Syllabus for
Department of Geography and Environment
Jahangirnagar University

Master of Science in GIS for Environment and Development

Geography is one of the four early academic departments at Jahangirnagar University under the faculty of Social Sciences. The Department started its academic activities with a handful number of faculties and undergraduate students immediately after the independence of Bangladesh. Since then, the Department grew gradually and established itself at the forefront of higher learning institutions in the country.

Departing from the traditional geography, the department placed emphasis on the modern applied approaches in its academic curricula and research activities. This has attracted geographers from foreign university and different international links have been established through collaborative research and student exchange programs. Recently, the name of the department has been changed to Department of Geography and Environment in. In 1987, this department launches first academic course on GIS in the country. Later with the support from International Centre for Integrated Mountain Development (ICIMOD) the department helps to establish the GIS laboratory in Local Government and Engineering Department (LGED) in 1992 and also plays key role in using GIS and Remote Sensing application in research work with ISPAN (present day CEGIS) in early 1990s.

In 2016 the department started postgraduate degree in GIS for Environment and Development – first time of its kind in Bangladesh. This program provides the degree of **MS (Master of Science) in GIS for Environment and Development** for those who want to obtain extensive knowledge and skills to deal effectively with advanced issues in the Geo-spatial industry and academia.

Segment	Period	Length
Class weeks	1st Week~13th Week	13 Week
Preparatory Leave for Final Examination	14th Week	01 Week
Semester Final Examination	15th~16th Week	02 Week
	Total Length	16 Week

Facilities

The department has advanced GIS laboratory, Cartography and Geo-computing Laboratory (CGL), Physical Laboratory and Surveying equipments. The computers in all of the laboratories are equipped with a number of IBM compatible PCs and a host of peripherals and have software ARC/Info, ArcView, ArcGIS, QGIS, ERDAS Imagine, MultiSpec and other software for Geographic Information System (GIS). There is a physical geography laboratory for soil and geo-chemical analyses. The department has a small weather station and maintains daily records on rainfall, humidity and temperature which provide excellent opportunity for micro-climatic studies. Professor A F M Kamaluddin Memorial Library- department's own seminar library has a fairly good number of geographical books, journals and periodicals which along with the collections in the University central library serves the needs of students and researchers.

Credit Requirements

To obtain the degree of MS (Master of Science) in GIS for Environment and Development, a student has to complete 42 credit hours with a minimum CGPA of 2.5. All courses are in under broad three modules as below:

<table>
<tr><th rowspan="2">Pre-requisite Module</th><th colspan="3">Skill Development Module</th><th rowspan="2">Advanced Module</th><th rowspan="2">Dissertation</th><th rowspan="2">Total</th></tr>
<tr><th>Environmental Module</th><th>Development Module</th><th></th></tr>
<tr><td rowspan="4">5 courses (5 X 3 = 15 CrHr.)</td><td>3 courses (3 X 3 = 9 CrHr.)</td><td>1 course (1 X 3 = 3 CrHr.)</td><td rowspan="3">4 courses (4 X 3 = 12 CrHr.)</td><td rowspan="3">3 courses (3 X 3 = 9 CrHr.)</td><td rowspan="3">1 course (1 X 6 = 6 CrHr.)</td><td rowspan="3">42 CrHr.</td></tr>
<tr><td colspan="2">or</td></tr>
<tr><td>1 course (1 X 3 = 3 CrHr.)</td><td>3 courses (3 X 3 = 9 CrHr.)</td></tr>
</table>

However, a student may be exempted from taking a maximum of 2 (two) pre-requisite courses based on his/her Bachelor's academic record/transcript. A student may register a minimum of 2 courses (6 credit hours) and a maximum of 5 courses (15 credit hours) in a semester.

Grade point average (GPA) will be the weighted average of the grade points or score obtained in a course appeared by a student in a semester. The Cumulative Grade Point Average (CGPA) will be calculated considering all the grade point

earned by a student in different semester of his/her entire course duration. A sample breakdown of earned grade points or score by as student in a course could be as below:

Marks Range	Letter Grade	Grade Point
80% or above	A+	4.00
75% to <80%	A	3.75
70% to <75%	A-	3.50
65% to <70%	B+	3.25
60% to <65%	B	3.00
55% to <60%	B-	2.75
50% to <45%	C+	2.50
45% to <50%	C	2.25
40% to <45%	D	2.00
<40%	F	0
-	I	Incomplete

Student's course evaluations will be based on several components. The percentage of each component will contribute to the student's final grade. A sample is as below:

Course Evaluation	Marks Distribution
Class attendance	10
Tutorial	10
Project Work	20
Midterm	20
Semester Final	40
Total	100

Breakdown of class attendances is given below:

Percentage	Marks	Percentage	Marks
>=90	10	70-74	06
85-89	09	65-69	05
80-84	08	60-64	04
75-79	07	<60	00

Pre-requisite Module

Course Code	Course Title	Hrs/ Week	Credit Hrs.
MSGED 501	Introduction to Geography	3	3.00
MSGED 502	Principles of Environment	3	3.00
MSGED 503	Principles of Development	3	3.00
MSGED 504	Fundamentals of GIS	3	3.00
MSGED 505	Fundamentals of Remote Sensing	3	3.00
MSGED 506	Fundamentals of Photogrammetry	3	3.00
MSGED 507	Maps and Cartography	3	3.00
MSGED 508	Field Survey Techniques	3	3.00
MSGED 509	Satellite Navigation System	3	3.00
MSGED 510	Research Techniques	3	3.00

Skill Development Module

Course Code	Course Title	Hrs/ Week	Credit Hrs.
Environmental Module			
MSGED 511	Water Resources Planning and Management	3	3.00
MSGED 512	GIS in Disaster Risk Analysis and Management	3	3.00
MSGED 513	GIS in Environmental Conflict Management	3	3.00
MSGED 514	Environmental Policy and Management	3	3.00

MSGED 515	GIS and RS in Landscape Ecology	3	3.00
MSGED 516	GIS Applications in Agriculture	3	3.00
MSGED 517	GIS for Fisheries and Ocean Studies	3	3.00
MSGED 518	GIS for Wild Life Management	3	3.00
MSGED 519	GIS in Flood Plain and Watershed Management	3	3.00
MSGED 520	GIS and RS for River Morphology Study	3	3.00
Development Module			
MSGED 521	GIS Applications in Development	3	3.00
MSGED 522	GIS for Tourism Planning and Management	3	3.00
MSGED 523	Mapping of Food and Hunger	3	3.00
MSGED 524	GIS Applications in Transport Planning	3	3.00
MSGED 525	GIS Applications for Planners	3	3.00
MSGED 526	GIS for Public Health Management	3	3.00
MSGED 527	GIS in Climate Change and Sustainable Development	3	3.00
MSGED 528	GIS and RS for Rural Development Planning	3	3.00
MSGED 529	Environmental Economics, Law and Sustainability	3	3.00
MSGED 530	Urban Development, Planning and Management	3	3.00

Advanced Module

Course Code	Course Title	Hrs/ Week	Credit Hrs.
MSGED 531	Advanced Methods in GIS	3	3.00
MSGED 532	Advanced Methods in Remote Sensing	3	3.00
MSGED 533	Advanced Methods in Photogrammetry	3	3.00
MSGED 534	Advanced Geospatial Techniques	3	3.00
MSGED 535	Acquisition and Processing of RS Data	3	3.00
MSGED 536	Geo-statistics and Spatial Analysis	3	3.00
MSGED 537	Participatory GIS	3	3.00
MSGED 538	Thematic Mapping in GIS	3	3.00
MSGED 539	Geodiversity and Open Source GIS	3	3.00
MSGED 540	Programming and Web GIS	3	3.00

Course Curriculum

MSGED 501	**Introduction to Geography** As an introduction to geography, this course is designed to provide a survey of the different branches of geographic inquiry and thought to help students develop a critical awareness of the dynamic world in which we live, as well as to begin asking questions that seek to understand the spatial relationships between people, places, and the environment.
MSGED 502	**Principles of Environment** This environmental studies course is intended to introduce you to some of the basic principles in environmental studies, and how those are manifested in urban, rural and natural areas throughout the world. Through observation, discussion, and creation of digital content, you will explore and share environmental challenges facing your local environment and create a global learning and action community.
MSGED 503	**Principles of Development** Development Geography focuses on the background to, and processes of, economic, political, cultural and social change. The course will examine the history of development processes, the politics of development interventions, linkages between resources,

	environment and conflict in the developing world, and critical approaches to development.
MSGED 504	**Fundamentals of Geographic Information System (GIS)** Geographic Information Systems (GIS) deals with the development and utilization of maps and data. A GIS integrates the display capabilities of a computerized map with the information management tools of a database. This introductory course will include an overview of maps and computer systems, a look at models for attribute and spatial data, the organization of data in a GIS, how a GIS can be utilized, and future trends for this relatively new technology.
MSGED 505	**Fundamentals of Remote Sensing (RS)** This course introduces the principles lying behind remote sensing, concentrating on space-borne platforms. The fundamentals of electro-magnetic (EM) radiation are explained, as are its interactions with Earth's surface and atmosphere. The course goes on to examine sensor characteristics, satellite orbits and various current and future missions involving a range of sensors across the visible, radar and microwave components of the spectrum. When dealing with images, the skills of image processing are used to extract meaning and interpretation from the spatial relationships of data, and the basics of image processing are also taught.
MSGED 506	**Fundamentals of Photogrammetry** The objective of the Photogrammetry course is to acquire a basic understanding of mapping and geopositioning techniques using imagery from aerial, satellite, and terrestrial platforms.
MSGED 507	**Maps and Cartography** The main focus of the course is applied, advanced cartography. This entails in-depth understanding of fonts, color and symbols, as well as corresponding practical applications in GIS in terms of labeling techniques, color choice and symbolization. Theoretical and critical views of GIS as a tool, as well as maps as purveyors of information, are also given attention. Furthermore, the course provides an introduction to the post-processing of maps in raster and vector graphic editing environments (Adobe Photoshop and Adobe Illustrator, respectively).

MSGED 508	**Field Survey Techniques** This course will focus on the various means, tools, and resources geographers employ to gather data in the field. Rather than maintain the traditional lecture style format, the course will be taught in mainly a 'hands on' learning fashion. Students should expect to become familiarized, and proficient in some cases, with a variety of instruments that allow for data collection in a geospatial manner. Students will start out learning of pre-existing geographic data sets, and how these can help in setting up a field data collection scheme. They will also learn about projections and coordinate systems, and how this relates to both data collection and navigation in the field. The course will then move into actual data collection in the field, using both current and traditional forms of technology.
MSGED 509	**Satellite Navigation System** Theoretical and practical basics of satellite based positioning using global navigation satellite systems. The course will discuss about the estimation and representation of satellite orbits, geodetic reference systems and time systems, satellite signals and error sources, Applications of global navigation satellite systems its role in sustainable development.
MSGED 510	**Research Techniques** This course will focus on various Research methods: normative method, experimental method, historical method, genetic method, comparative method, questionnaire method and others, concept building, data sources, building up of bibliography. Also Quantitative and Qualitative Research Techniques will be learned.

Skill Development Module (Environment Module)	
MSGED 511	**Water Resources Planning and Management** This course will provide the student an introduction to the planning, design, and operation of water resources systems using mathematical optimization methods and models. The student will learn to apply basic economic analysis (engineering economic and microeconomic analysis) and operations research techniques (linear,

	nonlinear and dynamic programming, and combinatorial optimization) and will apply them to various surface and ground water resource allocation problems.
MSGED 512	**GIS in Disaster Risk Analysis and Management** This course is designed to equip students with a foundational understanding of the physical processes and statistical principles that govern the occurrence of natural hazards. Emphasis is placed on analyzing hazard characteristics—such as magnitude and frequency—using appropriate probability distributions. A core focus of the course is the practical application of Geographic Information Systems (GIS), remote sensing, and spatial analysis in assessing, planning for, and managing disaster risk. Students will gain the skills needed to support real-time decision-making and enhance disaster resilience through geospatial technologies. Upon successful completion of this course, students will be able to: Demonstrate a comprehensive understanding of the physical dynamics and statistical models underlying natural hazards. Evaluate hazard risk using magnitude-frequency analysis and relevant probability distribution models. Employ GIS and remote sensing techniques to map hazard-prone areas and conduct multi-hazard risk assessments. Apply spatial analysis tools to support real-time disaster monitoring, early warning systems, and emergency response planning. Critically assess the role of geospatial technologies in disaster risk reduction, climate adaptation, and informed policy-making.
MSGED 513	**GIS in Environmental Conflict Management** This course aims to provide students with an in-depth understanding of the complex relationships between environmental change, natural resource management, and conflict. It explores how environmental stressors—such as resource scarcity, climate change, and ecological degradation—can act as catalysts for conflict and insecurity. Emphasis is placed on the application of Geographic Information Systems (GIS) as a critical tool for analyzing, visualizing, and managing environmental conflicts. Through a combination of theoretical frameworks, case studies, and practical

	GIS applications, students will engage with contemporary challenges and evaluate strategies for conflict prevention, resolution, and sustainable peacebuilding.
MSGED 514	**Environmental Policy and Management** The course focuses on analysis and evaluation of environmental/ international environmental policy (theory and practice) through in-depth case studies. Based on this the course will be later focus to develop a knowledge of the Earth's natural systems and the effects of human activity on these systems and think about important environmental problems.
MSGED 515	**GIS and RS in Landscape Ecology** This course will consider the critical role of GIS and RS in landscape ecology analysis which plays in shaping the interactions among species and the dynamics of ecosystems. Landscape Ecology has risen in importance as ecologists have recognized how important spatial processes are to population dynamics, community assembly, and ecosystem functions. Space also matters critically to conservation of species and biodiversity, and to the myriad ways that people interact with nature.
MSGED 516	**GIS Application in Agriculture** The course will focus on the principles and application of Geographic Information Systems (GIS) technologies with emphasis on the use of GIS for collecting, storing and analyzing spatial data associated with agricultural and natural resource-based enterprises. GIS software techniques are developed using an interactive/inductive learning process. Students will collect and analyze data to complete a research project using GIS to answer questions related to an agricultural or natural resources topic.
MSGED 517	**GIS for Fisheries and Ocean Studies** The course will focus on the applications of GIS and RS technologies in fisheries resource management and the study of oceans. Fisheries management and planning has many spatial components where GIS can play a vital role. On the other hand, the

	course will also deal with the bathymetric and spatial distributional pattern analysis of oceans which is crucial in resource management.
MSGED 518	**GIS for Wildlife Management** Geographic Information Systems (GIS) are applied very often in wildlife ecology, conservation, and management issues. The goal of this course is to give students a general background of the most common GIS tasks and analyses used in wildlife ecology, conservation and management; and familiarize students with different software used to perform those tasks and analyses.
MSGED 519	**GIS in Flood Plain and Watershed Management** After completion this course the students will be able to know the formation processes, types, geometry of floodplain. Also, they will learn the how to Integrate GIS and RS technology to model the floodplain sedimentation and resource management.
MSGED 520	**GIS and RS for River Morphology Study** This course will use the modern art of GIS and RS in river morphological study. It will include the analysis of channel morphometry, drainage basin and river dynamics. Changes of river courses and prediction of channel shifting study will be a crucial part of this study.

Skill Development Module (Development Module)	
MSGED 521	**GIS Applications in Development** On successful completion of this course students will be able to understand how GIS is currently used in Development and management sector. Students will be able to apply their knowledge of GIS tools and software to real life situations.
MSGED 522	**GIS for Tourism Planning and Management** In this course the student will explore theoretical and practical concepts of sustainable tourism planning and how tourism can be planned using a GIS. Furthermore, a simplified Tourism Decision

	Support System (TDSS) will be explored and how such a system can be linked to a GIS. This course includes practical and theoretical exercises regarding categorization of sensitivity for land exposed to tourism and how measurements regarding tourism impact can be measured in field and be analyzed and visualized in a GIS.
MSGED 523	**Mapping of Food and Hunger** This course examines the nature of poverty, food security and hunger at both the local and global levels. In so doing, it explores the nature of international development more broadly and its relevance to students studying a wide range of disciplines. It aims to provide students with the basic concepts and analytical tools required to reflect critically on international development issues in the world today and how global poverty, food insecurity and hunger might be alleviated.
MSGED 524	**GIS Applications in Transport Planning** This course covers the applications of GIS to transportation. Its primary goal is to help students understand the basic principles of geographical information science for transportation, and to equip students with the state-of-the practice computing technology for transportation planning in a GIS environment.
MSGED 525	**GIS Applications for Planners** This course will provide a broad overview of development and environment issues facing the world today. Specifically, it will cover the use, application, and representation of geographic data for decision making. Students will learn about key actors, study specific development and environment topics, consider debates over how to approach those challenges, and both study and experience some of the potential solutions. The course is designed for students interested in the theoretical foundations, historical developments, and practical applications of spatial analysis.
MSGED 526	**GIS for Public Health Management** This course covers applications of GIS in public health and describes how these tools can be used to explore connections between people, their dynamic physical and social environments, and their health. The materials covered will provide an introduction to geographic methods, GIS tools and a unique framework from

	which to understand health outcomes and develop public health strategies to reduce disease and improve the public's health.
MSGED 527	**GIS in Climate Change and Sustainable Development** The course will focus on how to analyze consequences of climate change, such as rising sea levels, increased intensity of torrential rain fall and rapid snow melt using GIS and how GIS can be utilized to estimate the impact on environment and society. It provides the student with necessary tools to conduct analysis aiming to mitigate consequences and for sustainable development.
MSGED 528	**GIS and RS for Rural Development Planning** This course will contribute to the applications of GIS and RS in understanding of the development processes of rural areas, and the increase and effectiveness of the possible interventions.
MSGED 529	**Environmental Economics, Law and Sustainability** The course will be structured International environmental rule-making, including compliance and enforcement, International environmental principles, Human rights and environmental protection, International and EU climate law, including the choice of the right, regulatory instruments to steer citizen & business behavior.
MSGED 530	**Urban Development, Planning and Management** This course will contribute to the understanding of the cutting edge conceptual debates in global urban development theory and practice, by exploring analytical approaches and relating these to operational frameworks for policy, planning and management to promote more equitable and sustainable urban development.

Advanced Module	
MSGED 531	**Advanced Methods in GIS** This course covers topics related to a set of advanced techniques and applications of GIS. The lectures discuss both conceptual and technical issues in GIS, including object-based vector models, automated data-processing and programming, structured

	query language, georeferencing, spatial interpolation, spatial measurement and pattern analysis, network analysis, mobile GIS, and open GIS.
MSGED 532	**Advanced Methods in Remote Sensing** After the course, students should be able to understand sophisticated techniques for acquiring remotely sensed data, to apply advanced methods for image processing and analysis, and to use remotely sensed data for various applications such as planning, environmental monitoring and natural resource management.
MSGED 533	**Advanced Methods in Photogrammetry** The course will include the procedures and methods used for deriving metric information from photographs, analog processes for using aerial photographs in production of topographic maps, flight planning, and cost estimation in aerial mapping work. Introduction to photo-coordinate measurement devices and their calibration and the mathematics of modern Photogrammetry will be discussed.
MSGED 534	**Advanced Geospatial Techniques** The term Geospatial technology is an umbrella phrase associated with a range of various technologies which include remote sensing, Global Positioning System (GPS), Geographic Information System (GIS), information technologies, and field sensors, that are intended to facilitate the process of capturing/ storing/ processing/ displaying/ disseminating information tied to a particular location. This present course curriculum offers an opportunity for the students to understand the basics of geospatial technology for developing an interest in the principles, practical uses, and resources related to geospatial technologies.
MSGED 535	**Acquisition and Processing of RS Data** The focus of this course will be to demonstrate and teach students how to process remote sensing images and extract/employ remote sensing information in environment and natural resources.
MSGED 536	**Geostatistics and Spatial Analysis** Statistical tools allow us to go beyond merely visual analysis of maps. This course will help to analyze the spatial distributions and trends in data. The course will also focus on the spatial distributional analysis using continuous and non-continuous data and the interpolation of spatial data.
MSGED 537	**Participatory GIS**

	Participatory GIS method will integrate people, geographic information representations, exploratory tools and structured discussion in order to synergize knowledge, expertise, and experience of multiple stakeholders. This course will provide a setting to discuss the motivations, development, and use of collaborative, participatory, and public participation geographic information systems in land use, transportation and water resource planning and other decision-making.
MSGED 538	**Thematic Mapping in GIS** This course explores how people represent the world with maps and GIS. It trains students in map use for particular problems. It helps map readers better determine quality, usefulness, and representation of information. The course begins with an introduction to computer-based analysis of spatial data, utilizing vector data in GIS. The course covers theoretical and applied cartography, as well as basic thematic analyses of spatial data derived from existing databases.
MSGED 539	**Geodiversity and Open Source GIS** The course will focus on the concept of geodiversity and the consequences of geodiversity on earth materials, processes and landforms. The course is designed to explore the potentiality of Open source GIS software for geodata processing and analysis.
MSGED 540	**Programming and Web GIS** This course is designed as an introduction to Web GIS, to the programming concepts underlying construction and implementation of high quality web mapping applications. The course will mainly focus on commonly used GIS software and related programming tools for customizing web-based mapping applications, and development of distributed web services for GIS.

Research Project

Course Code	Course Title	Credit Hrs.
MSGED 541	**Research Project**	Credit:6

Faculty Member
Professor:

Dr. Md. Manzurul Hassan
MSc (JU), MA, PhD (Durham, UK)

GIS, Health, Medical Waste Management

E-mail: manzurulh@juniv.edu

Dr. Md. Shahedur Rashid
MSc (JU), MA, PhD (Durham, UK)

GIS, Remote Sensing, Environment, Development, Planning, Land Recourses Management

E-mail: m.s.rashid@juniv.edu

Dr. M. Nazrul Islam
MSc (JU), PhD (Hull, UK)

Environmental Management, Water Recourses Management, Disaster and Risk Assessment, Fluvial Geomorphology

E-mail: mnislam.geo@juniv.edu

Dr. K M Shariful Huda
MSc (JU), MA, PhD (Durham, UK)

Water Recourses Management, Climate Change, Gender, Disaster, GIS and Remote Sensing

E-mail: kmshuda@juniv.edu

Dr. Mohammad Nayeem Aziz Ansari
MSc (JU), MSc (SLU, Sweden), PhD (Durham, UK)

Food and Livelihood Security, Geography of Development, PGIS and Research Methodology.

E-mail: ansari@juniv.edu

Dr. Md. Nurul Islam
MSc (JU), PhD (Nottingham, UK)

Climate Change and Floodplains Environmental Management

E-mail: nislamju@juniv.edu

Dr. Md. Mizanur Rahman
MSc (JU), MSc (Wageningen, The Netherlands), PhD (Durham, UK)

Urban Environment, Sanitation

E-mail: m.m.rahman@juniv.edu

Dr. Md. Nazrul Islam
MSc (JU), PhD (University of Tokyo, Japan) JSPS Two Years Postdoc (University of Tokyo) Aquatic Ecosystem Modeling Environmental System Analysis (ESA) Climate Change, Disaster and Risk Modeling.

E-mail: nazrul_geo@juniv.edu

Dr. Ubaydur Rahaman Siddiki
MSc (JU), M. Sc (Netherlands), PhD (University of Canberra, Australia) Policy Analysis and Evaluation (Environmental Policy and Governments), Climate Change, Disaster Management (Disaster Risk Reduction, analysis and Management)

E-mail: ursgeo@juniv.edu

Dr. Ummeh Saika
MSc (JU), PhD (TMU, Japan)

Urban Environment and Green Space Analysis, PGIS, Water Analysis

E-mail: usaikau@juniv.edu

Dr. Khandakar Hasan Mahmud
MSc (JU), M. Env. (Manitoba, Canada) PhD (JU)
Environmental Hazard and Risk Mapping, Cartography and GIS, GIS Programming, H-GIS

E-mail: khmmahmud@juniv.edu

Dr. Nahreen Islam Khan

MSc (JU), MS (Freiburg, Germany) PhD (Marburg, Germany) Environment Conflict Management, Environmental Policy Analysis and Gender Geography

E-mail: nahreen@juniv.edu

Professor:

Dr. Tanjinul Hoque Mollah
MSc (JU), PhD (Hokkaido University, Japan)
GCM, PSDM GIS, Remote Sensing, GIS, LCM, CA-Markov model, Agriculture Geography.
E-mail: emonju34@gmail.com

Faculty Member
Associate Professor:

Mr. Rezaul Roni
MSc (JU), MBA (BUP), MSc (ITC, The Netherlands)
Population Study, Geomatics Applications
E-mail: georoni31@juniv.edu

Dr. Raunaq Jahan (on leave)
MSc (JU), MS (Lund University, Sweden) PhD (Hamburg University, Germany)
Physical Geography, Ecosystem Analysis and GIS
E-mail: raunaqjahan@juniv.edu

Dr. Bibi Hafsa
MSc (JU), PhD (JU)
Geomorphology, H-GIS, Morphology, Geo-spatial analysis.
E-mail: hafsa@juniv.edu

Dr. Md. Anarul Haque Mondol
MSc (JU), PhD (Monash University, Australia)
Agro-meteorology, Technological Drought and Water Scarcity, Climate Change and Sustainable Development
E-mail: anarul@juniv.edu

Muhammad Rezaul Rakib (on leave)
MSc (JU), MSc (Hull, UK)
Flood Modelling, Fluvial Geomorphology and Disaster Risk Management

Mehedi Iqbal (on leave)
MSc (JU),
River Morphology, GIS and Remote Sensing Applications
E-mail: israrju@gmail.com

Ebadullah Khan
MSc (JU), MSc (ITC, University of Twente, The Netherlands)
Natural Resources Management, Application of Geo-information Science.
E-mail: ekhan@juniv.edu

Dr. Md. Alamgir Hossen Bhuiyan
MSc (JU), PhD (Hokkaido University, Japan)
Urban informatics, Urban Ecosystem, Environment, GIS and Remote Sensing
E-mail: alamgirju@juniv.edu

Assistant Professor:

Dr. Irtifa Alam Nabila
MSc (JU), PhD (Hokkaido University, Japan)

Wetland Vegetation, Ecosystem Disturbances, Conservation, DRR, GIS & Remote Sensing.

E-mail: irtifa.nabila@juniv.edu

Lecturer:

Ms. Jannatun Hussna Tuya
MSc (JU),

Disaster Management, Vulnerability and Resilience, Spatial Analysis, GIS and Remote Sensing

E-mail: jannatuntuya@juniv.edu

Md. Ashraful Habib (on leave)
MSc (JU),

GIS and Remote Sensing, SDGs, Blue Economy

E-mail: m.a.habib@juniv.edu