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# Collaborations

# Collaborative Research work of Department of Geography, Gargaon College with D.K.D College, B.P.Chaliha College, D.H.S.K College & Dibrugarh University, Assam

Modeling Earth Systems and Environment  
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ORIGINAL ARTICLE



## Understanding the influence of traffic volume on RST (road surface temperature) in Dibrugarh city of India

Rituraj Neog<sup>1</sup> · Priti Gogoi<sup>2</sup> · Biman Lahkar<sup>3</sup> · Juri Baruah<sup>4</sup> · Arundhati Phukan<sup>5</sup>

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### Abstract

The basic objective of the study is to analyze the potential role of traffic and transportation volume on RST (road surface temperature) in the streets of Dibrugarh city. Additionally, the study evaluates the role of meteorological parameters on RST of the city. The experiment is accomplished by field measurement using HTC Non-contact IR thermometer over 11 selected streets of Dibrugarh city of Assam for a period of 4 months (August to November 2019). Diurnally, maximum RST is recorded in the mid-afternoon period (1.30–2.00 pm) in the month August and September. But interestingly, peak RST has been noticed in the late morning phase (11.30–12.00 pm) in the subsequent months of October and November. Seasonally, Monsoon acquires maximum positive growth of RST till mid-afternoon and rapid negative growth in the later periods. But post-monsoon reveals negative growth of RST since morning period. The study also found a varying degree of coefficient of correlation between traffic volume and mean RST. The degree of correlation is found as moderately positive in the morning and afternoon episodes during August. While September encountered moderately positive correlation only during afternoon and weaker towards the later part. Evidently, October maintains moderately strong correlation in the morning and evening sections, whereas stronger positive towards the later periods. And finally, November surprisingly displayed weak positive correlation in the morning periods to negative correlation in the successive episodes. Meteorologically, air temperature and relative humidity evidenced strong correlation with RST. Air temperature and RST accounted for a strong positive correlation with  $r$  value of 0.80 and 0.77 in monsoon and post-monsoon season, respectively. While relative humidity dominates strong negative correlation with RST with  $r$  value of  $-0.80$  and  $-0.55$ . Therefore, maximum traffic volume with higher air temperature and lower relative humidity is chiefly accountable for development of RST.

**Keywords** RST · Traffic volume · Air temperature · Relative humidity · Correlation

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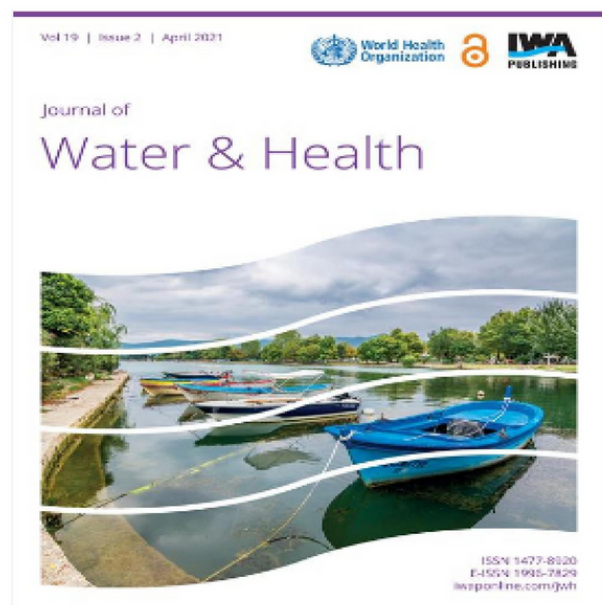
### Introduction

The study of road surface temperature (RST) in urban areas has become an integral part to deal with the effects and magnitude of urban heat island, especially for surface heat intensity. Furthermore, RST is useful procedure to predict and detect of the spatial pattern of nocturnal RST over an area (Thornes 1991) and developing thermal mapping of the urban areas. Such thermal mapping using RST data were initially used for detection of cold section of the road surface for deicing policies (Chapman and Thornes 2005). Nowadays, thermal mapping is also used as valuable tool for road weather forecasting and in maintenance of winter road (Todeschini et al. 2016). In addition to these, the thermal mapping is also used to spot the distinctiveness of RST distribution on individual routes. The results of such mapping also help to understand the segment differences

# Collaborative research activities between Gargaon College with Sipajhar College & Tezpur University, Assam

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**Editorial**

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### Nature of sorption of trivalent arsenic on novel iron oxyhydroxide stabilized starch/OMMT composite: A mechanistic approach

P. Gogoi, M. Das, P. Begum and T. K. Maji

#### ABSTRACT

Materials which are chemically, energetically and operationally acceptable for arsenic water treatment are highly required. In this study a hybrid material (SICC) of aminated starch, oxyhydroxide of iron and OMMT clay has been demonstrated for arsenic treatment. This new material was highly efficient in arsenic water treatment which could reduce arsenic concentration far below detection limits. All binding interactions during material preparation and arsenic sorption were exclusively characterized with FT-IR, XRD and other spectroscopic tools. A molecular modeling on the basis of density functional theory was carried out to verify the above findings. Influence of material dose, treatment time, initial ion concentration, varying temperatures, etc., on extent of sorption was studied in detail. The thermodynamic parameters viz.  $\Delta G$  ( $-11$  kJ/mol),  $\Delta H$  (42.48 kJ/mol),  $\Delta S$  ( $177.6$  J K $^{-1}$  mol $^{-1}$ ) and  $E$  (59.16 kJ/mol) determined the feasibility of the process, its endothermic behavior and most importantly the chemical nature of the sorption accompanied by ion-exchange to some extent. The sorption followed a monolayer chemisorption pattern as determined by the Langmuir model ( $R^2 = 0.973$ ,  $R L = 0.081$ ) with a  $Q_{max} = 2.04$  at 303 K. The binding of As(III) on the material was governed by a pseudo second order kinetic model.

**Key words** | chemisorption, endothermic, feasibility, hybrid material, molecular modeling

#### HIGHLIGHTS

- Properties of the hybrid material were enhanced synergistically.
- Suspended materials were negligibly small in hybrid material.
- Material with 10% clay loading accompanied by Iron(III) oxyhydroxide stabilization was found best in all respects.
- Arsenic on SICC was predominantly chemisorbed accompanied by ion exchange to some extent.
- The sorption process was spontaneous and endothermic in nature.

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# Collaborative research between Gargaon College with Dibrugarh University and Assam Agricultural University

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## Exponential Smoothing State Space Innovation Model for Forecasting Road Accident Deaths in India

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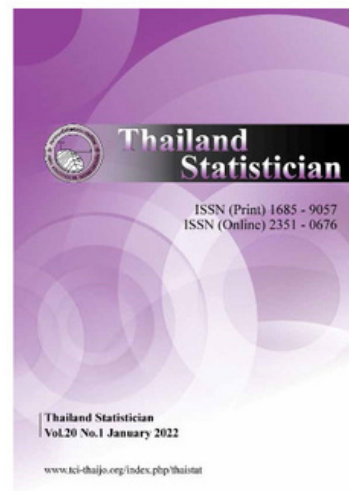
### Arnab Narayan Patowary

College of Fisheries, Assam Agricultural University, Raha, Assam, India

**Keywords:** Akaike information criteria, Kolmogorov-Smirnov test, mean absolute percentage error, mean absolute scaled error

### Abstract

Nowadays, road traffic accident increases day by day and becomes



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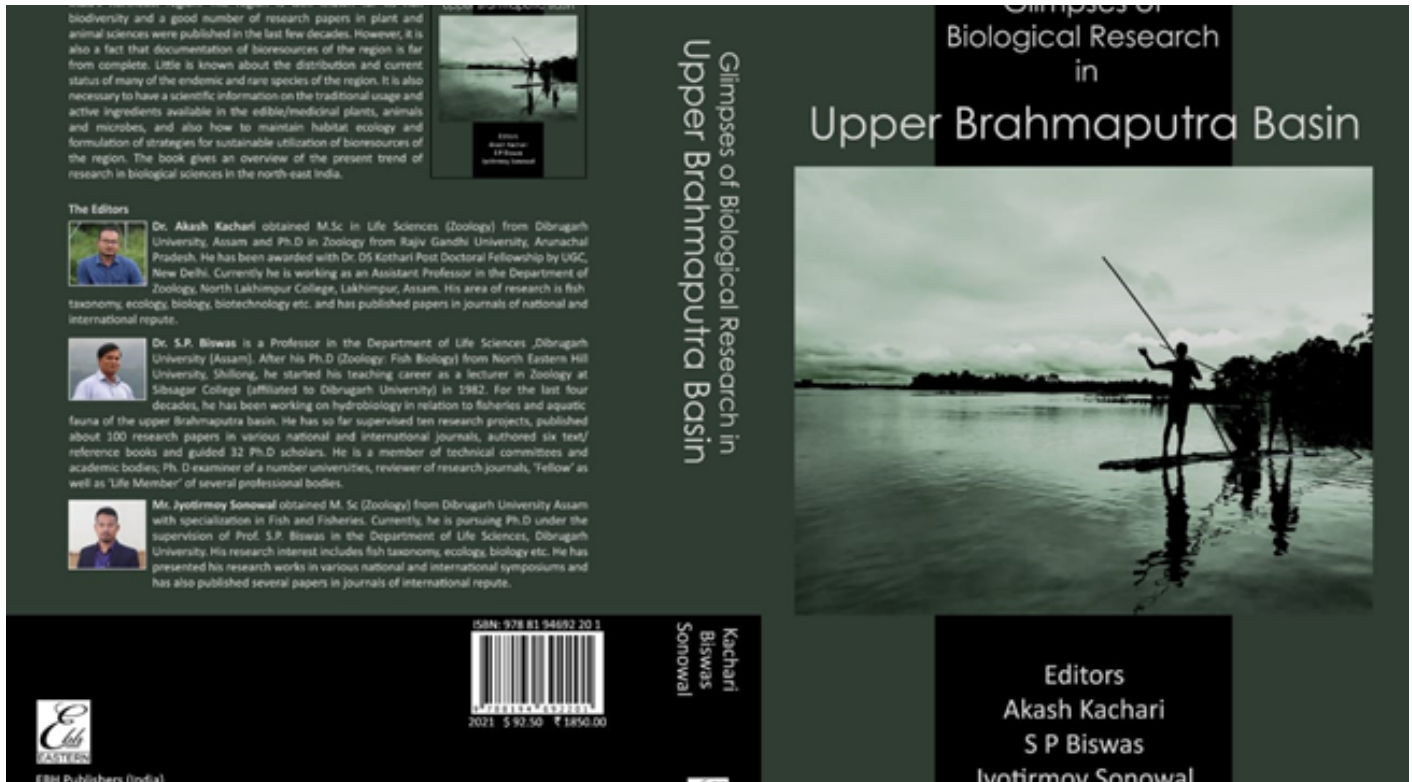
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## Aquafarming Scope in Arunachal-Assam Border: An Exploration in the Foothill Wetlands

*Budhin Gogoi  
Rashmi Dutta  
Vivekanand Safi  
Debangshu Narayan Das*

### Abstract

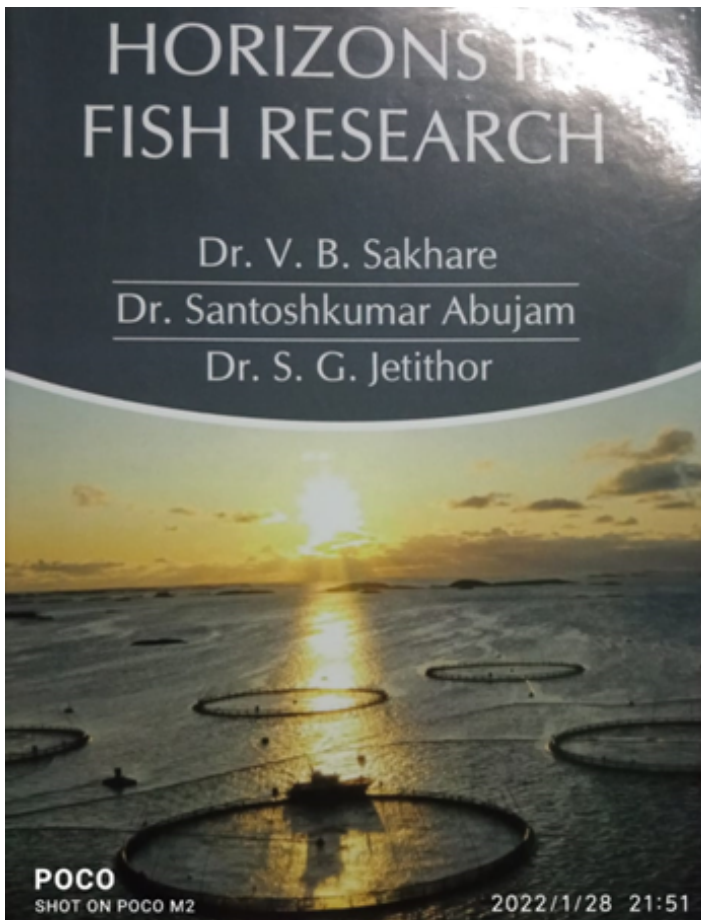
Physico-chemical parameters viz. and the plankton community in the wetlands were analyzed for two years to delineate the possibility and potentiality of resource utilization for aquaculture productivity. A total of 64 genera of phytoplankton and 51 genera of zooplankton were identified in the wetlands. The livelihood issue is a great challenge on the available land resource, as more than 70% of the population relied on agricultural production. This paper is aimed to focus on the status of wetland and possibilities of resource utilization for socio-economic development of both the state.

**Keywords:** Aquaculture, fishery, plankton, water quality, wetland.

### Introduction

Wetland bears immense production potentials because of its wide ranges of resources, ecological niches, nutrient status, and carrying capacity. These are the most productive ecosystems in terms of nutrient recycling and storage, plant and animal harvest, and species conservation (Lampert and Sommer, 2007; Mitsch *et*

# Collaborative research between Gargaon College and Rajiv Gandhi University, Arunachal Pradesh



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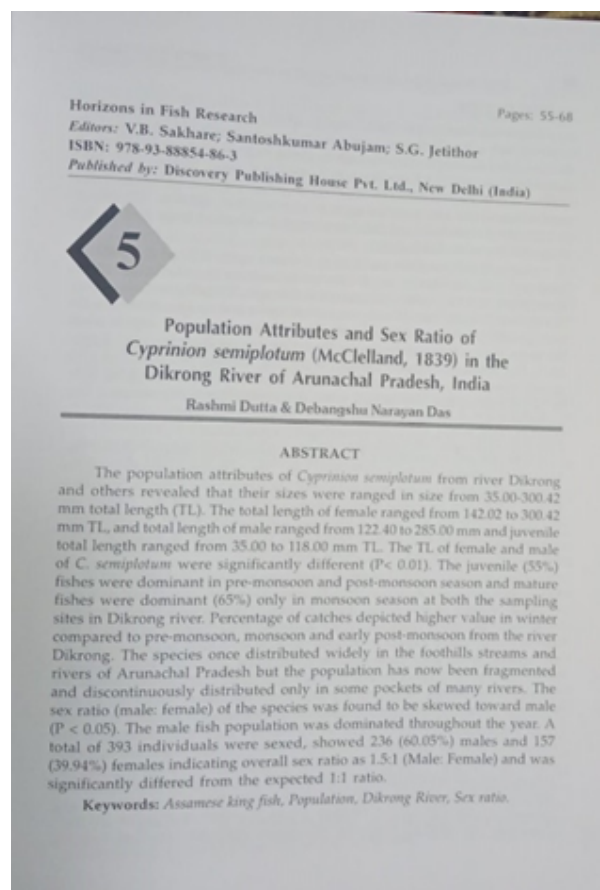
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CHAPTER

## Counterbalancing common explosive pollutants (TNT, RDX, and HMX) in the environment by microbial degradation

# 13

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### 13.1 Introduction

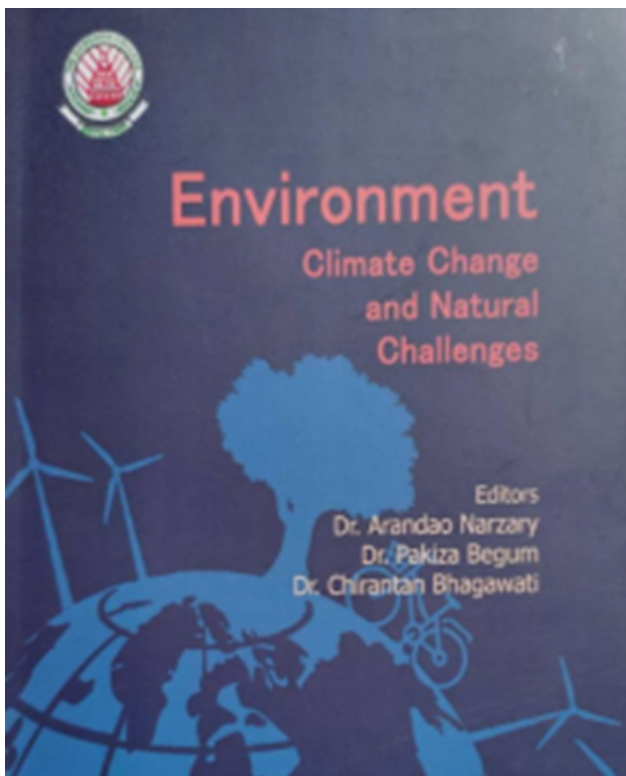
The survival and quality of different life forms on the planet earth inevitably depend on the overall quality of the environment in which it exists. With advancements in science and technology, several environmental problems have arisen due to synthetic processes' interference with the natural phenomenon. The massive deployment of natural resources and industrial synthesis of many chemicals has led to incorporating different synthesized compounds into ongoing biological cycles. Large-scale manufacture, use, and disposal of synthesized chemicals such as insecticides, plasticizers, dyes, drugs, detergents, turn up as a significant cause of environmental contamination. The number of contaminants existing in the current environment is enormous, and the majority of these arise from various processes and materials used in modern-day industrial activities. Most of them are toxic and mutagenic to humans and other life forms. Their unplanned intrusion into ecosystems is a serious threat to various life forms, causing severe ecological problems. The health and ecological threats caused by these human-made contaminants are grave concerns and have led to various studies on the remediation strategies of these common xenobiotic compounds.

Among the environmental contaminants, explosives waste generated from the use and dissemination of common military explosives is severely toxic. World War I and II saw a massive increase in explosive production worldwide, which continued after the war. Over the next 50 years, their production rates in many countries increased exponentially. Consequently, these extensive usages with improper handling and disposal techniques led to severe contamination of soil, surface, and groundwater to the levels that threaten the existence and quality of life forms.

\* These authors contributed equally toward this work.



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## Phytochemistry of *Dioscorea alata*: A Review

Sandeepa Agarwalla<sup>1</sup>, Dipika Rajput<sup>2</sup>, Dimbestwar Das<sup>3</sup>

### Abstract

Dietary plants are traditionally used as medicine from ancient to modern times all over the world and Assam is no exception. The purpose of this study is to evaluate the phytoconstituents of *Dioscorea alata* tuber locally called kark also (Tatarum). It is one of the widely consumed tuber crops. Certain phytoconstituents present in *D. alata* includes saponins, flavonoids, terpenoids, diogenin etc. Diogenin extracted from the tubers is used as precursors for the synthesis of hormones and corticosteroids. Flavonoids is expected to be an active component having an antidiabetic effect.

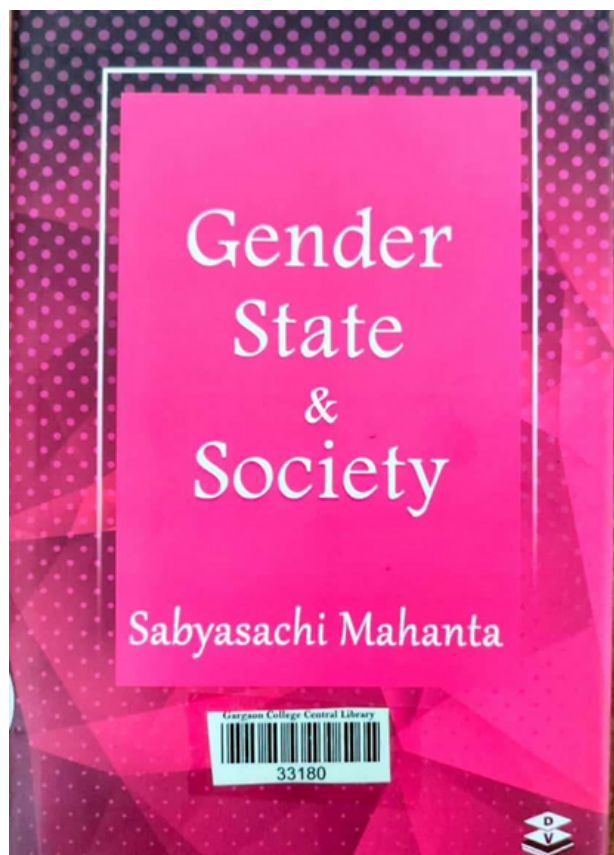
**Keywords:** Phytoconstituents, *Dioscorea alata*, Tuber, Medicine, Assam, Antidiabetic

### 1. INTRODUCTION

*Dioscorea* sp. widely known as yam belongs to the family Dioscoreaceae. It is a large genus comprising of around 600 species is distributed throughout the world. They are an important staple food specially in the tropical countries. Soaring to the world population, there has been always a scarcity of food. Yam is one of the widely consumed tuber crops. Since a long time human is dependent directly or indirectly on the crops but a few times they fail to distinguish between the edible and non-edible ones. Gradually with the understanding, ethno-botany has contributed in missing our knowledge on the use of

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**Portrayal of Women Characters in  
Bollywood Movies: A Study of Select  
Bollywood Movies**

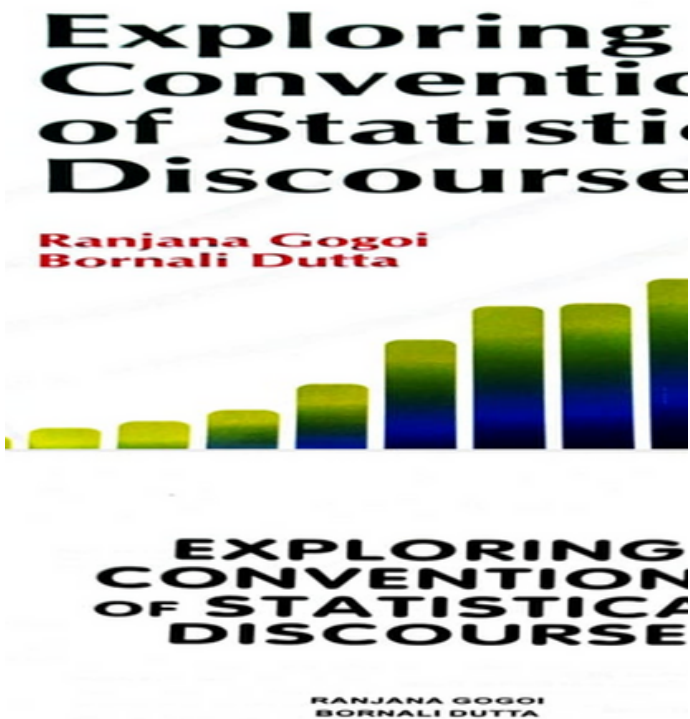
Yuvaraj Gogoi  
Prithwa Deb

**Introduction**

Cinema is the most popular and emotion ridden medium which has a stronghold in the lives of all people. It is an art form that invokes pleasure, as well as pain. The making and consumption of films came into existence long ago and it continues to thrill the spectators. Cinema is not only an art but at the same time it is also a cultural form and Indian cinema has contributed a lot to the entire gamut of celluloid in terms of cultural issues. The realistic representations in Indian cinema certainly revolutionized the idea of cinema as a montage of popular culture but at the same time, it has maintained the common linking thread of cinema as a product of the consumer culture and entertainment industry. Having said this, the idea can be furthered by focusing on the portrayal of women characters in Indian cinema and blending both the genre and the portrayal of women who become an object of the consumer culture is the pivotal point of the present study. However, apart from this, the study shall attempt to look at the multifaceted portrayals of women (for example the representations of strong and bold women) in Indian cinema spanning from the 1970s till the 21st century. The representation of gender issues has been popular amongst the



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A STUDY OF SOME MATHEMATICAL MODELS IN POPULATION BIOLOGY WITH THE HELP OF DIFFERENTIAL EQUATION

KABITA PHUKON AND JUGAL GOGOI

1. Introduction

In science, we understand our real-world phenomenon by observation, collecting data, find rules inside or among them and finally, we want to explore the truth behind and to apply it to predict the future. This is the technique by which we can improve our scientific knowledge. If the above rules are in terms of mathematics, then they are called mathematical models. One important such model is the ordinary differential equations<sup>(1)</sup>. It describes relations between variables and their derivatives. Such models appear everywhere in the real-world. For instance, population dynamics in ecology and biology<sup>(2)</sup>, mechanics of particles in physics, chemical reaction in chemistry, economics, etc. In modern science, we have many advanced tools to collect data and powerful computers to analyze them. To utilize the latest tools and techniques of science and technology, it is very useful to learn about the theory of ordinary differential equation, which is an important language of mathematics. In this article, we will mainly focus on two important classes of mathematical models

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by ordinary differential equations:

1. Model for heat transfer problem<sup>3</sup>
2. Model for population dynamics in biology<sup>4, 5</sup>

1.1. MODEL FOR HEAT TRANSFER

Cooling/Heating of an object

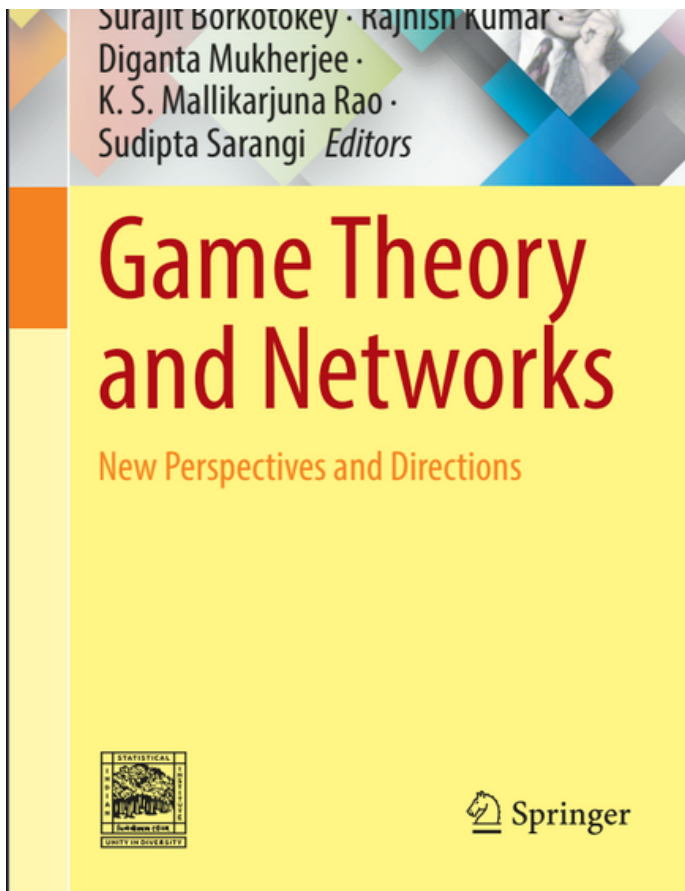
An object is taken out from freezer to defrost. Let  $y(t)$  be its temperature at time  $t$ . Let the room temperature be  $K$  and the initial temperature of the object is  $y_0$ . According to Newton's law of cooling/heating: the rate change of  $y$  is proportional to the difference between  $y(t)$  and  $K$ . More precisely

$$\frac{dy}{dt} = -\alpha(y(t) - K)$$

Here,  $\alpha$  is a conductivity coefficient. It depends on the object. This method can also be used for identify the death time of a human body.



# Collaborative research between Gargaon College and Dibrugarh University, Dibrugarh, Assam



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## The Efficient, Symmetric and Linear Values for Cooperative Games and Their Characterizations



Sujata Goala and Surajit Borkotokey

Mathematics Subject Classification: 91A10 · 91A12

### 1 Introduction

A cooperative game with transferable utilities or a TU game, in short, describes situations where players make binding agreements to generate some worth or profit together. The problem is then how to share the profit among the players in a rational manner. The value is a function that prescribes a scheme of sharing the profit among the players. The most popular value in TU games till date is the Shapley value [20] which gives every player the average of her marginal contributions stemming out from all possible coalitions she can make with her peers under the given binding agreements. The Shapley value is the unique value that satisfies four properties, namely, efficiency, symmetry, linearity, and dummy axiom or the null player property. Another very popular value found in the literature is the equal division rule (ED) that splits the profits equally among the players irrespective of their productivities. The ED also satisfies efficiency, symmetry,<sup>1</sup> and linearity. There is a large class of values that satisfies these three properties, we call them ESL values.

In this paper, we survey the recent developments in the ESL values and their characterizations. We also make a brief discourse of some of the subclasses of the ESL values that build on these characterizations. We show some interesting results

<sup>1</sup>In many occasions, the symmetry we are considering here is called equal treatment to equals and symmetry is another axiom where the permutation of a player does not effect her payoff till she generates the same worth under different permutations in a coalition, however, for linear and efficient values, the two axioms are equivalent ([13], Theorem 2).

S. Goala (✉) · S. Borkotokey  
Department of Mathematics, Dibrugarh University, Dibrugarh 786004, India

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## Chapter 2

### A Review on *Lasia spinosa*: Ethnobotany, Phytochemistry, Pharmacology and Karyomorphology

*Dimbeshwar Das<sup>1\*</sup>, Bijoy Neog<sup>2</sup>, Ajanta Baruah Das<sup>3</sup>  
and Sandeepa Agarwalla<sup>1</sup>*

<sup>1</sup>Department of Botany, <sup>2</sup>IBT HUB,  
Gargaon College, Simaluguri – 785 686, Assam  
<sup>3</sup>Department of Life Sciences, Dibrugarh University, Dibrugarh – 786 004, Assam  
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Medicinal plants serve as a great source for the synthesis of conventional drugs. Proper analysis, awareness and knowledge about the pharmacological activities of plants is required which can be done by various experiments. From this one can ensure safety and can claim various therapeutic benefits. *Lasia spinosa* is an important aroid. It is a potent plant which still needs investigation on different pharmacological activities as it contains various phytochemicals like alkaloids, phenols, tannins, saponins, etc. Besides it is also a good source of dietary.

**Keywords:** Conventional, Pharmacological, *Lasia spinosa*, Phytochemicals, Dietary.

### Introduction

*L. spinosa* is one of the species of *Lasia* belonging to Araceae family (commonly known as aroids). They are locally known as Chengmora in Assam. They are also known by various other vernacular names all over India. The plant

The present book explores the new ideas, overall up-to-date overview of the biological diversity, and outcome of Biodiversity challenges and measures comprising many interesting chapters focusing on the different aspects of biodiversity. The Most chapters compile the findings of investigations and observations on biodiversity, while a few chapters rely on statistically and theoretically derived information. It is a comprehensive review across the recently emerged research endeavors in areas of biodiversity as it is highly interdisciplinary, predicated as it is on the basis that biodiversity and the health of the planet are related indistinguishably. It generates adequate knowledge on the existence, organization and classification of flora and fauna with environmental estimates from a wide variety of interesting terrestrial and aquatic habitats. With 16 engrossing and detailed chapters, Biodiversity and Conservation deals with general to specific aspects of the discipline in its own way. Conservation of the biodiversity is necessarily an umbrella term for traditional species, linkage to human health, ecosystem conservation and the need to manage the human use of the species and ecosystems in a sustainable way. The book gives detailed information, it is hoped that this book will serve the purpose of students whose curricula include biodiversity and its conservation, it forms an ideal source of scientific information to the advanced students, junior researchers, scientists related to this field. I would recommend biodiversity and conservation students to read this book because it shows how our understanding of the complexities and interaction of the natural world help us to live better life naturally.

**Dr. Shashikanth H. Majagi** did his M. Sc. and Ph.D. in Zoology from Gulbarga University, Kalaburagi, Karnataka. He started his carrier as Assistant Professor in Government First Grade College, Chikkballapur and Government College (Autonomous) Kalaburagi. He has published 45 research papers and book articles. He has attended and presented 50 research papers in national/international conferences/symposia and 06 books to his credit. He is a reviewer/ editorial board member for many journals of international acclaim. He is the life member for many academic bodies. He has given radio talks and doordarshan programmes as well. Received prestigious Award for Research Paper (ARP) award from VGST, Government of Karnataka and IOSRD Life time award and Novel Research Academy Award of Excellence in Research. He has successfully organized two national Conference and Workshops. Successfully completed research projects funded by UGC. He has worked as Special Officer for NAAC, Department of Collegiate Education, Regional Joint Director Office, Kalaburagi. Currently he is teaching Environmental Biology, Biodiversity and Limnology to Master degree students. His research interests are on limnology, water quality studies and biodiversity. Currently working as Associate Professor and Chairman, Department of Zoology, Deputy Registrar (DPR) and Nodal Officer for Youth Red Cross.





# Collaboration of Dept of Geography, Gargaon College and Sibsagar Girls' College, Sivasagar for faculty exchange program



শিৱসাগৰ ছোৱালী কলেজ  
SIBSAGAR GIRLS' COLLEGE  
Sivasagar, Assam-785640

Dr. Rita Borkotoky, M.Sc., B.T., PhD.  
Principal In-charge

Ref No. GC/SM/36/423/22 Date: 18/06/22

To

Dr. Rituraj Neog,  
Assistant Professor,  
Department of Geography  
Gargaon College, Simaluguri,  
Sivasagar.

Sub:- Invitation to the Faculty Exchange Programme.

Dr. Neog,

Warm Greetings from Sibsagar Girls' College. As apart of Faculty Exchange Programme initiated by the Internal Quality Assurance cell of the college, may I request you to participate in the said programme in favour of the department of Geography, Sibsagar Girls' College, Sivasagar, Assam on 20/06/2022.

I hope your participation in the faculty Exchange programme will benefit the students of the Geography Department.

Looking forward to your positive response.

Thanking you,

Yours faithfully,

(Dr. Rita Borkotoky)


Principal Incharge  
Sibsagar Girls' College  
Sivasagar - 785640  
Assam

Copy to:-

1. Principal, Gargaon College.
2. HOD, Deptt. of Geography, Gargaon College.



# Collaboration of Dept of Mathematics, Gargaon College and Dibrugarh University, Dibrugarh for National Mathematics Day, 2021

  
**DIBRUGARH UNIVERSITY**  
**DEPARTMENT OF MATHEMATICS**  
 DIBRUGARH, ASSAM - 786004

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 Associate Professor & Head  
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 Phone - 99542 93291 (MY 2370251) (O)

Ref: No. DUMATHS/2021/১২.

---

To \_\_\_\_\_ Date: 14.12.2021

দিনাংক: ১৭ আষাঢ়, ১৬৭৩ লসাদ

The Principal  
 Gargaon College  
 Sivasagar-785686, Assam

Sub: Request for Collaboration to observe National Mathematics Day, 2021 regarding.


Sir

Thank you for your letter dated 14.12.2021. We are happy to know that you are going to celebrate the National Mathematics Day on 22 December, 2021 in honour of the great Indian polymath Srinivasa Ramanujan Aiyangar, FR.S.

On behalf of the department, I thank you for your proposal and agree with the collaboration.

Thanking you.

Copy to:  
 The Registrar, Dibrugarh University for information.

  
 Head  
 Department Of Mathematics  
 Dibrugarh University  
 Head

## গড়গাঁও মহাবিদ্যালয়ত ৰাষ্ট্ৰীয় গণিত দিৱস উদ্‌যাপন

Department of Mathematics, Gargaon College  
 Collaboration with  
 Department of Mathematics, Dibrugarh University  
 Academic Gallery, Gargaon College  
 Date: 22-12-2021 (Wednesday)  
 Time: 10:30 AM



স্টাফ বিপ চাঁব, শিৱসাগৰ, ২২ ডিচেম্বৰঃ শিৱসাগৰ জিলাৰ ঐতিহ্যমণ্ডিত গড়গাঁও মহাবিদ্যালয়ত আজি বিশিষ্ট গণিতজ্ঞ শ্ৰীনিবাস ৰামানুজনৰ জন্মদিনৰ লগত সংগতি ৰাখি পালন কৰা 'ৰাষ্ট্ৰীয় গণিত দিৱস' উপলক্ষে এক গাৰ্ভাৱপূৰ্ণ অনুষ্ঠান অনুষ্ঠিত হৈ যায়। মহাবিদ্যালয়খনৰ গণিত বিভাগ আৰু অভ্যন্তৰীণ মান নিৰূপণ কোষৰ উদ্যোগত আৰু ডিব্ৰুগড় বিশ্ববিদ্যালয়ৰ গণিত বিভাগৰ সহযোগত আয়োজিত অনুষ্ঠানটি শুভ উদ্বোধন কৰে অধ্যক্ষ ড° সৰ্ব্যসীমা মহন্তই। উদ্বোধনী ভাষণত ড° মহন্তই শ্ৰীনিবাস ৰামানুজনৰ জীৱন আৰু কৰ্মৰ বিষয়ে আভাস দিয়াৰ লগতে গণিত বিষয়ৰ গুৰুত্ব আৰু প্ৰাসংগিকতাৰ সম্পৰ্কে মন্তব্য আগবঢ়ায়। এই অনুষ্ঠানত বিশিষ্ট অতিথিকৰূপে অংশগ্ৰহণ কৰে ডিব্ৰুগড় বিশ্ববিদ্যালয়ৰ গণিত বিভাগৰ সহকাৰী প্ৰাধ্যাপক ড° পলাশ দত্তই। তেওঁ ভাষণত ভাৰতৰ বিশিষ্ট গণিতজ্ঞ শ্ৰীনিবাস ৰামানুজনৰ প্ৰজ্ঞা, চ পৃষ্ঠাত

## National Mathematics Day observed

**OUR CORRESPONDENT SIVASAGAR, Dec 22:** Department of Mathematics and IQAC of Gargaon College, a premier higher educational institution of Sivasagar, in collaboration with the Department of Mathematics, Dibrugarh University, observed National Mathematics Day on Wednesday.

The programme was inaugurated by the Principal of Gargaon College, Dr. Sabyasachi Mahanta, who in his inaugural address highlighted the life and role of mathematical genius S Ramanujan and also spoke about the importance of the study of Mathematics. He also inaugurated the wall magazine of the Department of Mathematics in presence of the Head of the Department of Mathematics, Dr. Kabita Phukan and other faculty members.

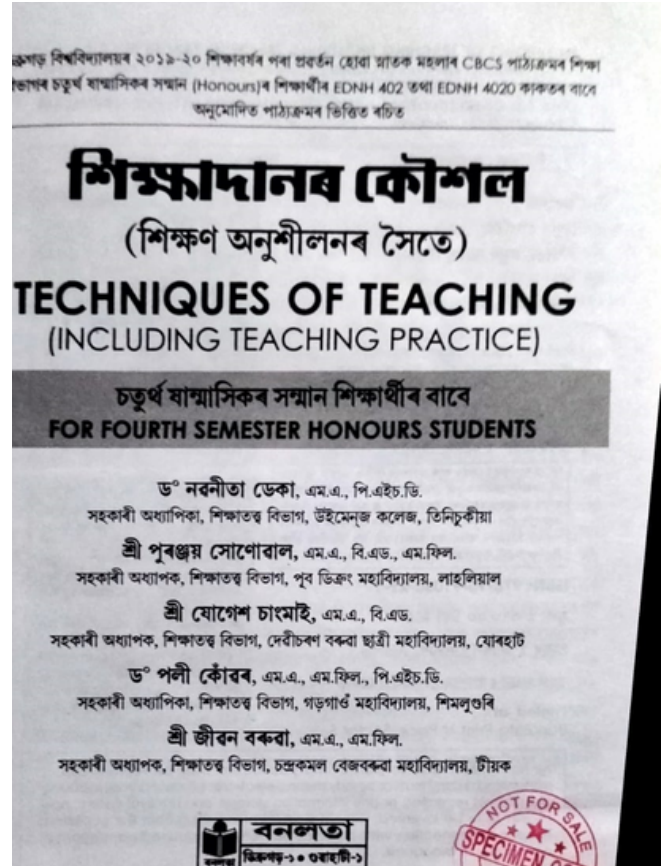
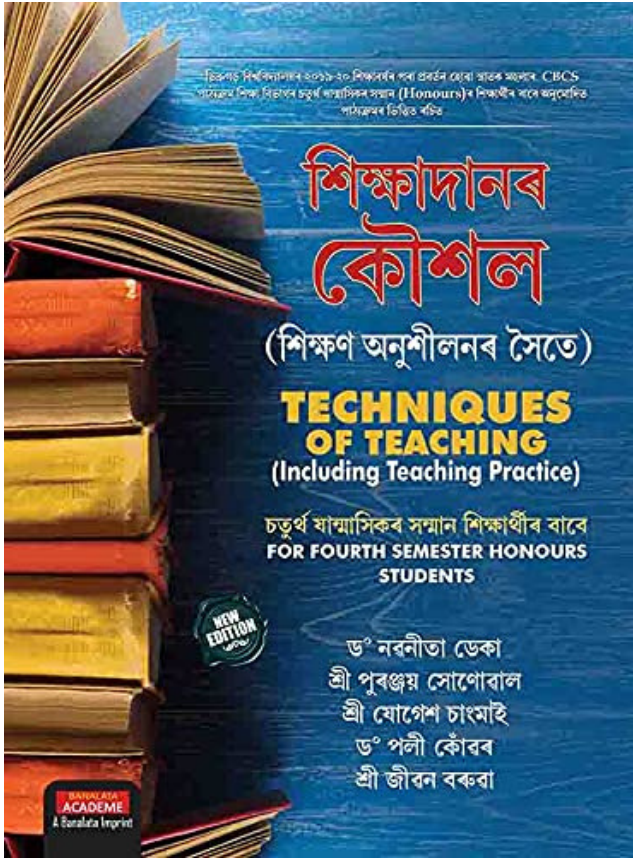
Dr. Palash Dutta, Assistant Professor of the Department of Mathematics, Dibrugarh University delivered his keynote address wherein he highlighted the contributions of the prodigious mathematician Ramanujan. He also narrated the indispensable role the discipline of Mathematics plays in our daily life.

The programme was attended by around 250 students apart from the faculty members of other departments. Milon Bhuyar, the former Head of the Department, also graced the occasion as a guest.





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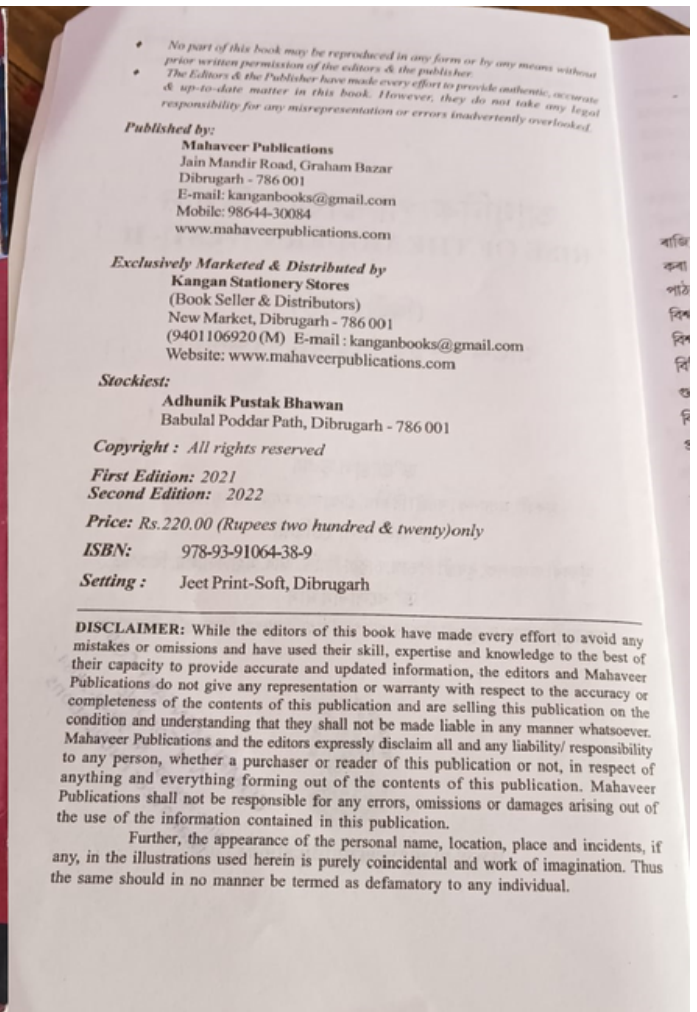
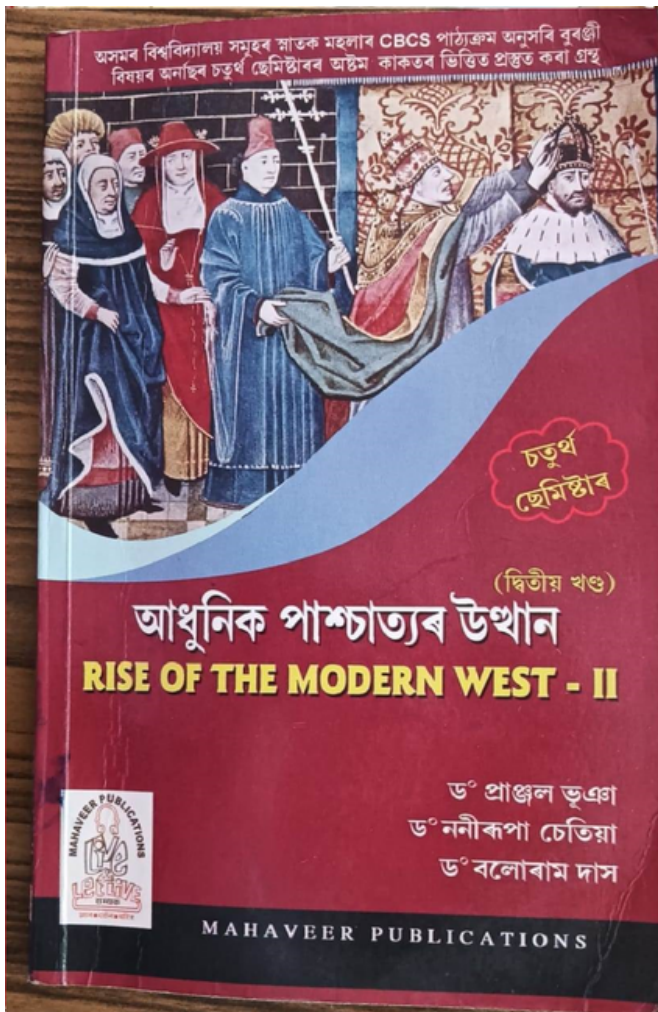
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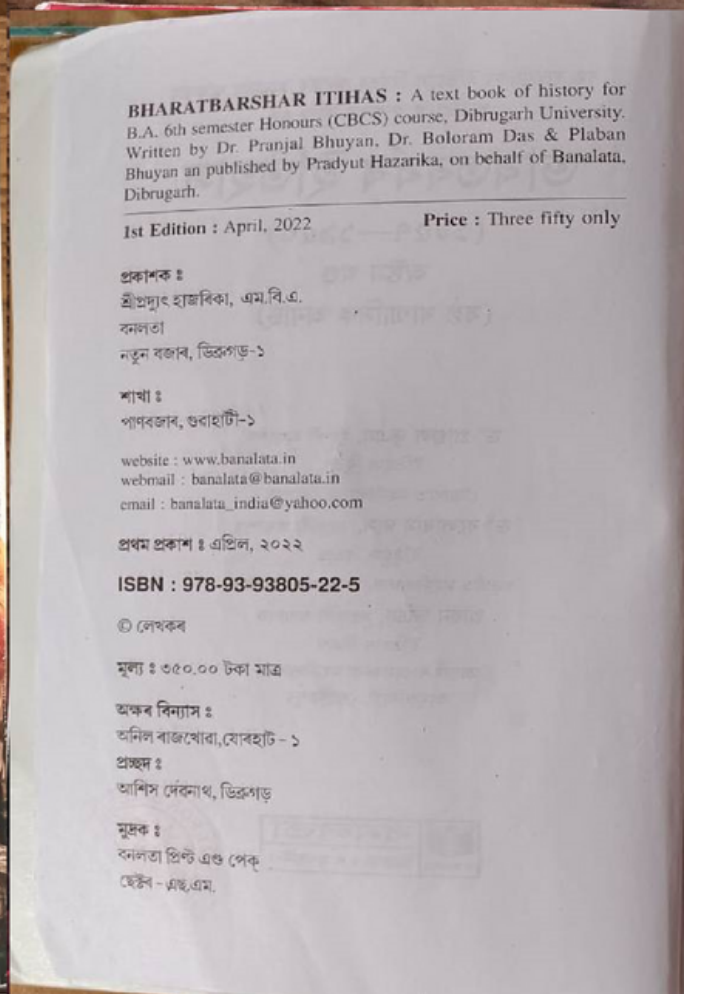
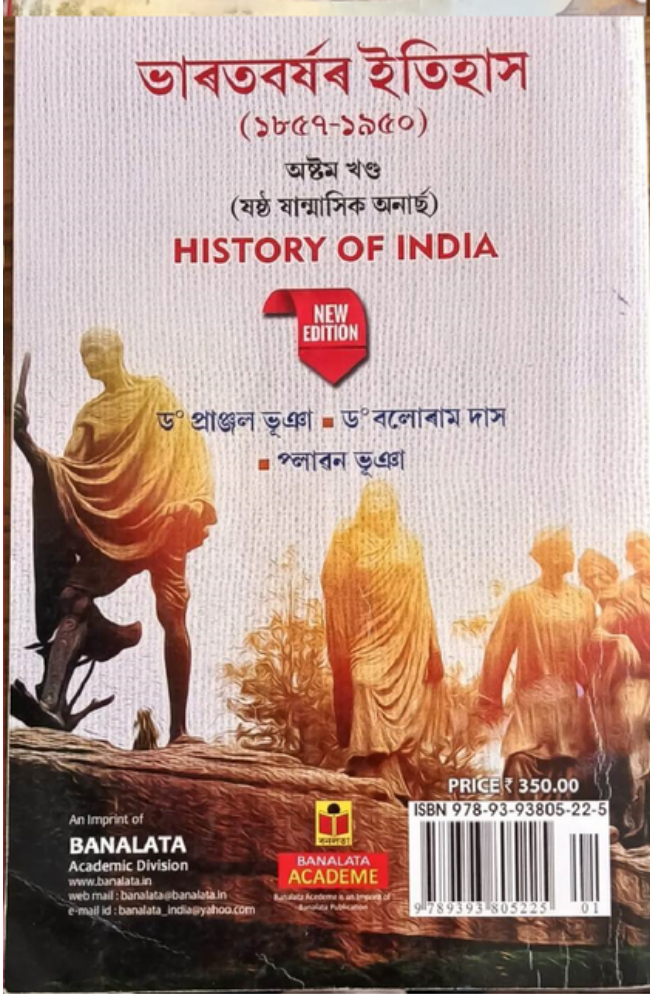
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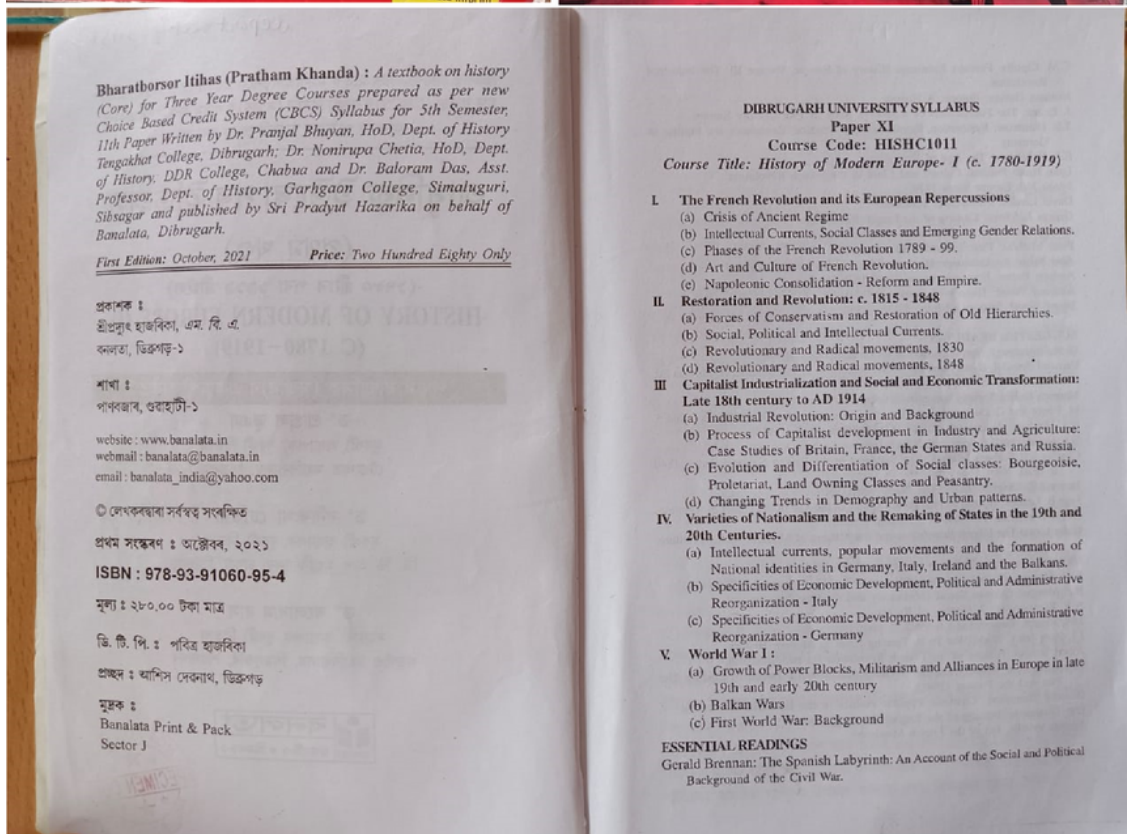
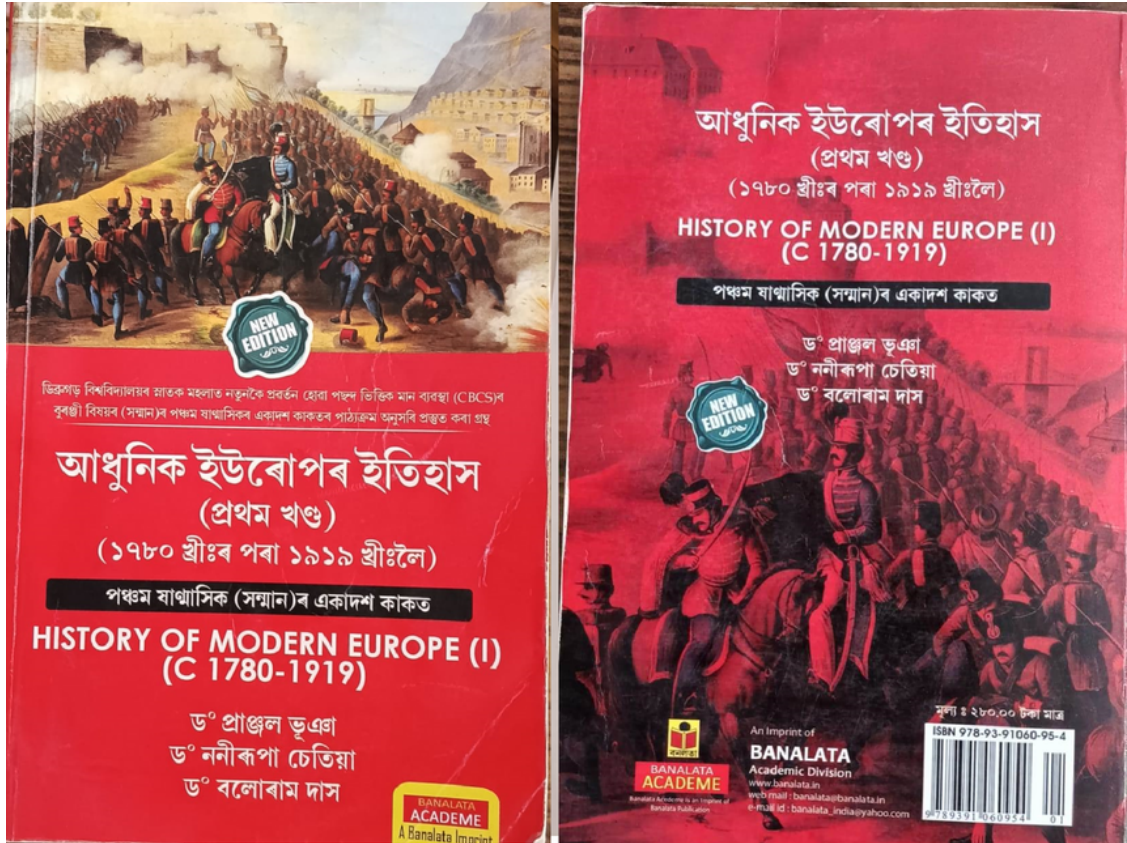




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of History, DDR College, Chabua and Dr. Baloram Das, Asst.  
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- I. The French Revolution and its European Repercussions
  - (a) Crisis of Ancient Regime
  - (b) Intellectual Currents, Social Classes and Emerging Gender Relations.
  - (c) Phases of the French Revolution 1789 - 99.
  - (d) Art and Culture of French Revolution.
  - (e) Napoleonic Consolidation - Reform and Empire.
- II. Restoration and Revolution: c. 1815 - 1848
  - (a) Forces of Conservatism and Restoration of Old Hierarchies.
  - (b) Social, Political and Intellectual Currents.
  - (c) Revolutionary and Radical movements, 1830
  - (d) Revolutionary and Radical movements, 1848
- III. Capitalist Industrialization and Social and Economic Transformation: Late 18th century to AD 1914
  - (a) Industrial Revolution: Origin and Background
  - (b) Process of Capitalist development in Industry and Agriculture: Case Studies of Britain, France, the German States and Russia.
  - (c) Evolution and Differentiation of Social classes: Bourgeoisie, Proletariat, Land Owning Classes and Peasantry.
  - (d) Changing Trends in Demography and Urban patterns.
- IV. Varieties of Nationalism and the Remaking of States in the 19th and 20th Centuries.
  - (a) Intellectual currents, popular movements and the formation of National identities in Germany, Italy, Ireland and the Balkans.
  - (b) Specificities of Economic Development, Political and Administrative Reorganization - Italy
  - (c) Specificities of Economic Development, Political and Administrative Reorganization - Germany
- V. World War I :
  - (a) Growth of Power Blocks, Militarism and Alliances in Europe in late 19th and early 20th century
  - (b) Balkan Wars
  - (c) First World War: Background

ESSENTIAL READINGS

Gerald Brennan: The Spanish Labyrinth: An Account of the Social and Political Background of the Civil War.



# Collaboration for Webinar between Dept. of English, Gargaon College and Dept. of English, Dibrugarh University, Assam



## GARGAON COLLEGE

INAUGURATION OF THE ADD ON COURSE  
ON CREATIVE WRITING IN ENGLISH

**A SPECIAL LECTURE**

**TOPIC: "CREATIVE WRITING: BACK TO BASICS"**

ORGANISED BY  
THE DEPARTMENT OF ENGLISH, GARGAON COLLEGE  
IN ASSOCIATION WITH IOAC



**Date:**  
29th August, 2022

**Time:**  
7 p.m. onwards

**Platform:**  
Zoom

**MEETING LINK:**  
[HTTPS://US02WEB.ZOOM.US  
/J/84348409004?](https://us02web.zoom.us/j/84348409004?pwd=MFBWdGhUQYTLZVLJMWtVbV05M2WRUT09)  
PWD=MFBWdGhUQYTLZVLJM  
WtVbV05M2WRUT09



**Inaugurator**  
**Dr. Sabyasachi Mahanta**  
Principal  
Gargaon College



**Speaker**  
**Dr. Basil N. Darlong Diengdoh**  
Assistant Professor  
Dept. of English  
Dibrugarh University

**Technical Coordinator**  
**Dr. Dimbeswar Das**  
Assistant Professor  
Dept. of Botany

**Advisor**  
**Mr. Rajib Gogoi**  
Hod & Associate Professor

**Members**  
**Dr. Rashmi Rekha Saikia, Associate Professor**  
**Dr. Anjan Konwar, Assistant Professor**  
**Dr. Jitu Saikia, Assistant Professor**  
**Mr. Bitupal Borgohain, Assistant Professor**

**Coordinator**  
**Dr. Shyamolima Saikia**  
Assistant Professor



7:03 | 53.0 KBPS | 50% | Zoom | Leave

REC

Shyamolima Saikia

Prastuti Phukon

Dr. Sabyasachi Mahanta | Rajib Gogoi

Unmute | Start Video | Share | 67 Participants | More

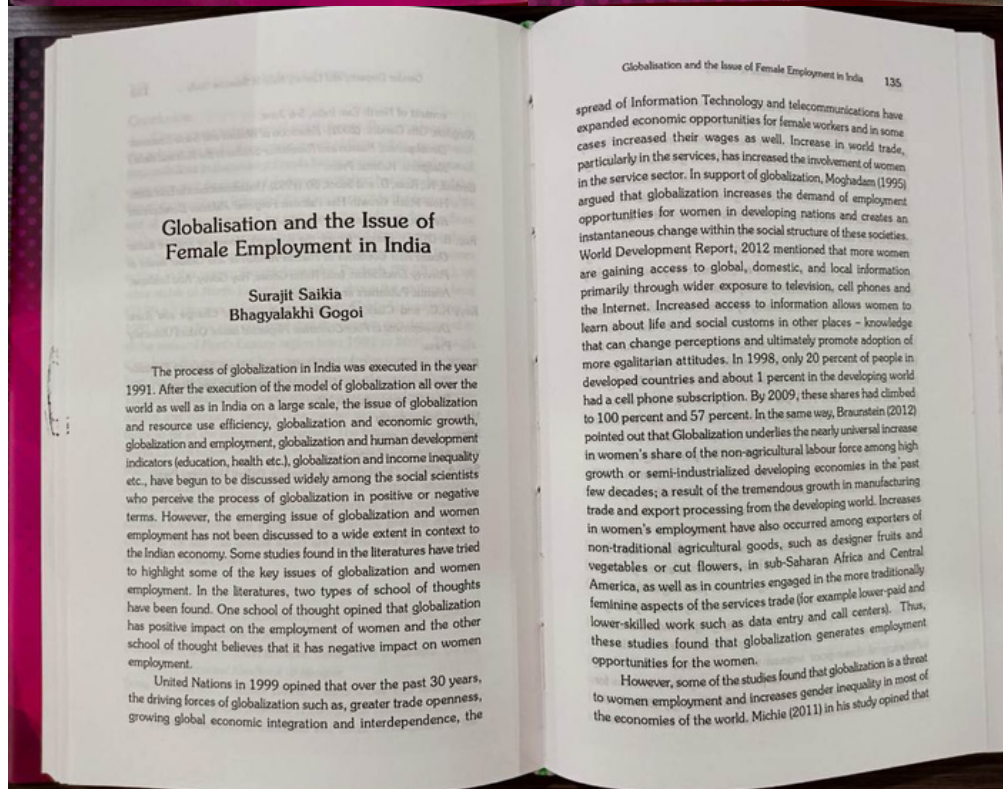
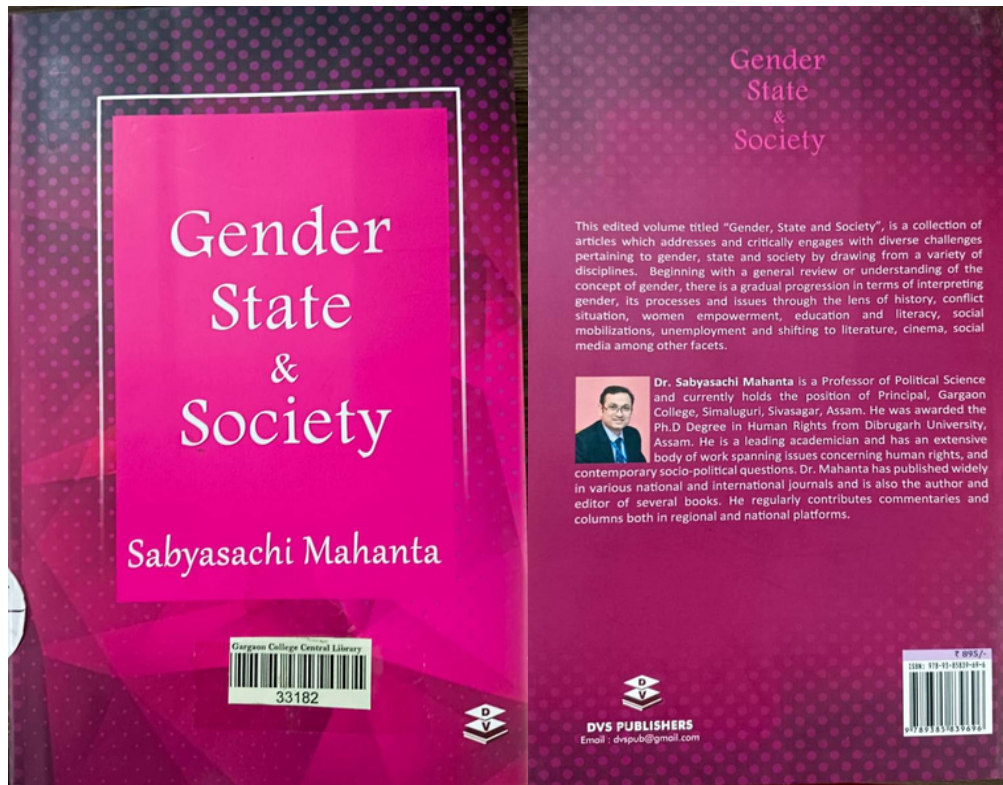
ৱাৰত আনকী তথা গৈছিল। উচ্ছেদ স্থলীত উপস্থিত থকা এই এহাজাৰ বিঘা চৰকাৰী(যষ্ঠ পৃষ্ঠালৈ)

## গড়গাঁও মহাবিদ্যালয়ৰ ইংৰাজী বিভাগৰ উদ্যোগত সৃষ্টিশীল লেখন পাঠ্যক্রম

নতুন স্বদেশ সেৱা, শিৱসাগৰ, ৪ চেপ্তেম্বৰঃ শিৱসাগৰ জিলাৰ গড়গাঁও মহাবিদ্যালয়ৰ ইংৰাজী বিভাগৰ উদ্যোগত আৰু আভ্যন্তৰীণ মান নিৰূপণ কোষৰ সহযোগত যোৱা ২৯ তাৰিখে জিৱসাগড় বিশ্ববিদ্যালয়ৰ দ্বাৰা অনুমোদিত সংযোজিত পাঠ্যক্রম ইংৰাজী সৃষ্টিশীল সাহিত্য লেখন পাঠ্যক্রমৰ আৰম্ভ কৰা হয়। পাঠ্যক্রমটোৰ উদ্বোধনী অনুষ্ঠান উপলক্ষে আয়োজন কৰা বিশেষ অনলাইন বক্তৃতাৰ সমল ব্যক্তি হিচাপে উপস্থিত থাকে জিৱসাগড় বিশ্ববিদ্যালয়ৰ ইংৰাজী বিভাগৰ সহকাৰী অধ্যাপক ডঃ বাৰ্চিল এন ডাবলং ডিয়েংডো। উদ্বোধনী ভাষণত গড়গাঁও মহাবিদ্যালয়ৰ অধ্যক্ষ তথা বিশিষ্ট শিক্ষাবিদ, প্ৰবন্ধকাৰ ডঃ সন্ধ্যাশ্ৰী মহন্তই মহাবিদ্যালয়খনে অনুমোদন লাভ কৰা ২৩ টা সংযোজিত পাঠ্যক্রমৰ ভিতৰত ১৬ টা পাঠ্যক্রম মুকলি কৰাত সন্তুষ্টি ব্যক্ত কৰে। আমি কি ভাবোঁ, কল্পনা কৰোঁ আৰু প্ৰকাশ কৰোঁ তাৰ এক শৈল্পিক অভিব্যক্তি হিচাপে সৃষ্টিশীল লেখনক সংজ্ঞায়িত কৰি ডঃ মহন্তই আশা প্ৰকাশ কৰে যে ইংৰাজীত সৃষ্টিশীল লেখন পাঠ্যক্রম নিশ্চিতভাৱে লাভজনক হ'ব আৰু শিক্ষার্থীসকলৰ শৈক্ষিক কেৰিয়াৰত অতিবিক্ৰমপ্ৰমাণপত্ৰ যোগ দিব। তেওঁ পাঠ্যক্রমটো প্ৰবৰ্তন কৰাৰ ক্ষেত্ৰত ইংৰাজী বিভাগৰ প্ৰচেষ্টাক প্ৰশংসা কৰে আৰু লগতে সমগ্ৰ পাঠ্যক্রম ৰচনাৰ বাবে উদ্যোগ লোৱাৰ বাবে আইকিউএচিৰ সমন্বয়ক ডঃ সুবজিৎ শইকীয়াৰ প্ৰচেষ্টাক প্ৰশংসা কৰে। অনুষ্ঠানত ভাষণ প্ৰদান কৰি ইংৰাজী বিভাগৰ মূৰব্বী ৰাজীৱ গগৈয়ে মহাবিদ্যালয়খনৰ অধ্যক্ষ ডঃ সন্ধ্যাশ্ৰী মহন্তক শিক্ষাৰ মনলগ উন্নত কৰাৰ লগতে মহাবিদ্যালয়খনৰ আন্তঃগাঁথনি উন্নত আৰু বৃদ্ধিত তেওঁৰ ভূমিকাৰ বাবে কৃতজ্ঞতা জ্ঞাপন কৰে। ক্ৰিয়েটিভ ৰাইটিং কেবল টু বেছিকছ শীৰ্ষক বিষয়ত সুন্দৰ উপস্থাপনেৰে সমল ব্যক্তিগৰাকীয়ে সৃষ্টিশীলতা বিকাশৰ বিভিন্ন পদ্ধতি, শব্দভাণ্ডাৰ নিৰ্মাণৰ প্ৰয়োজনীয়তা, দুশ্যায়নৰ গুৰুত্ব, প্ৰতিৰ তাৰতম্য আৰু পৰিবৰ্তন আদি সৃষ্টিশীল লেখনৰ বিভিন্ন দিশৰ ওপৰত আলোচনা কৰে। ইংৰাজী (যষ্ঠ পৃষ্ঠালৈ)



# Collaboration for Book Publication between Dept. of Economics, Gargaon College with Tinsukia Womens' College, Tinsukia, Assam



# Collaboration for Seminar/ Workshop & Capacity Building Program between Gargaon College with Omeo Kumar Das Institute of Social Change & Development, Assam



**OMEO KUMAR DAS INSTITUTE OF SOCIAL CHANGE AND DEVELOPMENT |**

VIP Road, Upper Hengrabari, Guwahati-781036, Assam, India

Phone : 0361-2333064, 2335204 (0), 2335206 (Fax)

e-mail : dkdsacd@yahoo.co.in, Web : www.okd.in

**Saswati Choudhury, Ph.D.**  
**Director i/c**

To  
The Principal  
Gargaon College  
Simaluguri-785686  
Sivasagar, Assam

ISCD/Estt/393/2021/058321A  
5<sup>th</sup> March, 2021

Dear Sir,

I deeply appreciate the initiatives you have been taking to establish your college as one of the leading academic Institutions of Assam. Omeo Kumar Das Institute of Social Change and Development (OKDISCD), Guwahati will be happy to collaborate with your esteemed college in organizing certain meaningful events such as seminar, workshop, capacity building programme etc. In response to your letter No. GC/IQAC/130/2020/525 dated the 14<sup>th</sup> December, 2020, the Institute is contemplating such a programme to be organized in your college shortly.

In the meantime, I have the pleasure to inform you that the Institute has been conducting a study on "Understanding Problems of Minority Ethnic Communities in North East India for Working out Possible Solutions", and my colleague Prof. Bhupen Sarmah had a brief discussion with you on the study during his visit to your college on the 1<sup>st</sup> March, 2021.

As the title of the study suggests, we are keen to understand the basic development concerns of the minority ethnic communities scattered in the region, and as we know, there are certain such communities in the districts of Golaghat, Jorhat, Sivasagar and Charaideu. Considering the available expertise and access, the Institute would be happy to work for the study in collaboration with the IQAC of your esteemed college, and Prof. Sarmah had also discussed briefly with your colleague, Dr. Surajit Saikia. The Institute would be happy to bear the necessary expenditure on food, travelling etc. of the members of the IQAC who would be involved in the study. My colleague Shri Akshay Jyoti Sarma has been coordinating the study, and therefore, he will have a detailed discussion with to Dr. Saikia.

I would be grateful, if you kindly entrust the responsibility of collecting the required field insights to the IQAC of your college coordinated by Dr. Surajit Saikia.

With warm personal regards,

  
(Saswati Choudhury)

# Collaboration for Faculty Exchange Program between Gargaon College with Sibsagar College , Sivasagar, Assam

## GARGAON COLLEGE

ESTD: 1959

Reaccredited by NAAC with B Grade

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Ref. No :

Date: 16/06/2022

From: - Dr. Dimbeshwar Das  
HOD & Assistant Professor  
Department of Botany  
Gargaon College, Simaluguri  
Sivasagar, Pin – 785686, Assam

To  
Dr. Prabhat Ch. Nath  
HOD & Assistant Professor  
Department of Botany  
Sibsagar College, Joysagar  
Sivasagar, Pin – 785665, Assam

Dear Dr. Nath

I am pleased to inform you that the Department of Botany, Gargaon College has initiated a Faculty Exchange Programme for the benefit of the students. Therefore, you are invited as a faculty speaker for the session that is scheduled on **24th June 2022** on the topic **Plant Classification and Numerical Taxonomy (TIME: 10:00 AM-12:00 PM)**.

We look forward to welcoming you. We are hopeful that your deliberation will be helpful for our students in acquiring new knowledge and understanding.

Thanking You

(Dr. Dimbeshwar Das)

Head  
Department of Botany  
Gargaon College, Simaluguri  
Dist. Sivasagar, Pin 785686 Assam

