Netaji Satabarshiki Mahavidyalaya, Ashoknagar

Add-On Course on

Tools and Techniques in Geomorphic Studies

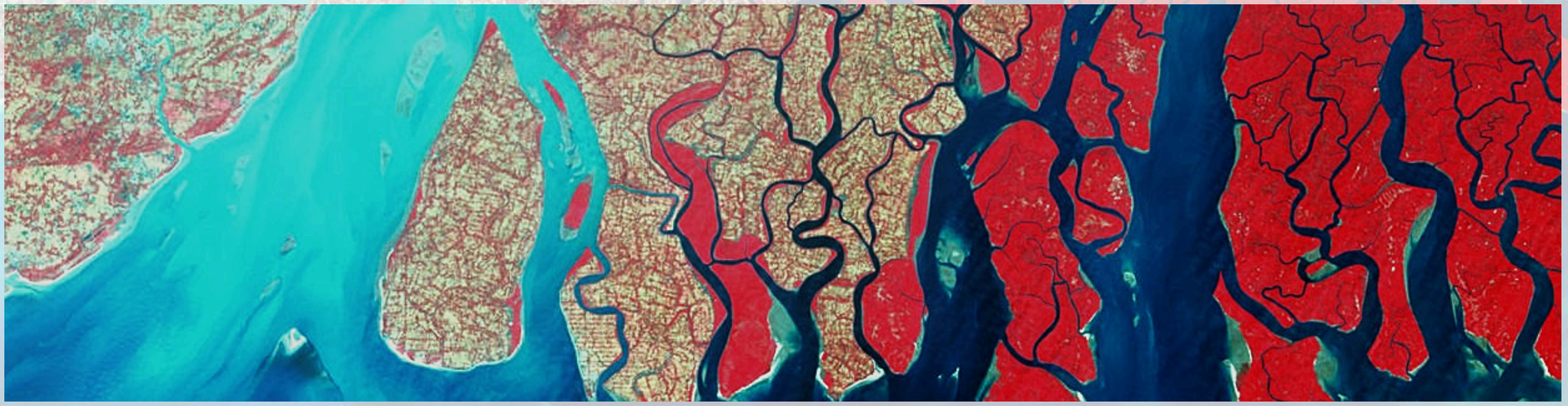
Practical Applications and Case Studies

Conducted by

Department of Geography

Scheduled from

March 15 to April 30, 2024



Netaji Satabarshiki Mahavidyalaya, Ashoknagar, Sahidbag, P.O.- Haripur, North 24 Parganas, West Bengal- 743223

Netaji Satabarshiki Mahavidyalaya, Ashoknagar

Field Training at Sagar Island and Ghoramara Island

for Add-On Course on

Tools and Techniques in Geomorphic Studies

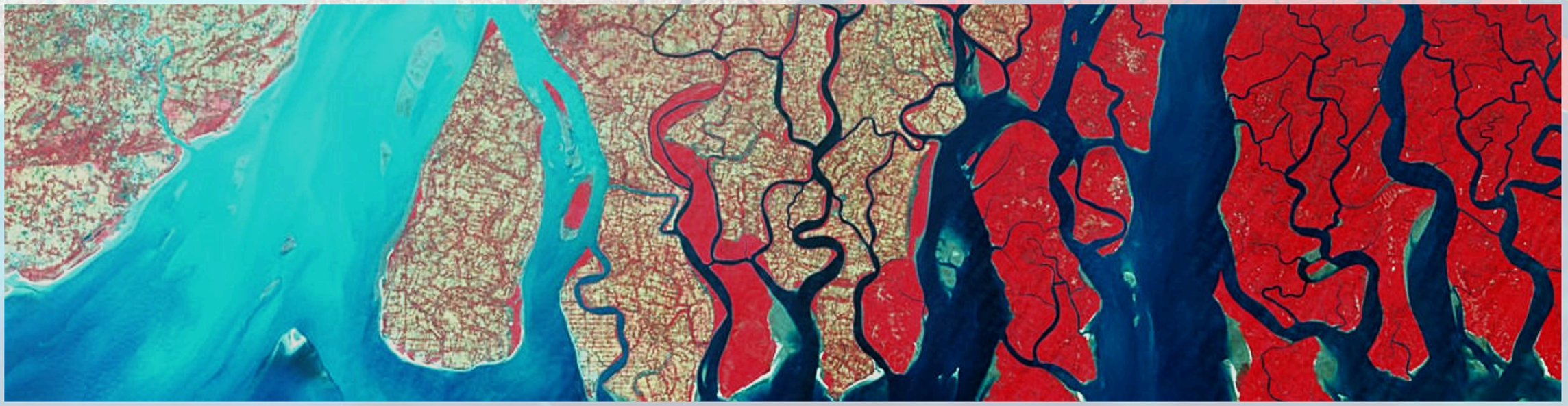
Practical Applications and Case Studies

Conducted by

Department of Geography

Scheduled from

19.03.2024 to 21.03.2024



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Tools and Techniques in Geomorphic Studies: Practical Applications and Case Studies

Introduction:

The Department of Geography at Netaji Satabarshiki Mahavidyalaya presents this innovative add-on course as a specialized platform for advanced learning in geomorphological studies. This meticulously crafted 40-hour program seamlessly blends classroom learning with intensive field training, offering students a unique opportunity to master both traditional and modern techniques in geomorphological analysis. The course stands out for its comprehensive approach, combining theoretical foundations with real-world applications in coastal geomorphology. Through expert-led sessions and hands-on field experience at the dynamic coastal environments of Sagar and Ghoramara Islands, students develop professional competency in field techniques, data collection, and environmental assessment. This course serves as a crucial stepping stone for students aspiring to excel in advanced geographical studies and research.

Objectives:

1) To develop comprehensive understanding of geomorphological processes through integrated theoretical and practical approaches, with special emphasis on coastal environments and their dynamics.
2) To build technical competency in modern geographical tools and techniques, including field survey instruments, GPS, and basic GIS applications, enabling students to conduct systematic landform analysis and mapping.
3) To enhance research capabilities through intensive field training in coastal environments, focusing on methodological aspects of data collection, documentation, and scientific interpretation of both physical and socio-economic phenomena.

Syllabus:

Unit I: Theoretical Component (18 Hours)

Module 1: Introduction to Geomorphic Studies (4 Hours)

1. Basic concepts and principles of geomorphology
2. Evolution of landforms and geological time scales
3. Factors influencing landform development
4. Introduction to coastal geomorphology

Module 2: Tools and Techniques in Geomorphological Analysis (6 Hours)

1. Traditional and modern surveying techniques
2. Remote sensing applications in geomorphology
3. GIS applications in landform analysis
4. GPS and its applications in field studies

Module 3: Coastal Processes and Landforms (4 Hours)

1. Coastal erosion and deposition processes
2. Types of coastal depositional landforms
3. Factors affecting coastal morphodynamics
4. Impact of sea-level changes on coastal areas

Module 4: Environmental and Socio-economic Aspects (4 Hours)

1. Human impact on coastal environments
2. Coastal zone management strategies
3. Livelihood patterns in coastal areas
4. Climate change impacts on coastal communities

Unit II: Practical and Field Training Component (18 Hours)

Module 1: Field Survey Techniques (6 Hours)

1. Hands-on training with surveying instruments
2. GPS handling and data collection
3. Field mapping techniques
4. Documentation and field photography
5. Sample collection methods

Module 2: Coastal Landform Analysis (6 Hours)

1. Identification and mapping of coastal features
2. Beach profile measurement
3. Coastal erosion assessment
4. Sediment sampling and analysis
5. Wave and tide observation techniques

Module 3: Socio-economic Survey and Analysis (6 Hours)

1. Village survey techniques
2. Livelihood pattern analysis
3. Coastal Impact assessment on local communities
4. Documentation of traditional coastal management practices &Case study preparation

Course Structure

Total Duration: 40 Hours

Core Teaching Hours: 18 Hours (Blended mode)
Field Training: 18 Hours
Evaluation: 4 Hours

Theory Assessment (50 Marks)

Multiple choice questions covering all theoretical modules
Focus on conceptual understanding and practical applications

Practical Assessment (50 Marks)

Field performance evaluation
Group discussion participation
Field report preparation and presentation
Practical skill assessment

Tools and Techniques in Geomorphic Studies: Practical Applications and Case Studies

Course Registration Details

Registration fees: **None**

Maximum number of seats available: **25**

Eligibility:

1) Open to all Third Semester and Fifth Semester Geography (Honours) students

2) Minimum 50% marks in previous semester examinations

3) Regular attendance record (minimum 75% in core courses)

4) Basic knowledge of geographical concepts and field techniques

5) Physical fitness for intensive field activities

Application Process:

- Submission of prescribed application form using the link: **https://forms.gle/9BKKXgNSEtpVRY5b9**
- Self-Attested copies of previous semester mark sheets
- Guardian's consent letter

Required Documents:

- Completed application form
- Recent passport-size photographs (2 copies)
- Previous semester Marksheet
- College ID proof

Important Dates:

- Application Opens: February 15, 2024
- Last Date for Submission: February 28, 2024
- Final Selection List: March 7, 2024
- Course Commencement: March 15, 2024

Resource Persons:

Internal

1) Dr.Dipanjan Das Majumdar
2) Mr. Samiran Sarkar
3) Ms. Sharmistha Chatterjee
4) Mr. Subrata Mitra
5) Ms. Taniya Debnath
6) Mr. Mrinmoy Biswas

External

1) Dr. Swagata Bera, Assistant Professor, Dum Dum Motijheel College, Kolkata
2) Mr. Sayan Mandal, Assistant Professor , Sarojini Naidu College for Women, Kolkata

For queries:

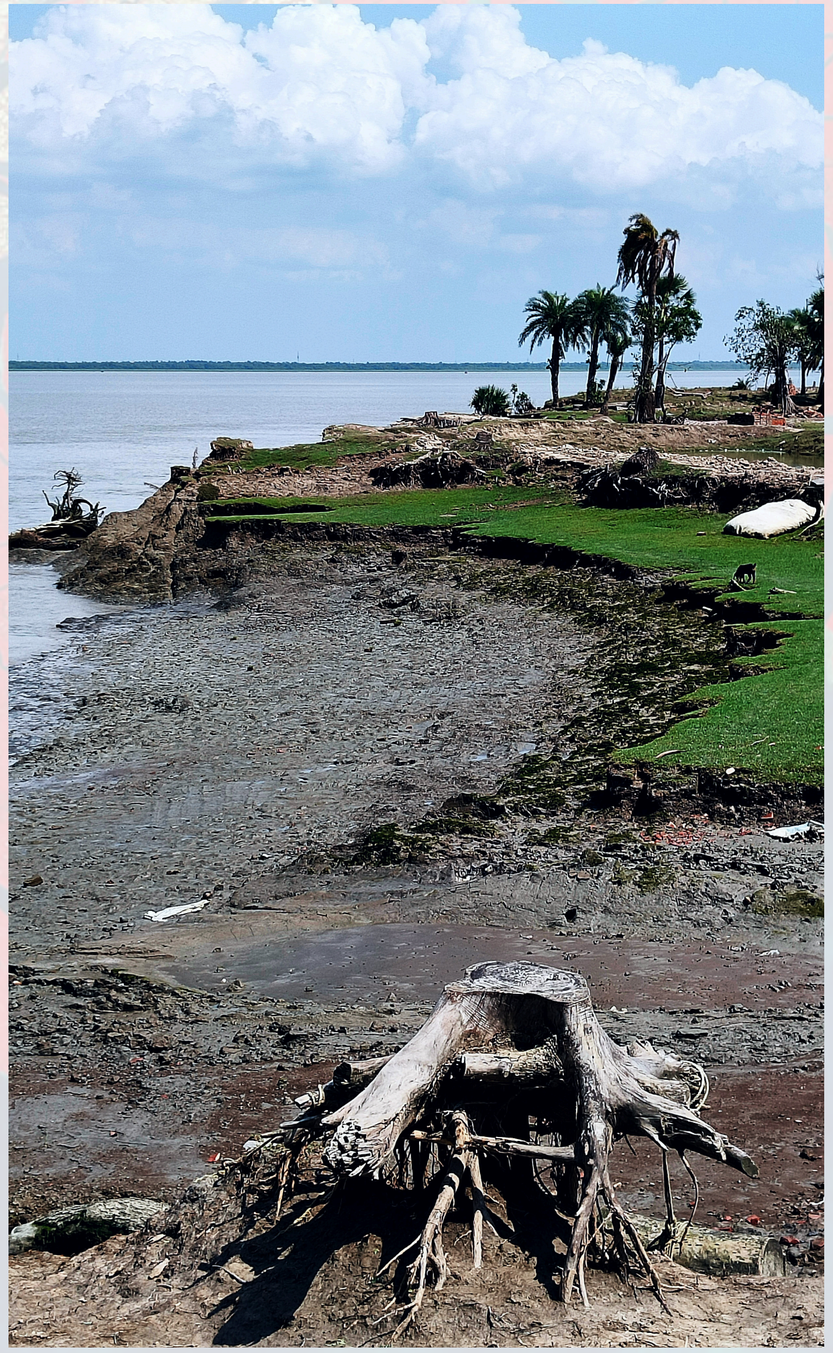
Contact: Dr. Dipanjan Das Majumdar, Course Coordinator and In-Charge, Department of Geography

Email: **nsmgeo.2000@gmail.com**

Room No: G3, Geography Laboratory

Time: 11 AM to 4 PM (Working Days)

** *Applications will be processed on a first-come-first-serve basis for eligible candidates.* **



Report on the Add-on Course in the Department of Geography, Netaji Satabarshiki Mahavidyalaya: Academic Session 2023-24

The Department of Geography at Netaji Satabarshiki Mahavidyalaya successfully conducted a specialized add-on course titled **"Tools and Techniques in Geomorphic Studies: Practical Applications and Case Studies"** from **March 15 to April 30, 2024**. This comprehensive report outlines the course structure, implementation, and outcomes, demonstrating its effectiveness in enhancing students' practical knowledge and research capabilities in geographical studies.

Course Overview and Implementation

The course was meticulously designed to provide students with both theoretical knowledge and practical field experience in geomorphological studies. The program attracted 23 participants and was structured as a 40-hour blended learning module. The curriculum was thoughtfully divided into three main components: 18 hours of direct classroom teaching, 18 hours of field training, and 4 hours dedicated to course evaluation, ensuring a well-rounded educational experience.

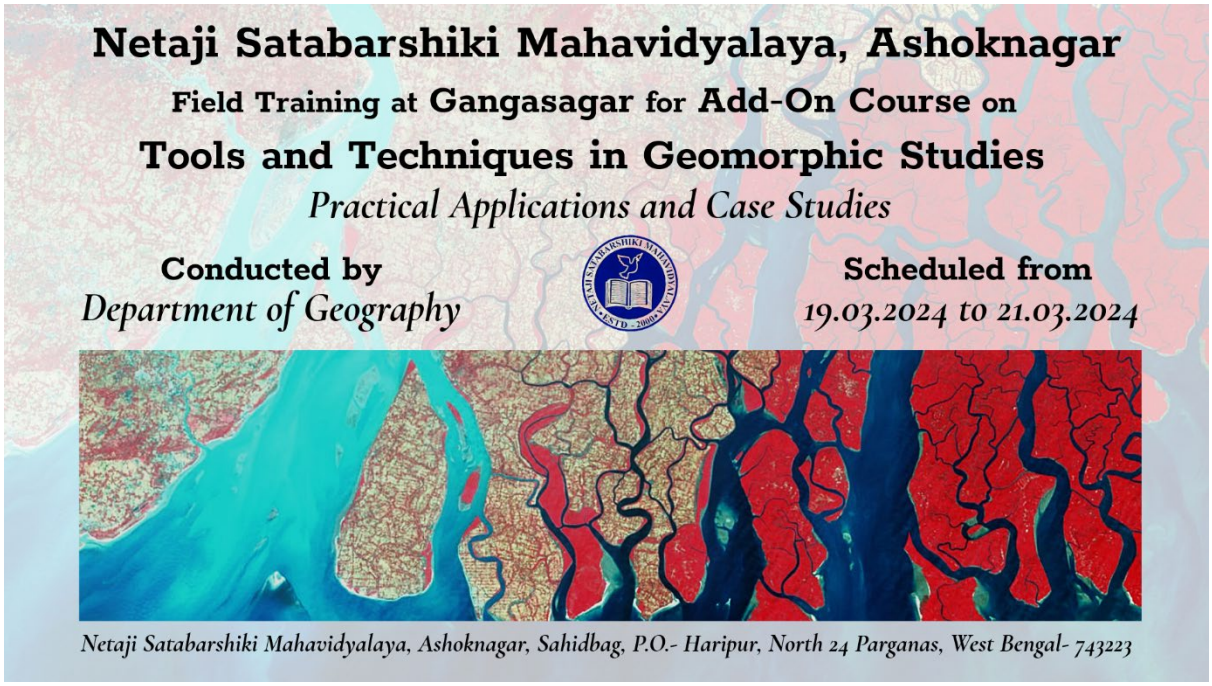
A significant highlight of the program was the incorporation of expert knowledge through special lectures. Two distinguished external experts, Dr. Swagata Bera from Dum Dum Motijheel College and Mr. Sayan Mandal from Sarojini Naidu College for Women, each conducted two-hour sessions. These collaborations were facilitated through existing Memorandums of Understanding (MOUs) from previous academic sessions, demonstrating the institution's commitment to maintaining strong academic networks.

Field Training Component

The field training component, conducted from March 19 to 21, 2024, took place at Sagar Island and Ghoramara Island in West Bengal. This practical exposure provided students with invaluable hands-on experience in monitoring and identifying coastal landform dynamics, studying coastal erosion patterns, and understanding coastal management strategies. Additionally, students gained insights into local livelihood patterns, integrating human geography aspects with physical geography studies.

Evaluation Methodology and Student Performance

The course employed a comprehensive evaluation system consisting of two components: a 50-mark multiple-choice examination testing theoretical knowledge, and a 50-mark assessment of



field performance and participation in group discussions. This balanced approach ensured that both theoretical understanding and practical application skills were adequately assessed.

The student performance analysis reveals impressive results. Out of 23 participants, 19 students achieved an 'A' grade or higher, with two students securing an A+ grade. The remaining four students received B grades, maintaining a satisfactory standard of performance. The highest combined score was 89 marks, achieved through exceptional performance in both theoretical and practical components.

Notable performance indicators include:

- Average examination score: 41.6 out of 50
- Average field performance score: 38.0 out of 50
- Overall pass rate: 100%
- A/A+ grade achievement rate: 82.6%

Student Achievement Analysis

The results demonstrate remarkable consistency in student performance across both theoretical and practical components. The field performance scores were particularly strong, with many students scoring above 35 out of 50, indicating successful achievement of the course's practical training objectives. The theoretical component scores also showed strong results, with several students scoring above 45 out of 50 in the multiple-choice examination.

Course Outcome

The successful completion of this add-on course represents a significant achievement in specialized geographical education. The high-performance metrics and positive outcomes validate the effectiveness of the blended learning approach and the integration of field studies with theoretical knowledge. The course has successfully fulfilled its objectives of enhancing students' specialized learning levels and providing them with practical exposure to geomorphological studies.

The strong academic performance across both theoretical and practical components suggests that the course structure and delivery methods were well-designed and effectively implemented. The inclusion of external expertise through special lectures added valuable perspectives and

enhanced the learning experience. The field training component particularly stood out as a crucial element in developing students' practical skills and understanding of real-world geographical phenomena.

This course serves as a model for future specialized geographical education programs, demonstrating the value of combining classroom learning with practical field experience and expert guidance. The high success rate and quality of student performance indicate that similar programs should be continued and potentially expanded in future academic sessions.


NETAJI SATABARSHIKI MAHAVIDYALAYA

CERTIFICATE OF COMPLETION

awarded to

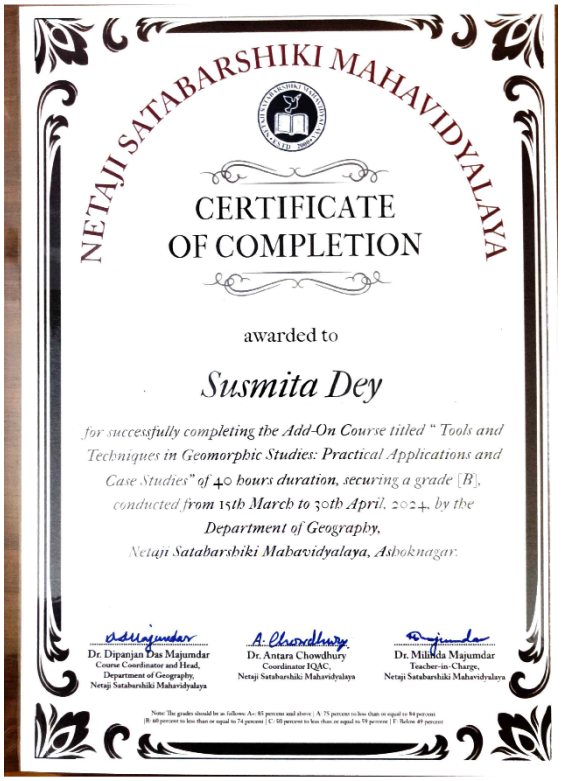
Reshma Sultana

for successfully completing the Add-On Course titled "Tools and Techniques in Geomorphic Studies: Practical Applications and Case Studies" of 40 hours duration, securing a grade [A], conducted from 15th March to 30th April, 2024, by the Department of Geography, Netaji Satabarshiki Mahavidyalaya, Ashoknagar.

Dr. Dipanjan Das Majumdar, Course Coordinator and Head, Department of Geography, Netaji Satabarshiki Mahavidyalaya

Dr. Antara Chowdhury, Coordinator IQAC, Netaji Satabarshiki Mahavidyalaya

Dr. Milinda Majumdar, Teacher-in-Charge, Netaji Satabarshiki Mahavidyalaya


NETAJI SATABARSHIKI MAHAVIDYALAYA

CERTIFICATE OF COMPLETION

awarded to

Susmita Dey

for successfully completing the Add-On Course titled "Tools and Techniques in Geomorphic Studies: Practical Applications and Case Studies" of 40 hours duration, securing a grade [B], conducted from 15th March to 30th April, 2024, by the Department of Geography, Netaji Satabarshiki Mahavidyalaya, Ashoknagar.

Dr. Dipanjan Das Majumdar, Course Coordinator and Head, Department of Geography, Netaji Satabarshiki Mahavidyalaya

Dr. Antara Chowdhury, Coordinator IQAC, Netaji Satabarshiki Mahavidyalaya

Dr. Milinda Majumdar, Teacher-in-Charge, Netaji Satabarshiki Mahavidyalaya