

Programme Schedule

Registration: 09.00 - 10.00 hrs

Inaugural Session

Venue: CIRDAP Auditorium, Chameli House, 17 Topkhana Road, Dhaka

Date: 03 May, 2025

Time: 10.00 -11.30 hrs.

Poster Session

Venue: 1st Floor, CIRDAP

Date: 03 May, 2025, Time: 11.30-12.30 hrs.

Technical Session 1

Theme 1: Quaternary Geology and Delta Building Processes

Venue: Venue-1: Auditorium, Ground Floor

Date: 03 May, 2025; Time: 12.30 -13.30 hrs.

Chair: Prof. Dr. Sharif Hossain Khan, Department of Geological Sciences, Jahangirnagar University

Co-Chair: Mr. Md. Kamal Hossain, Director (Geology), GSB

Rapporteur: Ms. Tahera Afrin, Assistant Director (Geology), GSB

1. Vertebrate Fossils Evidence, $\delta^{18}\text{O}$ and $\delta^{13}\text{C}$ Records of Pedogenic Soil Carbonates of Red Clay and Their Significant Role for Middle Pleistocene Paleoenvironmental Interpretation, Barind Tract, NW Bangladesh
Md. Shafiqul Alam
2. Geomorphological Evolution and Present-day Processes in the Rangabali and Surrounding Islands, Meghna Estuary, Bangladesh
Md. Bazlar Rashid, Md. Rubel Sheik, Kamrul Ahsan
3. Signature of Holocene Marine Transgression in Sub-Surface Sediments of Mahananda Floodplain, Western Barind Tract, NW Bengal Basin
Md. Sultan-Ul-Islam, Ms. Fahima Ferdousy, Aftab Alam Khan, Ismail Hossain and H M Zakir Hossain
4. Lithological and Geochemical Characteristics of the Eocene-Miocene Sediments of the Surma Basin, Bangladesh: Understanding the Changes of Depositional Environment and Sediment Sources
Md. Masidul Haque, Md. Ashikur Rahman, Ismail Hossain, KhondakerEmamul Haque, Koichi Hoyanagi

Technical Session 2

Theme 9: Structural Geology and Tectonics of Bengal Basin and Theme 4: Engineering Geology for Development Planning and Urbanization

Venue: Venue-2: 1st Floor, Auditorium, CIRDAP

Date: 03 May, 2025; Time: 12.30 -13.30 hrs.

Chair: Prof. Dr. Md. Bodruddoza Mia, Department of Geology, University of Dhaka

Co-Chair: Mr. Md. FerujAlam, Deputy Director (Geology), GSB

Rapporteur: Mr. Faruk Hossain, Assistant Director (Geology), GSB

1. Engineering Geological 3D Modelling for Urban Planning-A Case Study of Aftabnagar, Dhaka, Bangladesh
Sarwat Jabeen, Nurun Nahar Faruqa, Mohammad Abdul Aziz Patwary, Mohammad Ashraful Kamal
2. Formation Evaluation Using Geophysical Logs of Saldanadi Well# 1, Bangladesh
Kamruzzaman, Md. Upal Shahriar, Md. Masuk-Un-Nabi, Md. Zakir Hossain, AfridaWasima, Md. Tawhidul Aziz, Md. Maniruzzaman Bhuiyan, Md. Shahadat Hossain, Md. Maksudul Islam and Koushik Roy
3. Understanding of Structural Configuration and Geometry of the Bengal Basin for a Rational Seismic Risk Assessment of Bangladesh
Mir Fazlul Karim and Md. Zillur Rahman
4. A Tectonic Insight for Seismic Risk Assessment for Disaster Management in Bangladesh
Mir Fazlul Karim and Md. Zillur Rahman

Technical Session 3

Theme 12: Geophysical Applications for Exploration and Development Activities and Theme 4. Engineering Geology for Development Planning and Urbanization

Venue: Venue-3: 1st Floor, Hall Room, CIRDAP

Date: 03 May, 2025; Time: 12.30 -13.30 hrs.

Chair: Prof. Dr. Delwar Hossain, Department of Geological Sciences, Jahangirnagar University

Co-Chair: Mohammed Hasan Shahariar, Deputy Director (Geology), GSB

Rapporteur: Mr. Kamruzzaman, Assistant Director (Geophysics), GSB

1. Gravity and Magnetic Investigations in the Highest Positive Gravity Anomaly in Bangladesh at Chapai Nawabganj and Naogaon Districts
Sultana Nasrin Nury, Md. Shahjahan and Md. Selim Reza
2. Seismic Refraction Survey for Configuring the Archaean Basement Complex in Porsha, Patnitala, and Dhamoirhat Upazilas of Naogaon District, Bangladesh
Md. Selim Reza, Mohammad Zohir Uddin and Tushar Kanti Roy
3. Application of Multi-Electrode Electrical Resistivity Tomography Survey to Delineate Aggregate Resources in Lovachara, Kanaighat, Sylhet
Md. Shahjahan, Kamruzzaman and Afrida Wasima
4. Three-Dimensional Shallow Subsurface Lithological Modeling of the Ganges Delta: A Case Study of Khulna City, Bangladesh
Faruk Hossain, Nurun Nahar Faruqa and Mohammad Ashraful Kamal

Technical Session 4

Theme 5: Geo-hazard, Geo-environmental Problems and Mitigation SDGs

Venue: Venue-1: Auditorium, Ground Floor, CIRDAP

Date: 03 May, 2025; Time: 14.30 - 15.30 hrs.

Chair: Prof. Dr. Md. Badrul Islam, Department of Geology and Mining, University of Rajshahi

Co-Chair: Mr. Md. Abu Sayem, Deputy Director (Geology), GSB

Rapporteur: Md. Ahsan Habib, Assistant Director (Geology), GSB

1. Primordial Radionuclides in the Trans-boundary River Sediments Across the Dauki Fault Belt, at the North-east Bangladesh: Implication from U-Th Mineralization and Radiological Consequences
Sudeb Chandras Das, Mohammad Rajib, Md. Golam Rasul, Mohammad Zafrul Kabir, Farah Deebe, Md. Moniruzzaman, Nafisa Tamannaya Dina, Tumpa Saha
2. Impacts of Morphology on Environment Induced by Polders in the Southwest Tidal Flat of Bangladesh
Reshad Md. Ekram, Md. Shafiqul Aland Khalil R. Chowdhury
3. Evaluation of Landsubsidence in a Multi-slicing Coal Seam of the Barapukuria Coal Mine
Md. Abdul Malek, Sohail Kabir, Mushfique Ahmed

Technical Session 5

Theme 5: Geo-hazard, Geo-environmental Problems and Mitigation SDGs

Venue: Venue-2: 1st Floor, Auditorium, CIRDAP

Date: 03 May, 2025; Time: 14.30 - 15.30 hrs.

Chair: Dr. Anwar Zahid, Former Director, Bangladesh Water Development Board

Co-Chair: Mr. Mohammad Alamgir Kabir, Deputy Director (Geology), GSB

Rapporteur: Ms. Shahida Akter, Assistant Director (Geology), GSB

1. Stressed Environmental Condition and Pollution Monitoring Using Recent Benthic Foraminifera: A study Along the Sandwip Channel Around the Ship Breaking Yard of Chattogram, Bangladesh
Kazi Munsura Akther, Syeda Jesmin Haque, Asma Huque and Tanzim Tamanna Afroz
2. Geo-environmental Degradation of St. Martin's Island, Bangladesh
Md. Shamsuzzaman
3. Geological and Environmental Impacts of Light Pollution: A Case Study of Rajshahi City Corporation, Bangladesh
Fatema Akter Mitu, Safayet Mostofa, Md. Abdur Rahman, Ahmadullah Zaman
4. The Significance of Considering Hydro-meteorological Risks for Safe Nuclear Power Planning
Moniruzzaman Md., Rezaul Karim, Noor Tushar, Nafisa Dina, Saha Tumpa and Asad Hussain

Technical Session 6

Theme 5: Geo-hazard, Geo-environmental Problems and Mitigation SDGs and Theme 14: Geo-ethics: Geology for the Society and SDGs

Venue: Venue-3: 1st Floor, Hall Room, CIRDAP

Date: 03 May, 2025; Time: 14.30 - 15.30 hrs.

Chair: Prof. Md. Jamal Uddin, Department of Environmental Sciences, Jahangirnagar University

Co-Chair: Mr. Md. Nuruzzaman Sabuj, Deputy Director (Geology), GSB

Rapporteur: Mr. Tushar Kanti Roy, Assistant Director (Geophysics), GSB

1. Impacts of Dredging and Reclamation Project in the IWT Corridor of Bangladesh
Naeem Muhammed and Md. Mizanur Rahman
2. Integrating Geoethics and Interdisciplinary Strategies: Advancing Resilience and Sustainable Development of Bangladesh
Md. Jahangir Alam
3. Pondering Over Geoscientific Writing and Geoscience Writing
A. K. M. Khorshed Alam

Technical Session 7

Theme 2: Exploration of Mineral Resources and Theme 7: Hydrogeology, Geochemistry and Water Resource Management

Venue: Venue-1: Auditorium, Ground Floor, CIRDAP

Date: 03 May, 2025; Time: 16.00 - 17.00 hrs.

Chair: Dr. Md. Nehal Uddin, Former Director General, GSB

Co-Chair: Ms. Kazi Mansura Akter, Deputy Director (Geology), GSB

Rapporteur: Mr. Md. Hossain Al Imran, Assistant Director (Geology), GSB

1. Comparative Analysis of Deep Learning Architectures for Multi-Class Mineral Classification: A Study Using EfficientNet and ResNet Models
Minhaz Chowdhury, Shreoshi Roy Shrima, Md Shofiqul Islam
2. Advancing Multi-Class Mineral Classification with Generative AI: A Study of EfficientNet and ResNet Models
Minhaz Chowdhury, Shreoshi Roy Shrima, Md Shofiqul Islam
3. Participatory Rural Appraisal (PRA) Approach and Hydrological Investigation for Groundwater Management in Chapainawabganj District
Md. Jahid Hossain, Md. Sydur Rahman Khan, M. Aminul Haque and Nur Alam
4. Heavy Metal Pollution and Spatial Distribution in Surface Water and Sediments of Dhamrai Upazila, Bangladesh
Shahataj Karim, Riyadul Islam, Md. Rashedul Hasan, Shahida Akter and Khaleda Afrin

Technical Session 8

Theme 3: Energy and Power for Sustainability

Venue: Venue-2: 1st Floor, Auditorium, CIRDAP

Date: 03 May, 2025; Time: 16.00 - 17.00 hrs.

Chair: Abdul Baquee Khan Majlis, Former Deputy Director General, GSB

Co-Chair: Mr. Mohammad Masum, Deputy Director (Geology), GSB

Rapporteur: Mr. Mohammad Omer Faruq Khan, Assistant Director (Geology), GSB

1. AI-Driven Approaches to Coal Gasification: Enhancing Efficiency, Reducing Emissions, and Advancing Sustainable Energy Solutions
Minhaz Chowdhury, Shreoshi Roy Shrima, Md Shofiqul Islam
2. Provenance and Reservoir Quality of the Hydrocarbon-Bearing Neogene Sandstone Reservoirs in the Begumganj Structure, Bengal Basin, Bangladesh
Padmasree Paul, M. Juleh Jalalur Rahman and Abu Sadet Md. Sayem
3. Enhancing the Energy Transition Through Clean Technologies and Decarbonization Strategies Towards a Sustainable Energy Future of Bangladesh
Md. Jahangir Alam
4. Harnessing Brown Hydrogen: Pathways to a Sustainable Energy Future for Bangladesh
Md. Jahangir Alam

Technical Session 9

Theme 6: Climate Change, Issues, Mitigation and Resilient Bangladesh

Venue: Venue-3: 1st Floor, Hall Room, CIRDAP

Date: 03 May, 2025; Time: 16.00 - 17.00 hrs.

Chair: Prof. Dr. M. Shafiqul Alam, Department of Geology and Mining, University of Rajshahi

Co-Chair: Dr. Md. Samsuzzaman, Deputy Director (Geology), GSB

Rapporteur: Ms. Afrida Wasima, Assistant Director (Geophysics), GSB

1. The Effect of Salinity on Aquatic Macrophytes and it's Application Along the Coastal Area of Bangladesh
Mahfuza Parveen, S.M. Mahmudur Rahman, Tarek Shahriar
2. Geospatial Insights into the Impact of Climate Change on Urban Heat Islands and Public Health in Dhaka, Bangladesh
Maria Moktadira Shuchi, Farjana Begum, Md Khairul Haque
3. Climate Change Influence on the Flash Flood Hazard in Tahirpur Upazila, Sunamganj District, Bangladesh
Rajib Kumar Saha
4. Flash Flood 2024 in Feni, Noakhali and Lakshipur Districts and Future Action Plan
Md. Bazlar Rashid, Md. Rubel Sheik, Mohammad Abdul Aziz Patwary, Mohammad Ashraful Kamal, Md. Kamrul Ahsan, Md. Mizanur Rahman, Md. Shahdat Ali

Technical Session 10

Theme 7: Hydrogeology, Geochemistry and Water Resource Management

Venue: 3th Floor, Seminar Room (GSB)

Date: 04 May, 2025; Time: 09.45 - 11.00 hrs.

Chair: Dr. Ratan Kumar Majumder, Chief Geologist, Nuclear Minerals Unit, Bangladesh Atomic Energy

Commission, Savar, Dhaka 1349, Bangladesh

Co-Chair: Ms. Shahtaj Karim, Deputy Director (Geology), GSB

Rapporteur: Mr. Md. Nur-Alam, Assistant Director (Geophysics), GSB

1. Estimation of Groundwater Resource and Suitability of GWREC-97 Methodology for Riverside Aquifers: A Case Study
Md. Masuk-Un-Nabi, Khairul Bashar, Mazeda Islam, Farhana Kabir and Md. Mizanur Rahman Sarker
2. Analyzing Piezometric Level Trends and Management Gaps: A Case Study in Jahangirnagar University
Sakibul Islam, Mazeda Islam, Md. Mizanur Rahman Sarker and Imrul Kayes
3. Hydrochemistry of Arsenic Contaminated Groundwater in Southeastern Bangladesh: Implication for Arsenic Mobilization
A.H.M. Selim Reza, Harue Masuda, Nozomu Hiarai, Atsunao Marui, Masahiko Ono
4. Mapping Potential Zones for Groundwater Recharge in Cumilla District, Bangladesh: An Integrated Approach using AHP, Fuzzy-AHP, and GIS
Md. Mahedi Hasan, Md. Ibrahim Adham, Iftekharul Islam, Muqit Ajmain Shahriyar, Arani Mitra Adri, Obaida Urme
5. Groundwater Quality in the Barind Tract and Floodplain Regions of Naogaon District, Bangladesh: A Hydrogeochemical and GIS Perspective
MT. Sharmin Aktar, Khondaker Emamul Haque, Md. Moniruzzaman and Shamim

Technical Session 11

Theme 7: Hydrogeology, Geochemistry and Water Resource Management

Venue: 3th Floor, Conference Room (GSB)

Date: 04 May, 2025; Time: 09.45 - 11.00 hrs.

Chair: Prof. Dr. A. H. M. Selim Reza, Department of Geology and Mining, University of Rajshahi

Co-Chair: Mr. Mohammad Zohir Uddin, Deputy Director (Geophysics), GSB

Rapporteur: Mr. Md. Harun Or Rashid, Assistant Director (Geology), GSB

1. Isotopic and Hydrogeochemical Assessment of the Central Deltaic Zone in Bangladesh: Integrating Source, Water Quality and Health Risk Indices
Md Moniruzzaman, Hafizur Rahman Tanim, Ratan Kumar Majumder

2. Groundwater Source, Water Quality, and Health Risk Assessment in the Jamuna Floodplain, Bangladesh: An Isotopic and Hydrogeochemical Approach
Hafiz Al- Asad, Md Moniruzzaman
3. Hydrochemical Evolution and Groundwater Quality of the Aquifer System in Jahangirnagar University Campus and Its Surrounding Area
Mazeda Islam, Shara Dil Afroz Sithy, Md. Mizanur Rahman Sarker, Md. Abdul Quaiyum Bhuiyan, Badhan Saha, Md. Sabuj Mia and Md. Ferdous Alam
4. Deciphering Coastal Hydrostratigraphy Through Integrated Resistivity Survey and Geophysical Logging: Towards a Sustainable Fresh Aquifer for Drinking Water Supply in Noakhali Town, Bangladesh
Md. Shahjahan and ASM Woobaidullah

Technical Session 12

Theme 4: Engineering Geology for Development Planning and Urbanization

Venue: 1st floor, Seminar Room (GSB)

Date: 04 May, 2025; Time: 09.45 - 11.00 hrs.

Chair: Prof. Dr. A.T.M. Shakhawat Hossain, Department of Geological Sciences, Jahangirnagar University

Co-Chair: Mr. Md. Mahmood Hossain Khan, Deputy Director (Geology), GSB
Rapporteur: Mr. Anwar Sadat Md Sayem, Assistant Director (Geology), GSB

1. Shear Wave Velocity Determination in Gopalganj Municipality and Surrounding Areas by Combined Analysis of Downhole Seismic and Multichannel Surface Wave Data
Md. Mahmood Hossain Khan, Mohammad Khairul Islam, Mohammad Feruj Alam, Sarwat Jabeen, Faruk Hossain, Tahera Afrin, Mohammad Ashraf Kamal and Nurun Nahar Faruqa
2. Sustainable Planning and Management of Hilly Terrain in the Kutupalong Rohingya Camp Area, Ukhiya, Cox's Bazar, Bangladesh: A Geotechnical Data Analysis and Soil Property Investigation
Khan, PA, Hossain, ATMS, Sayem, HM, Haque, ME, Khatun, M. Imam, MH, Jafrin, SJ, Dutta, T, Bakali, R
3. Stabilization of Low Strength Soil Using Fly Ash and Cement
Md. Asmaul Islam, Hossain Md. Sayem and Nousat Ara Maghla
4. Geotechnical Properties of Clayey Soil Stabilized with Rice Husk and Cement
Nousat Ara Maghla, Hossain Md. Sayem, Mahmuda Khatun and Md. Asmaul Islam
5. Geotechnical Analysis of Sandy Soil from the Dupi Tila Formation: Implications for Engineering Applications in Sylhet, Bangladesh
Maliha Anzuman, Md. Shofiqul Islam, Md. Ashraf Hossain, Ummae Habiba Sultana

Technical Session 13

Theme 8: Blue Economy, Coastal and Marine Geology

Venue: 3rd Floor, Seminar Room (GSB)

Date: 04 May, 2025; Time: 11.30 - 12.30 hrs.

Chair: Dr. A.K.M. Khorshed Alam, Former Director General, GSB

Co-Chair: Ms. Nurun Nahar Faruqa, Deputy Director (Geology), GSB

Rapporteur: Mr. Koushik Roy, Assistant Director (Geophysics), GSB

1. Organic Matter Source and Paleoclimate Variability of Multicore Sediments from the Andaman Sea Off Myanmar
H. M. Zakir Hossain
2. Grain Size Distribution and Characterisation of Sedimentary Processes of Cox's Bazar Beach, Bangladesh: Implications for Understanding Morphology and Coastal Dynamics
Md. Masidul Haque, Mozammel Haque, Koichi Hoyanagi
3. Towards Sustainable Development: The International Laws and Geospatial Techniques in Addressing Transboundary Waste Dumping in Marine Areas of Bangladesh
Nahadul Islam, Md Golam Kibria, Md Khairul Haque, S. M. Imran Bin Yousuf Ornob
4. Evaluation of Trace and Rare-earth Elements in Core Sediments from the Sundarbans Coastal Area of Bangladesh
Md. Aminul Islam, H. M. Zakir Hossain, Anas Al Hossain, Zhifei Liu, Mingyang Yu, Razia Sultana, Umme Asrafi Ananna, Sabit Hossain

Technical Session 14

Theme 10: Stratigraphy and Biostratigraphy

Venue: 3th Floor, Conference Room (GSB)

Date: 04 May, 2025; Time: 11.30 - 12.30 hrs.

Chair: Prof. Dr. Md. Anwar Hossain Bhuiyan, Department of Geology, University of Dhaka

Co-Chair: Dr. Md. Ahsan Habib, Deputy Director (Geology), GSB
Rapporteur: Ms. Khaleda Afrin, Assistant Director (Geology), GSB

1. Facies and Architectural Element Analysis of the Exposed Oligocene Succession in and Around Jaintiapur, Surma Basin, Northeastern Bangladesh

Md. Rasel Sarker, *Md. Abdur Rahman, Shanto Mia*

2. Paleoenvironments of the Oligocene Renji Formation, Bengal Basin, Bangladesh: Implications from Lithofacies and Biofacies Aspects

Md. Sultan-Ul-Islam, *Mrinal Kanti Roy and K M Rajibul Hasan*

3. Distribution of Ostracoda in the Sediments of the Southeastern Coast of Bay of Bengal, Bangladesh-Implications for Microenvironment

Md. Harun or Rashid, *Kazi Masnura Akhter, Syeda Jesmin Huque, Sabina Yeasmin, Arif Porag and Tanzim Tamanna Afroz*

4. Paleoenvironmental Reconstruction and Petroleum Generation Analysis Using Palynological and Diatomaceous Evidence from Reservoir Rocks

Sveda Jesmin Haque, *Kazi Munsura Akther, and Asma Huque*

Technical Session 15

Theme 11: Petrology and Mineralogy

Venue: 1st floor, Seminar Room (GSB)

Date: 04 May, 2025; Time: 11.30 - 12.30 hrs.

Chair: Prof. Dr. Khondokar Emamul Haque, Department of Geology and Mining, University of Rajshahi

Co-Chair: Ms. Sarwat Jabeen, Deputy Director (Geology), GSB

Rapporteur: Ms. Sabina Yesmin, Assistant Director (Geology), GSB

1. Gem-quality Minerals Investigation from Placer Gravel Deposits in Panchagarh District, Bangladesh: Implications of Potential Sources and Links to Pleistocene Glaciations

Ismail Hossain, *Iftakharul Islam, Anna Karanina and Mozammel Haque*

2. Integrated Evaluations of the Changing Subsurface Lithology in the Surrounding of Rajshahi City Corporation and Adjoining Padma River Bar Sediments: Constraint to Chemical, Mineralogical and Radiological Characteristics

Anna Karanina, *Ismail Hossain, Iftakharul Islam, Md. Moniruzzaman, Pradip Kumar Biswas*

3. Provenance and Tectonic Implications of the Oligocene Barail Group Sandstones from the Sylhet Trough, Bengal Basin: Constraints from Petrography and Major Element Geochemistry

Sunijukta Mohinta, *Abu Sadat Md. Sayem, Rashed Abdullah, Md. Sha Alam*

Technical Session 16

Theme 12: Geophysical Applications for Exploration and Development Activities and Theme 5: Geo-hazard, Geo-environmental Problems and Mitigation SDGs

Venue: 3th Floor, Seminar Room (GSB)

Date: 04 May, 2025; Time: 14.30 - 15.30 hrs.

Chair: Prof. Dr. A.S.M. Woobaidullah, Department of Geology, University of Dhaka

Co-Chair: Mr. Md. Shahjahan, Deputy Director (Geophysics), GSB

Rapporteur: Ms. Masuk-un-Nabi, Assistant Director (Geophysics), GSB

1. Application of Geo-electrical Resistivity Survey and Bore Log Data for the Delineation of Hydrogeological Condition of Tala Upazila, Satkhira District

Nahian Islam Nirjhar, *ASM Woobaidullah*

2. Subsurface Characterization of Purbachal Town, Dhaka for Seismically Hazardous Zone (Micro zonation) Identification

Syed Nazrul Islam and Tanzim Tamanna Afroz

3. Review of the Geophysical Explorations Activities of GSB in the North-Western Part of Bangladesh

Sultana Nasrin Nury, *Nazmun Nahar, Tushar Kanti Roy and Sirajum Munira*

4. GIS Approaches for Mapping Drought-Prone Areas: A Comparison of Logistic Regression, Weight of Evidence, Frequency Ratio Methods

Ahmadullah Zaman, *Fauzia Khoshnobish, Md Nahid Ferdous, Mohammad Ismail Hossain*

Technical Session 17

Theme 13: Geospatial Analysis, Techniques for Sustainable Development Planning of Bangladesh

Venue: 3th Floor, Conference Room (GSB)

Date: 04 May, 2025; Time: 14.30 - 15.30 hrs.

Chair: Prof. Dr. Md. Mahfuzul Haque, Department of Geological Sciences, Jahangirnagar University

Co-Chair: Mr. Md. Nazwanul Haque, Deputy Director (Geology), GSB

Rapporteur: Mr. Md. Jahangir Alam, Assistant Director (Geology), GSB

1. Development of Vertical Offshore Reference Frame (VORF) for Precise Geospatial Analysis in Maritime Areas of Bangladesh

Haider Jahan Khan Emon

2. UAV Application and Satellite Image Analysis in Placer Mineral Exploration at Coastal Deposits of Cox's Bazar, Bangladesh

Md. Golam Rasul, Ratan Kumar Majumder, Mohammad Zafrul Kabir, Farhana Islam, Farah Deebea, Mohammad Rajib, Md. Masud Karim, Md. Moniruzzaman Sumon, K M Jalal Uddin Rumi, Sanjib Karmaker, Md. Moniruzzaman Monir, Rahnuma Siddique, Md. Fahad Hossain, Nafisa Tamannaya Dina, Sudeb Chandra Das, Tumpa Saha

3. Assessing Ground Subsidence Risk in Dhaka City and Its Surrounding Areas, Bangladesh: Insights from Multi-Temporal InSAR Technique

Rintu Roy and R. S. Chatterjee

4. Assessing Urban Expansion through GIS and Remote Sensing: A Study of Land Use and Land Cover Changes in Gazipur

Sanzida Akter, Md. Khairul Haque

Technical Session 18

Theme 13: Geospatial Analysis, Techniques for Sustainable Development Planning of Bangladesh

Venue: 1st floor, Seminar Room (GSB)

Date: 04 May, 2025; Time: 16.30 - 15.30 hrs.

Chair: Dr. Reshad Md. Ekram Ali, Former Director General, GSB

Co-Chair: Mr. Md. Sohel Rana, Deputy Director (Geology), GSB

Rapporteur: Mr. Md. Rubel Sheikh, Assistant Director (Geology), GSB

1. Characteristics of River Morphology and Bottom Topography Around the Padma Multipurpose Bridge Site

Konika Sultana Kona and Md. Mahfuzul Haque

2. Ground Subsidence Study of Faridpur Town and Surrounding Area Using RADAR InSAR for Sustainable Spatial Urban Planning and Development

Md. Nazwanul Haque, Rintu Roy, Mohammad Ashraful Kamal

3. Development of Land Use Suitability Map of Faridpur Town area for Spatial Urban Development Planning Using GIS and Multi-Criteria Analysis of Geo-factors

Mohammad Ashraful Kamal, Sarwat Jabeen, Nurun Nahar Faruqa, Md. Mahmood Hossain Khan, Mohammad Feruj Alam, Md. Nazwanul Haque, Rintu Roy, Tahera Afrin, Mohammad Khairul Islam, Andreas Gunther, Werner Buchert

4. Detection of Spatio-Temporal Changes in the Jamuna River at Sonatola Upazila, Bogura District

Md. Nazwanul Haque, Syed Nazrul Islam, Shawon Talukder, Rintu Roy

Closing Session

Venue: GSB

Date: 04 May, 2025; Time: 16.00 -18.00 hrs.

List of Posters

Theme 1: Quaternary Geology and Delta Building Processes

1. Unraveling the Geomorphology and Neotectonics of the Mid-Bengal Basin from Fluvial Sediments: A Case Study of Shibalya-Daulatpur Upazila, Manikganj District, Bangladesh
Md. Jahangir Alam, Abu Syed Mohd. Faisal and Md. Mizanur Rahman
2. Volcanic Ash Deposit at Aliarhat, ShibganjUpazila, Bogura District, Bangladesh
Kamrul Ahsan

Theme 2: Exploration of Mineral Resources

1. Mineralogical and Geochemical Characterization, and Physicochemical Properties of Kaolin from MadhabpurUpazila, Habiganj District, Bangladesh
ShawonTalukder
2. Geochemical Prospecting of for Lithium in the River Sands of Dharla, in Kurigram District, of Bangladesh
Mohammad Omer Faruk Khan, Md. Ali Akbar, Dr. Md. Ahsan Habib, Md. Sohel Rana, Riyadul Islam, Md. Rashedul Hasan
3. Concentration of Heavy Minerals and Its Economic Potentiality along the Padma River, Kushtia, Bangladesh
Fazal M. Mohi Shine

Theme 5: Geo-hazard, Geo-environmental Problems and Mitigation SDGs

1. Hydraulic Characteristics and Bank Erosion Rate of Padma River from LalpurtoIshwardi, Bangladesh
Md. Atiqur Rahman, Md. Naim Ahmed, Md. Raihanul Islam Shakil, Most. Tania Khatun, Younus Ahmed Khan
2. Statistical Predictive Approach for Bank Erosion of Atrai River from Ahsangonj to Singra, Rajshahi, Bangladesh
Md. Raihanul Islam Shakil, Md. Naim Ahmed, Most. Tania Khatun, Md. AtiqurRahmanand, Younus Ahmed Khan
3. Stability and Cantilever Failuremodel of Mahananda River of Nawabganj Sadar Upazila, Chapai-Nawabganj
Most. Tania Khatun, Md. Raihanul Islam Shakil, Md. Naim Ahmed, Md. Atiqur Rahman and Younus Ahmed Khan
4. Bed Degradation Model and Empirical Sediment Transport of Jamuna River and its Impact on Embankment Stability from Kazipur to Sirajganj Hard Point, Bangladesh
Md. Naim Ahmed, Md. Raihanul Islam Shakil, Most. Tania Khatun, Md. Atiqur Rahman and Younus Ahmed Khan
5. Application of Sentinel-1 Data for Flood Hazard Monitoring: A Case Study of Sirajganj District, Bangladesh
Md. Azahar Hossain, Nanette C. Kingma
6. Inclusive Disaster Preparedness for Persons with Disabilities in Flood-Prone Areas: Assessing Geomorphological Changes and Vulnerabilities in Rowmari, Kurigram, Bangladesh
Deepti Sarkar
7. Flood Susceptibility Mapping of Bangladesh under Changing Climate Using IPCC Projections and Machine Learning Techniques
Md. Walid Hossen Tamim

Theme 7: Hydrogeology, Geochemistry and Water Resource Management

1. Groundwater Quality Assessment of Deep Aquifer and its Impact on Human Health in Dhaka Metropolitan City, Bangladesh
Shahida Akter, Anwar Saadat Mohammad Sayem, Md. Rashedul Hasan, Riyadul Islam
2. Assessment of Groundwater Quality and Its Effect on Human Health in Savar Upazila of Dhaka District, Bangladesh
Shahida Akter, Riyadul Islam, Md. Kamal Hossain, Md. Rashedul Hasan
3. Assessment of Sea Water Intrusion in the Chattogram City: Insights from Hydrogeology and Hydrochemical Analysis
Md. Aftab Uddin Shawan, Khairul Bashar and Rashed Abdullah

Theme 8: Blue Economy, Coastal and Marine Geology

1. Blue Tourism Potentiality in the Khurushkul Area of Cox's Bazar District, Bangladesh

Md. Shamsuzzaman

Theme 11: Petrology and Mineralogy

1. Textural and Petrographic Characterization, and Distribution of Heavy Minerals in Sand Deposits of the Teesta River, Bangladesh

Md. Shohanur Rahman Sohan, Rumana Yeasmin, M. Julleh Jalalur Rahman, Abu Sadat Md. Sayem, Md. Sohel Rana

2. Petrography and Mineral Chemistry of Padma River Bar Sediments: Implications for Provenance and Petrogenesis

Nafisa Tabassum, Ismail Hossain, Pradip Kumar Biswas and Karima Sultana

Theme 12: Geophysical Applications for Exploration and Development Activities

1. Improving Insights into Petrophysics Using Geophysical Data for the Habiganj Structure, Surma Basin, Bangladesh

Kamruzzaman, Delwar Hossain, Mizanur Rahman Sarker, Mahmuda Khatun and Md. Upal Shahriar

2. 3D Modeling in Geoscience: A Tool for Unveiling Near-Surface Depositional History in Faridpur, Satkhira, Barishal and Khulna Town and Surroundings

Nurun Nahar Faruqa, Mohammad Ashraful Kamal, Sarwat Jabeen, Faruk Hossain

Theme 13: Geospatial Analysis, Techniques for Sustainable Development Planning of Bangladesh

1. Geospatial Monitoring of Land Cover Transformation in Char Kukri Mukri: Implications for Coastal Sustainability.

Md. Sayem, Najia Lamia

3. Relation Between Development and Land Use Land Cover Changes and Its Impact on Surface Temperature

Hossain Mohammad Arifeen, Md. Hossain Al Imran, Tahera Afrin, Asma Huque