/10.1007/s12665-025-12219-y>.
- **Sarkar, P., Gayen, S.K., (2025).** GIS-based MCDM Models for Assessing Eco-tourism Potential: A case Study of High-Impact Areas in the Rani Khola Basin, Sikkim, India. *Indian Journal of Spatial Science*, EISSN:224- 4316, ISSN: 2249 - 3921; <https://zenodo.org/records/15105340>
- **Saha, P and Gayen, S.K., (2025).** Assessment of agricultural land use suitability using TOPSIS and VIKOR models: a case study of Koch Bihar district, West Bengal. *Arabian Journal of Geosciences*, Springer Nature, <https://link.springer.com/article/10.1007/s12517-025-12193-6>
- **Sarkar, A., Mondal, M., Das, S., Gayen, S. K., (2025).** Revealing ecotourism potentiality in northeast seven sister states, India: a geospatial analysis using multifaceted GIS-based approach. *Asia-Pacific Journal of Regional Science*, Springer Nature, <https://link.springer.com/article/10.1007/s41685-024-00367-1>
- **Saha, P., Das, S., Sarkar, A., Gayen, S. K., (2025).** Mapping soil erosion susceptibility by integrating AHP-TOPSIS and RUSLE model: a case study of the Kaljani River Basin, West Bengal. *Journal of Sedimentary Environments*, Springer International Publishing, Sept.2025, PP.1-21, <https://link.springer.com/article/10.1007/s43217-025-00257-2>
- **Raha, S., Mondal, M., Gayen, S. K., (2024).** Strategic Plan Formulation for the Tourism Sector of Bankura District using the SWOT and AHP Techniques. *Journal of Geographical Studies*, 8(1):18-31, Dec. 2024, <https://dx.doi.org/10.21523/gcj5.24080102>
- **Raha, S., Gayen, S.K., (2024)** Demarcation of Drought Susceptibility Zone in Bankura District, West Bengal Using Analytic Hierarchy Process and Weighted Sum Technique. *North Eastern Geographer*, Vol. 43,

No. 1(June) 2024, pp. 40-61, ISSN 0973-0915 C NEIGS (UGC-CARE Listed).

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- Sarkar, P., Gayen, S.K., (2024). Application of Entropy-AHP and WASPAS methods for prioritizing the sub watersheds of Teesta River basin in terms of soil erosion susceptibility. *Discover Environment*, Springer Nature, <https://link.springer.com/article/10.1007/s44274-024-00163-w>
- Sarkar, P., Gayen, S.K., (2024). Prioritization and Regionalisation of Sub-watershed for Flash Flood Susceptibility in the Upper Teesta River Basin, North Sikkim, India. *Journal of the Indian Society of Remote Sensing*, 2024, Springer Nature, <https://link.springer.com/article/10.1007/s12524-024-02051-5>
- Ghosh, S., Mandal, M., Das, D., Gayen S.K. (2024). Modeling on the assessment of habitat suitability and conflicting nature nexus of human-elephant-environment at the Alipurduar district in India. *Modeling Earth Systems and Environment*, 2024. Springer Nature, <https://link.springer.com/article/10.1007/s40808-024-02156-3>
- Raha, S., Gayen, S.K., Deb, S. (2024). Harnessing Machine Learning and Ensemble Models for Tourism Potential Zone Prediction for the Assam State of India. DOI: <https://doi.org/10.21203/rs.3.rs-4364952/v1>
- Saha, P., Ghosh, S., Saha, P (2024). Spatial assessment of groundwater potential zones using remote sensing, GIS and analytical hierarchy process: A case study of Siliguri subdivision, West Bengal. Applied Geomatics, Springer Publishing Company, Germany. <https://doi.org/10.1007/s12518-024-00577-4>
- Saha, P and Gayen, S.K., (2024). An integrated multi-criteria decision analysis and geographic information system-based assessment of groundwater potentiality and stress zones for sustainable agricultural practices: A case study of agriculture-dominating Koch Bihar District, West Bengal. *International Journal of Energy and Water Resource*, Springer Publishing Company, Germany. <https://doi.org/10.1007/s42108-024-00286-z>
- Das, S. and Gayen, S.K., (2024). Assessment of Bank Erosion, Accretion and Lateral Migration Using Remote Sensing and GIS: A Study on the Sankosh River of Himalayan Foothills. *Journal of the Indian Society of Remote Sensing*, Springer Publishing Company, Germany. <https://doi.org/10.1007/s12524-024-01819-z>
- Sarkar, A., Dey, S. K. and Gayen, S.K. (2024). Assessment and Mapping of Geodiversity in Darjeeling Hills, West Bengal, India. *Indian Journal of Spatial Science*, ISSN: 2249-3921, EISSN: 2249-4316. Special Issue: 2024:15 (A) Pp. 28-32

- **Raha, S. and Gayen, S. K., (2023).** Assessment of Educational Potentiality of Central and Southern States of India Using A New Composite Education Index (CEI). *Journal of Geographical Studies*, 7(1), 26-53. DOI: <https://dx.doi.org/10.21523/gcj5.23070103>
- **Sarkar, P., Seal Sharma, U and Gayen, S.K. (2023).** Prioritization of sub-watersheds of Teesta River according to soil erosion susceptibility using multi-criteria decision-making in Sikkim and West Bengal. *Arabian Journal of Geosciences (2023)* 16:398 Arabian Journal of Geosciences. <https://doi.org/10.1007/s12517-023-11423-z>
- **Dutta, R and Gayen, S.K. (2023).** Mapping the Channel Migration Zone of Raidak-I River of West Bengal, India using RS-GIS Techniques. *Indian Journal of Spatial Science (IJSS)2023. Vol.14, Issue No.1, Spring Issue, 2023, PP. 35-42.*
- **Ghosh, S., Das, D., Gayen, S. K., and Bhardwaj, P. (2023).** Delineation of groundwater potential zones using the AHP technique: a case study of Alipurduar district, West Bengal. *Modeling Earth Systems and Environment (2023)*, <https://link.springer.com/article/10.1007/s40808-023-01733-2>
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- **Raha, S. and Gayen, S.K. (2022).** Tourism Potentiality Zone Mapping by Using the AHP Techniques: A Study on Bankura District, West Bengal, India. *Journal of Geographical Studies (ISSN 2582-1083) (Online), Vol.6, Issue. 2, PP-58-85, Gatha Cognition* <http://dx.doi.org/10.21523/gcj5>
- **Raha, S. and Gayen, S.K. (2022).** Analysis of Rainfall Trend along with Change-point: Study on Purulia District, West Bengal, India. *Journal of Earth Sciences and Technology (JEST) ISSN: 2719-4094, Vol.3, Issue No. 3(2022), PP-111-129*
- **Gayen, S.K., Biswas, C., Poddar, S. (2022).** Seasonal Tourism, Livelihood and Income Instability of Mountaineering Sherpas of West District, Sikkim, India. *Indian Journal of Spatial Science (IJSS), EISSN: 2249-4316, ISSN: 2249-3921. Volume: 13 No: 03, Autumn Issue, 2022. PP- 86-91.*
- **Dey, S. K. and Gayen, S. K. (2022).** Ravage caused by industrial effluents- A case study on transboundary river Mathabhanga-Churni, Nadia, West Bengal. *Indian Journal of Spatial Science (IJSS) EISSN: 2249-4316, ISSN: 2249-3921), Vol. 13, Issue. 2 (Summer Issue), Pp-16-21*

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DOI: <https://link.springer.com/article/10.1007/s41685-022-00237-8>
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<https://doi.org/10.19184/geosi.v7i3.34487>
- **Raha, S. and Gayen, S. K. (2021).** Comparative study of different exponential smoothing models in simulation of meteorological drought: A study on Purulia district, West Bengal, India. *Journal of Applied and Natural Science (ISSN: 2231-5209 Online) Vol.13, Issue. 2, Pp. 504-511*
- **Roy, K., Seal Sarma, U. and Gayen, S.K. (2021).** Assessment of variation of Land Surface Temperature in response to Land Use/ Land Cover changes in Cooch Behar-I block, India. *Adalya Journal, Vol.10, Issue. 11, Nov. 2021, Pp-72-87,*
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- **Raha, S. and Gayen, S. K. (2020).** Simulation of meteorological drought using exponential smoothing models: a study on Bankura District, West Bengal, India. *SN Applied Sciences, 2020, Springer Nature,* <https://doi.org/10.1007/s42452-020-2730-3>
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- **Dey, S. K. and Gayen, S. K. (2019).** The Shifting of Off-Take Points at the Gangetic Flood plain-A case study of Mathabhanga River. *Indian Journal of Regional Science*, (ISSN: 0046-9017), Vol. LI, No. 2, PP.39-46.
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- **Raha, S. and Gayen, S. K. (2019).** Simulation of Meteorological Drought of Bankura District, West Bengal: Comparative Study between Exponential Smoothing and Machine Learning Procedures. *Journal of Geography, Environment and Earth Science International* (ISSN: 2454-7352), 22 (1):1-16, 2019; Article No. JGEESI.49074,
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