



MARIANI COLLEGE



SELF STUDY REPORT FOR 3RD CYCLE OF NAAC ACCREDITATION 2018-2023

Supporting Documents for NAAC Self Study Report (SSR) (3rd Cycle) Period: 2018-2023



Criterion 3

Key Indicator: 3.2

Research, Innovations and Extension

Research Publication and awards

Metric Number: 3.2.2

Number of Book and chapters in edited volumes/books published in national/international conferece proceedings per teacher during last five years.

Prepared and submitted by:

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FOR 3RD CYCLE OF NAAC ACCREDITATION

2016 - 2021



Matric No.	Heading
3.3.2	Books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years

‘অরণ্য সম্পৃক্ত বাংলা উপন্যাস’ এই সংজ্ঞার আলোকে বনফুলের উপন্যাস ‘স্বাবর’

দৌতম দেব
সহকারী অধ্যাপক
বাংলা বিভাগ, মরিয়নি মহাবিদ্যালয়

সুমিকা :

বনফুলের উপন্যাসটি, মরিয়নি বাংলা সাহিত্য জগতে বনফুল নামে পরিচিত এক
রচনায় প্রবর্তিত ও অরণ্য নামে ধরা দিয়েছে। তাঁর ‘ওলা’ (১৯৪৮) উপন্যাসের মূ
দিয় পাঠ। পঞ্চাশগতের বিচিত্র জাতিগোত্রের পরিচয় যেমন বিধৃত করেছেন বনফ
ওঁর এই রচনায়, ঠিক তার সঙ্গে বিচিত্র মানব মনের নিজের আকাশে ইচ্ছে জনা মে
নির্দিষ্ট মেশিককে রসোচ্ছল বর্ণনা য় সুস্পষ্ট রূপ দিতে চেয়েছেন। তাঁর ‘স্বাবর’ (১৯৫১)
উপন্যাসে প্রত্নতাত্ত্বিক মনুষ্যের বিবর্তনের ইতিহাসের খোঁজা করেছেন। উপন্যাস
কিন্তু তার বিবরণ তুলে ধরতে গিয়ে তাকে প্রাচীন অরণ্যচারী মনুষ্যের আদিম পথ
অবস্থার থেকে হীনে ধীরে সভ্যতাকামী হয়ে ওঠার যাত্রা পথে মানুষ নামক এক জন্তু
লিখন তুলে ধরতে হয়েছে। ফাল্গুন আশ্রয় স্থল, বেঁচে থাকার বসদ স্থানিহাচ্ছ অরণ্য
এমনকী গোষ্ঠীয় পরিচয়ও অরণ্যেরই জন্তুদের নাম দিয়ে। এই আদিম মানবকে টি
থাকতে হয়েছে ভয়াল আদিম অরণ্যের পাণ্ডুলে সঙ্গ লড়াই করে, আদিম প্রকৃ
বিরুদ্ধ পরিবেশের সঙ্গে খাপ খাইয়ে। মানুষ তার পুত্র সহাবস্থান এবং নন্দ দেখা গ
তাদের জীবিতের প্রয়োজনে। মানুষ তার নিজ প্রয়োজন মেটাতে অরণ্যের জীবকুল
উজাড় করেছে সেই আদিম কাল থেকেই। আদিম মানুষের আবাদ এবং বসতি পদ্ধ

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COORDINATOR, IQAC CELL
Mariani College, Mariani




Principal
Mariani College, Mariani

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Mariani College, Mariani



Principal
Mariani College, Mariani

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Bhramari
COORDINATOR, IQAC CELL
Mariani College, Mariani



Informusolita
Principal
Mariani College, Mariani

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Bhramari
COORDINATOR, IQAC CELL
Mariani College, Mariani



Informal
Principal
Mariani College, Mariani



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**ড° মামণি বসুচম গোস্বামীৰ উপন্যাসত
চৰিত্ৰ বৈচিত্ৰ্য**

(জগদীশ বাণী উপন্যাসৰ বিশেষ উল্লেখৰ সহ)

ডা° সুবৰ্ষি দাস
মহাকাব্যী অধ্যাপিকা
স্বদেশীয়া বিভাগ, মনিয়ানি মহাবিদ্যালয়

পৰিচয় :
জগদীশ বাণী উপন্যাসখন মূলতঃ পঞ্চম দশশতাব্দীৰ উপন্যাস। এটা বিশেষ
খণ্ডিতকালৰ পৰা বিভিন্ন খণ্ডৰ অঙ্কিত মানুহৰ পৰ্যবেক্ষণে উল্লেখযোগ্য বিভিন্ন দেশ পৰিভ্ৰমণ
সাথে আৰম্ভতে এই পৰ্যবেক্ষণ সাধিত কৰিছিল আৰু ইয়াৰে পৰিচয় মানুহৰ জীৱন
বিচিত্ৰ দিশ জনকৰ পাৰ্শ্বত। আনহাতে উল্লেখযোগ্য বিভিন্ন উদ্ভিদৰ পৰা উদ্ভূত ইতিহাস,
সংস্কৃতি, জলা, অধ্যাপিকা বিষয়ে উপন্যাসিকৰ উল্লেখ পৰ্যবেক্ষণে উপন্যাসখন
আনুভূতিক জগতৰ বিশেষত্বক নিৰ্ভীত সংগঠিত হোৱা সাধনাত্মিক লক্ষণৰ উপন্যাসত
আলোকপাত কৰিছে।

বিসয় :
উপন্যাসখনখনত বিভিন্ন ভাৱনাত্মক আনুভূতিক সংগঠিত সাংস্কৃতিক লক্ষণ, উল্লেখযোগ্য
বিভিন্ন উদ্ভিদৰ পৰা উদ্ভূত জলা-সংস্কৃতি, ধৰ্ম, উদ্ভিদৰ আদিৰ উল্লেখ পৰ্যবেক্ষণ
অধ্যাপিকা জগতৰ পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে
পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে
পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে পৰ্যবেক্ষণে

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Bhramari
COORDINATOR, IQAC CELL
Mariani College, Mariani



Informal
Principal
Mariani College, Mariani



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Determinants of Birth Spacing Among the Tea Garden Labourers of Assam

Arupanjali Borah

Abstract

Birth spacing is an important indicator of the physical and mental well-being of the mother and child. Being backward in various social and economic aspects of life, the age at marriage of the people belonging to the tea garden community is quite low, due to which birth rate is very high, and knowledge of family planning is also found to be very low among them. Many studies have found that multiple and frequent birth rate is quite common among the women belonging to the tea garden community of Assam. They have very little or no knowledge regarding the minimum gap to be maintained between two births. It is in this context that the present study has been undertaken. The present study was carried out in five tea gardens of Jorhat district. Key words: Birth Interval, Breastfeeding, Family Planning.

1. Introduction

Birth spacing refers to the time interval from one child's birth date until the next child's birth date. It is one of the important indicators of fertility scenario of a country (Ahabab Mohammad, Sayema Sharmin

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Mariani College, Mariani




Principal
Mariani College, Mariani



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CHAPTER 21

PRINCIPLES AND PRACTICES OF MAPPING QTLs IN PLANTS

SLIMYAMA BATHIE, ANSHU BHANU DHARWAL, SUBODH KUMAR, and SAMINDRA BASHYAI

¹Department of Biochemistry and Agricultural Chemistry, Assam Agricultural University, Jorhat, Assam, India

²Department of Agricultural Biotechnology, Assam Agricultural University, Jorhat, Assam, India

³Department of Zoology, Mariani College, Mariani 785614, Jorhat, Assam, India

Corresponding Author: Email: subodh@assamagriuniv.ac.in

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Bhambhani
COORDINATOR, IQAC CELL
Mariani College, Mariani



Informusolita
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Mariani College, Mariani



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<p style="text-align: center;">A Demographic Study of the Tea Garden Labourers of Upper Assam</p> <p style="text-align: center;">Arupanjali Borah*</p> <p>Introduction</p> <p>Population wise, India is the second in the world, just after China. India's population reached the one billion mark on May 11, 2000 and in March, 2011 the population of India was 1.21 billion (Census of India, 2011). During the 1911-20 decade, India suffered from an influenza epidemic that caused an estimated 7 per cent of the population to die. It was much more virulent in some provinces than in others (Mitra, 1978). Since 1921, the major causes of high mortality have been gradually brought under control and between 1921 and 1951 the country witnessed a gradual rise in population growth rates. The decline in death rate became sharper after Independence in 1947, with the result that population nearly doubled in 34 years – from an estimated 347.5 million in 1947 to 683.3 million in 1981. Further, during the fifty-year period between 1951 and 2001, India's population increased by 668 million, which was country's total population in 1979. Assam, Manipur, Nagaland and Tripura experienced very high population growth rates during 1901-21. The rapid population growth in Assam was mainly due to heavy immigration to the state's tea gardens (Premi, 2006).</p> <p>The History of the Tea Garden Labourers of Assam dates back to the British Rule in India. The 180-year old tea industry of Assam has</p> <hr/> <p>* Assistant Professor, Department of Economics, Mariani College., Contact no. 9954281550, E-mail: arapa09@gmail.com</p>	
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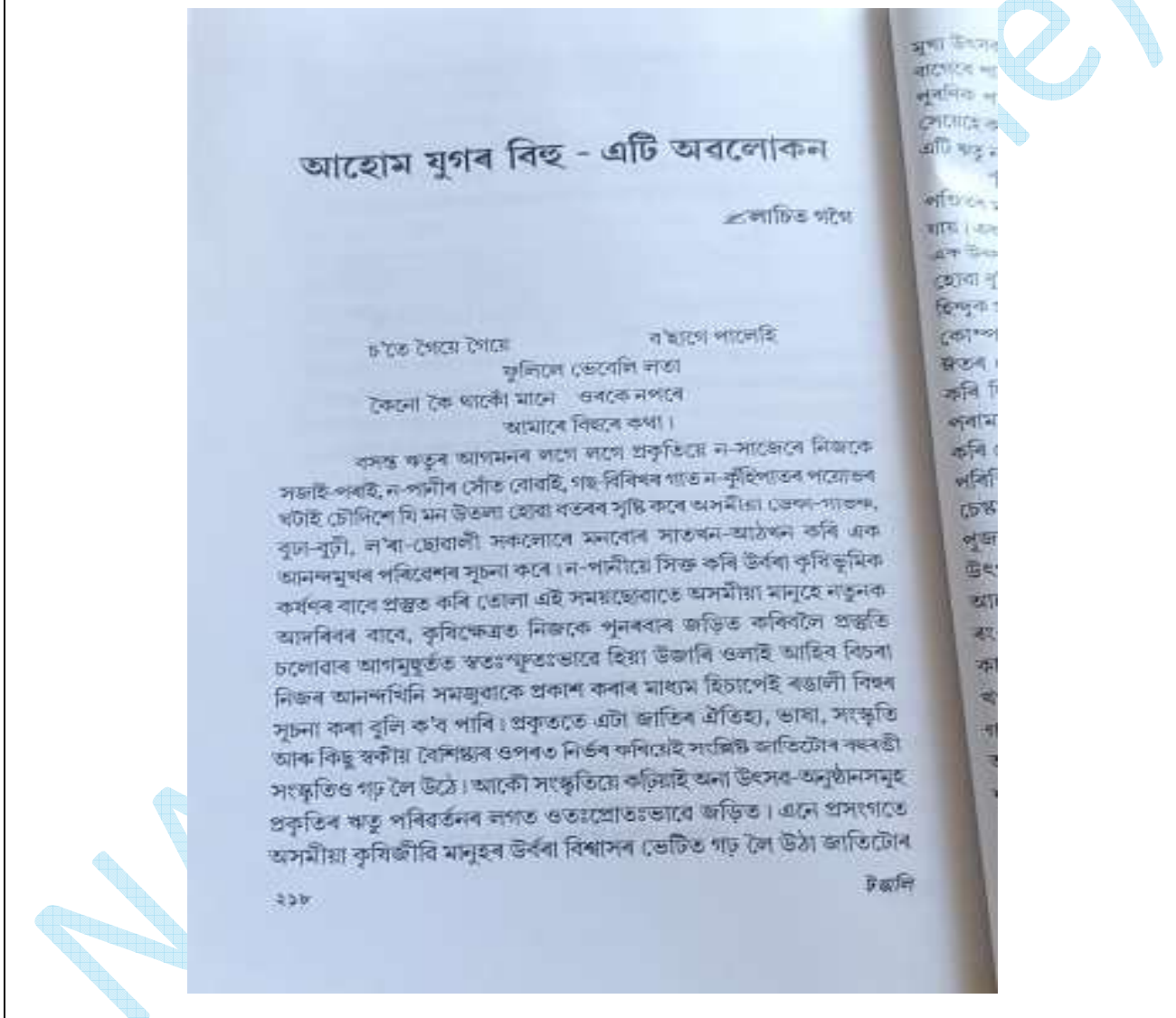
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Teacher Education and Beyond
ISBN : 978-93-88593-39-7

Chandraprabha Saikiani and Women's Education in Colonial Assam

Nivedita Sarmah*

Abstract

The 19th and 20th centuries witnessed the introduction of formal education to women in India and Assam was not an exception. The initiative of imparting education to girls was first taken by the Christian Missionaries. The British administration and some educated Assamese young men played active part in women's education. Soon a handful of Assamese women enlightened with education came to the forefront with the noble duty of educating women in different parts of the province. In this regard, the name of Chandraprabha Saikiani is worth mentioning. The present study aims at studying the background which inspired Chandraprabha Saikiani to work and understanding her contribution to women's education. This work is based on secondary sources and analytical in nature.

Introduction

The period of British rule in India was marked by the introduction of education to women and it was indeed one of the remarkable and positive aspect of Colonial rule. In this process, Assam also did not lag behind. As in other parts of India, education was not permitted to women in early and medieval period. Of course, women belonged to noble families had access to education to certain extent. In medieval Assam, they had the opportunity to learn to read the *Ratnavali, Kirtan*

*Assistant Professor of History, Mariani College

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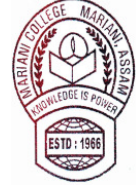
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Mariani College, Mariani



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3.3.2

Papers published per teacher in the Journals notified on UGC website during the last five years

Глава 3. Умные города в Индии

DOI 10.12709/mon.1.g3

ГЛАВА 3. УМНЫЕ ГОРОДА В ИНДИИ

Pranjal Bezborah¹

Horen Goowalla²

1. Введение
2. Осуществление Smart Cities Mission – SCM
 - 2.1. Мониторинг миссий
 - 2.2. Мониторинг на государственном уровне
 - 2.3. Мониторинг уровня города
3. Финансирование умных городов
 - 3.1. Нынешнее состояние SCM
 - 3.2. Проблемы внедрения SCM





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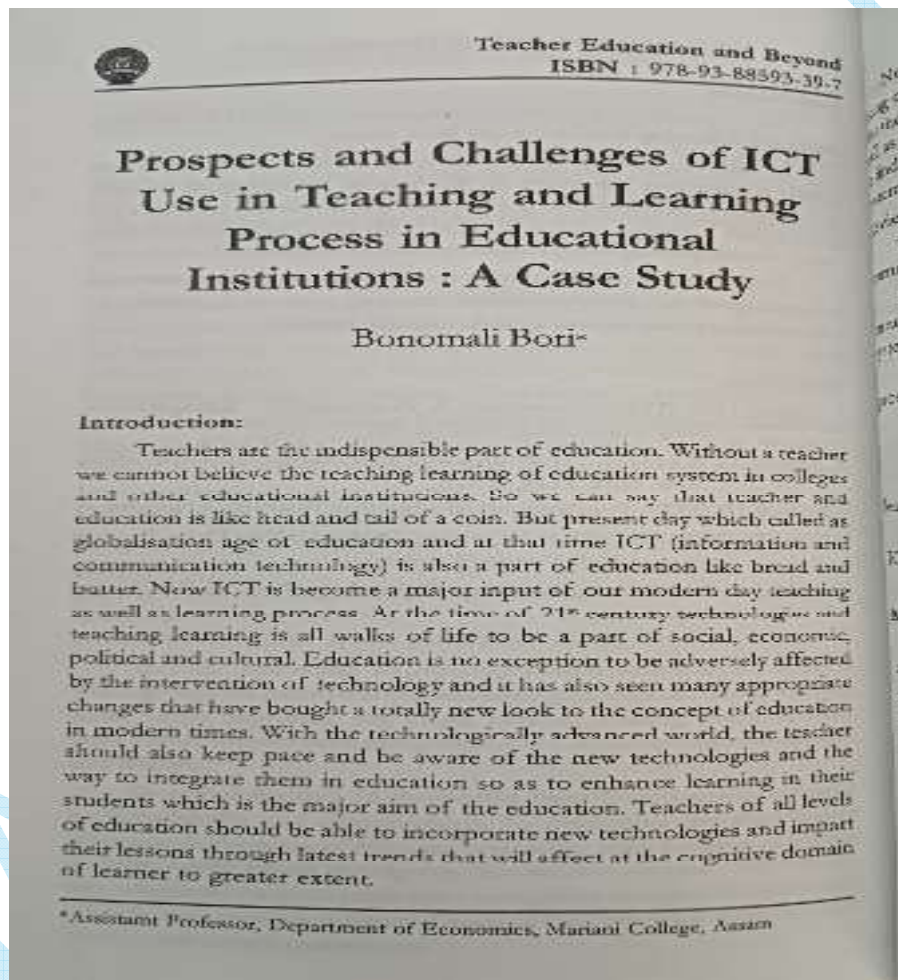


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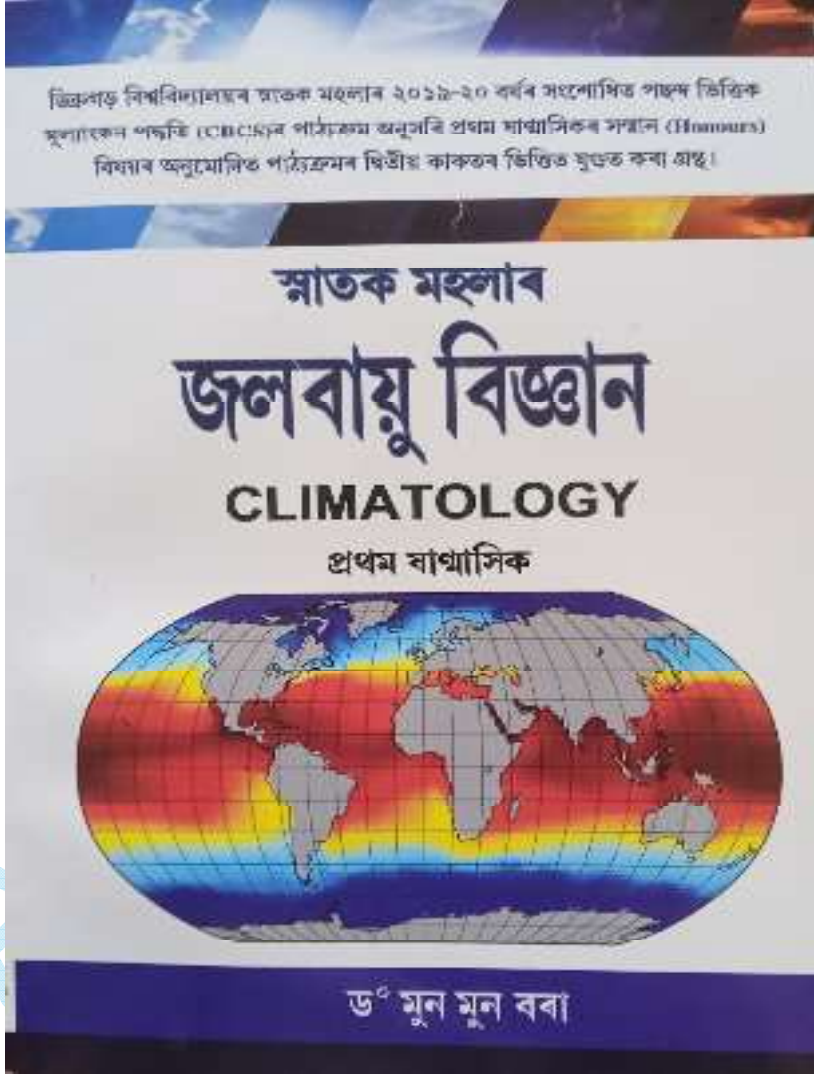
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 <p>ত্ৰিভুৱাৰ্হ বিশ্ববিদ্যালয়ৰ স্নাতক মহলাৰ ২০১৯-২০ বৰ্ষৰ সংশোধিত পাছদে ত্ৰিভিক মূল্যাকেন পদ্ধতি (CBCSE)ৰ পাঠ্যক্ৰম অনুসৰি প্ৰথম বাৰ্ষিকৰ সন্ধান (Honours) বিষয়ৰ অনুমোদিত পাঠ্যক্ৰমৰ দ্বিতীয় কাকতৰ ত্ৰিত্বিত হুত কৰা গ্ৰন্থ।</p> <p>স্নাতক মহলাৰ জলবায়ু বিজ্ঞান CLIMATOLOGY প্ৰথম বাৰ্ষিক</p> <p>ড° মুন মুন বৰা</p>	
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Mariani College, Mariani




Principal
Mariani College, Mariani



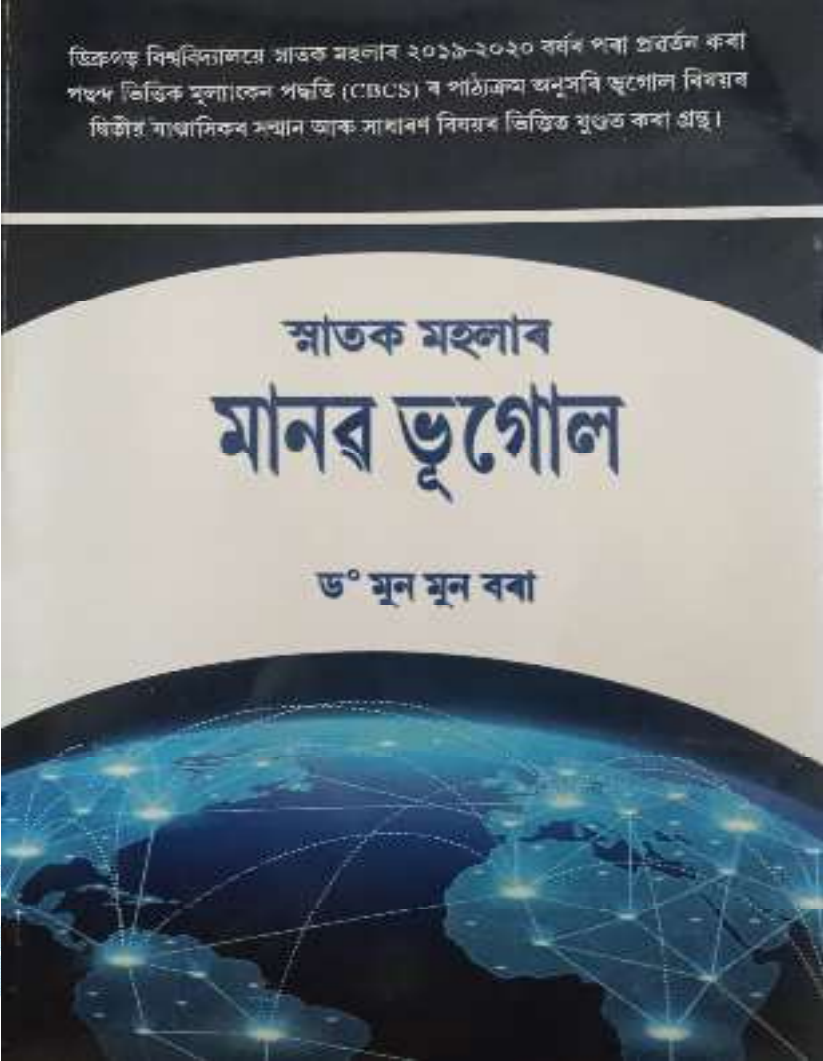
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<p>ডিব্ৰুগড় বিশ্ববিদ্যালয়ে স্নাতক মহলাৰ ২০১৯-২০২০ বৰ্ষৰ পৰা প্ৰবৰ্তন কৰা পঞ্চম ত্ৰিভূক্ত মূল্যায়ন পদ্ধতি (CBCS) ৰ পাঠ্যক্রম অনুসৰি ভূগোল বিষয়ৰ দ্বিতীয় সাপ্তাহিকৰ স্থান আৰু সাধাৰণ বিষয়ৰ ত্ৰিভূক্ত বুজত কৰা গ্ৰন্থ।</p> 	
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COORDINATOR, IQAC CELL
Mariani College, Mariani




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<p style="text-align: right;">117</p> <p style="text-align: center;"><i>Host-Pathogen Interactions: A Molecular Approach (2009) : 117-126</i> <i>Editor : Sangita Sakai and Bikash Das Prasad</i> <i>Taylor & Francis's Printer and Publishers, New Delhi - 110 002</i></p> <p style="text-align: center;">Chapter 14 Mapping of resistance genes Surojit Sen^a and Sunayana Rath^b</p> <p style="text-align: center;">^a<i>Department of Zoology, Mariani College, Mariani-781634, Jorhat, Assam.</i> ^b<i>Department of Biochemistry & Agricultural Chemistry, Assam Agricultural University, Jorhat, Assam.</i></p> <hr/> <p>Crops have been facing tremendous biotic and abiotic stresses causing significant yield loss across the world. To meet the challenge, plants have evolved with naturally occurring resistance in them. The interaction between host and the pressure by stress has paved the path of evolution of dominant and quantitative subdominant R genes among the population which were favored by natural selection.</p> <p>Resistance (R) genes are usually dominant but may be sometimes recessive and play a key role in immune responses of plants. Most identified R genes are polymorphic in plant populations. They exist naturally in plant population and have been exploited by humans since early agricultural practices. Selection made during domestication favored the dominant R genes to acquire full resistance. But these resistance breaks within a short period of time. On the contrary, the partial resistance provided by recessive R genes was found to be quantitative and more durable.</p> <p>The idea of searching resistant gene for disease resistance in plants started in early 1992, when Hm1 from maize (<i>Zea mays</i>) was first isolated and cloned in maize and since then a number of R genes have been identified. Hm1, encodes an enzyme that detoxifies <i>Heterosporium carbonum</i> (HC) toxin from the fungal pathogen <i>Cochliobolus carbonum</i> (Jehal and Briggs, 1992). This had led to a series of R gene discovery for example, Pto from tomato (<i>Solanum lycopersicum</i>) (Martin <i>et al.</i>, 1993), and Cf-9 from tomato (Jones <i>et al.</i>, 1994), N from tobacco (Whitham <i>et al.</i>, 1994).</p>	
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<p style="text-align: right;">127</p> <p style="text-align: center;">Host-Pathogen Interaction: A Molecular Approach (2020) : 127-136 <i>Editor : Sangita Saini and Bishun Deo Prasad</i> Today & Tomorrow's Printers and Publishers, New Delhi - 110 002</p> <p style="text-align: center;">Chapter 15 Pyramiding and cloning of R genes Surojit Sen¹ and Sunayana Rathi² ¹<i>Department of Zoology, Mariani College, Mariani-785634, Jorhat, Assam.</i> ²<i>Department of Biochemistry & Agricultural Chemistry, Assam Agricultural University, Jorhat, Assam.</i></p> <hr/> <p>Gene pyramiding is defined as a method of transferring multiple desirable genes/QTLs from multiple parents into a single genotype. It is a breeding technique which assembles several genes with known effect on target trait. The technique is helpful in conferring broad spectrum resistance against different stresses and races of pathogens. Objectives of gene pyramiding is to enhance the trait performance by combining two or more complementary genes, supplementing the deficits by introgression of genes from other sources, increasing the durability of resistance and broadening the genetic basis of released cultivars. The rationale behind gene pyramiding is that if two or more genes are stacked into a single variety, it is less likely to lose both resistant genes at the same time or a pathogen will develop resistance to both genes.</p> <p>Designing a gene pyramiding strategy</p> <p>The ultimate objective of a gene pyramiding program is to generate an ideal genotype having all desirable genes brought from various sources. Successful gene pyramiding involves three steps (Figure 1):</p> <ol style="list-style-type: none"> 1. Identification/selection of parents containing the desirable genes (founding parents). 2. Pedigree step, which involves assembling single copy of (heterozygous) of the targeted genes (g1, g2, g3, g4, g5 and g6 in 	
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<p style="text-align: right;">165</p> <p style="text-align: center;"><i>Host-Pathogen Interaction: A Molecular Approach (2006): 165-174</i> <i>Editor : Sangita Saha and Bikas Das Prasad</i> <i>Today & Tomorrow's Printers and Publishers, New Delhi - 110 002</i></p> <p style="text-align: center;">Chapter 18 Marker-aided selection Sunayana Rathi¹ and Surojit Sen² ¹<i>Department of Biochemistry & Agricultural Chemistry,</i> <i>Assam Agricultural University, Jorhat, Assam.</i> ²<i>Department of Zoology, Mariani College, Mariani-785634,</i> <i>Jorhat, Assam.</i></p> <hr/> <p>Agriculture relies heavily on the genetic diversity of crop plants. Ever since the very beginning of agriculture (more than 10,000 years ago), during the process of domestication and cultivation of crop plants, a wealth of genetic diversity has been utilized and partly preserved. It is estimated that not even 15 percent of the potential diversity has been utilized. Thousands of valuable allelic variations of traits of economic significance remain unutilized in nearly all crop plants. These can be discovered and effectively used to meet the existing and emerging challenges that threaten the world food security. Sadly, this genetic wealth is being eroded due to neglect and over-exploitation. Developmental activities and exploitive land-use planning are destroying natural habitats, and modern varieties are replacing native species and landraces, resulting in a reduction of varietal diversity. Major crop species (rice, wheat and millet) suffered the most during the green revolution. In order to successfully meet future food requirements, it is necessary to manage the continuing genetic erosion and address the issues of genetic conservation and optimum utilization of what remains of the genetic diversity of important crop plants.</p> <p>The basic characteristic of life is its unlimited diversity. This biodiversity is the outcome of natural evolution, which has been going on for the last 3.5 billion years when life first arose on this planet. Plant and animal breeders introduced desirable genes and eliminated undesirable ones slowly, altering in the process the underlying heredity. With the emergence</p>	
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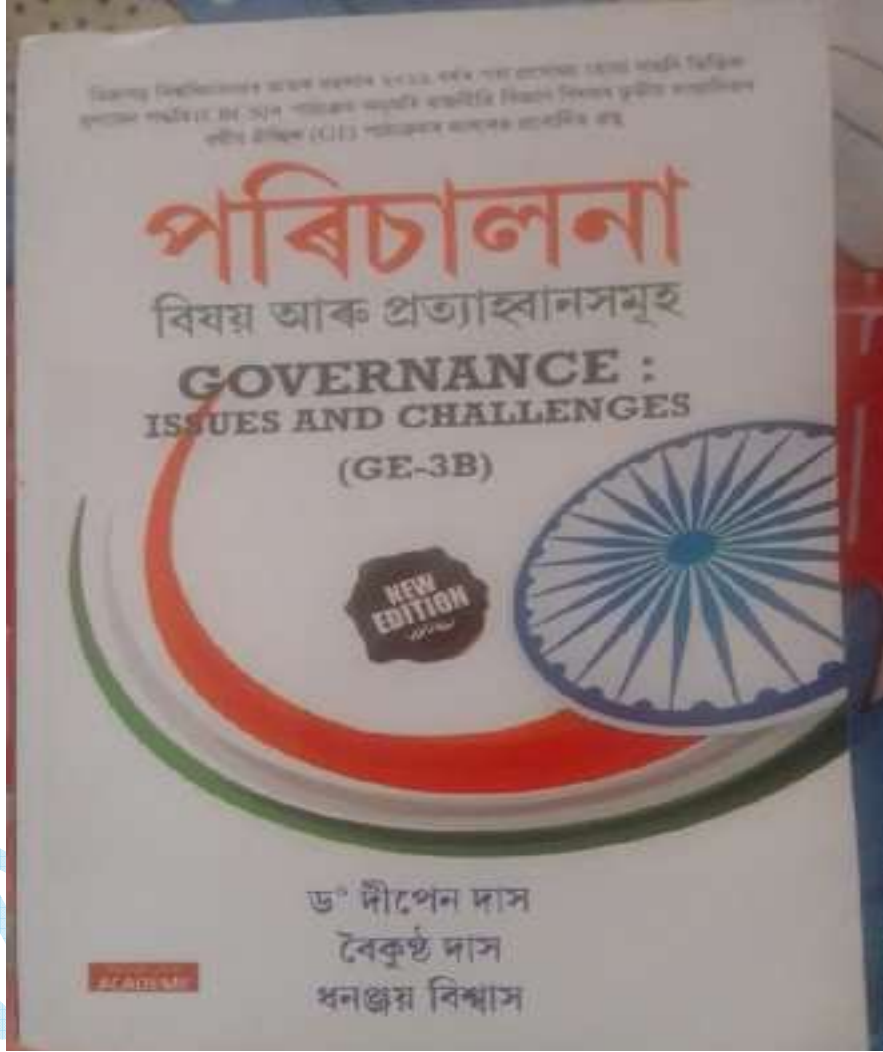
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<div style="text-align: center;"> <p>Journal Women Cell, Lundung College Unit ISSN-2277-6540 Vol. 11, August - 2021, pp-75-78</p> <p>সম্মান মনুষ্যের জীবন ও মননে দেশভাষ্যের প্রতিফলন : নির্দিষ্ট বয়স অবসরকে একটি অধ্যয়ন</p> <p>জনস্রী: অলম্বারী, সহকারী অধ্যাপক, বাগা বিদ্যালয়, মতিচাঁদ মহাবিদ্যালয়, যশোর</p> <p>সংক্ষেপ</p> <p>এক জগতের সঙ্গে জীবন মনুষ্যের সাময়িক ও অস্থায়িক মিলনের জড়িত হয়ে। দেশভাষ্যের সঙ্গে মানুষের মননে মিলনের জড়িত হয়ে। মনুষ্যের জিও-মর্টি, মনুষ্যের মননে, অর্থাৎ পরিষ্কার সফল কিছু হওয়ার মিলনের জড়িত হয়ে। মনুষ্যের মননে দেশভাষ্যের মননে মিলনের জড়িত হয়ে। মনুষ্যের মননে দেশভাষ্যের মননে মিলনের জড়িত হয়ে।</p> <p>ইতি শব্দ : দেশভাষ্য, জীবন মনুষ্য, দেশভাষ্য, দেশভাষ্য, উন্নয়ন, প্রতিফলন।</p> <p>১. সূত্র :</p> <p>দেশভাষ্যের প্রত্যয় সমস্ত ভারতবর্ষে পড়লেও তার সবচেয়ে বেশি মূল্য দিতে হলেই পড়াশুনা ও জীবনে। দেশভাষ্যের জীবনে মনুষ্যের মননে দেশভাষ্যের মননে মিলনের জড়িত হয়ে। ১৯৭৬ সালের আগের মনুষ্যের মননে মিলনের জড়িত হয়ে।</p> <p>১৯৭৭ সালে দেশভাষ্যের পর মনুষ্যের মননে মিলনের জড়িত হয়ে। মনুষ্যের মননে মিলনের জড়িত হয়ে। মনুষ্যের মননে মিলনের জড়িত হয়ে।</p> <p>দেশভাষ্যের অলম্বারী মনুষ্যের মননে মিলনের জড়িত হয়ে। মনুষ্যের মননে মিলনের জড়িত হয়ে। মনুষ্যের মননে মিলনের জড়িত হয়ে।</p> <p>এই সমস্ত মনুষ্যের মননে মিলনের জড়িত হয়ে। মনুষ্যের মননে মিলনের জড়িত হয়ে। মনুষ্যের মননে মিলনের জড়িত হয়ে।</p> </div>	
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Mariani College, Mariani



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<p style="text-align: center;"><i>Online Teaching-Learning: Issues and Challenges - Baden Barman & Kankana Baidya</i> 63</p> <p style="text-align: center;">Challenges of Online Education for Students in Rural Areas of Kamrup District, Assam</p> <p style="text-align: center;">Mr. Chinmoyee Borpujari Research Scholar, Gauhati University, Guwahati-781034, Assam Email: chinmoyeeb@gmail.com</p> <p style="text-align: center;">& Ms. Manshumi Mahanta Assistant Professor, Department of Mathematics, Saraighat College, Assam Email: maaha.mahanta@gmail.com</p> <p style="text-align: center;">Abstract</p> <p><i>In the current scenario, the global pandemic has led to the adoption of new education strategies. In urban areas teachers and students often make use of alternate learning, while in rural areas it is difficult to achieve. In rural areas, the students lack facilities and opportunity to participate in E-learning mode, but E-learning has now become an integral part of learning during the 21st century and especially during the Covid-19 period. In addition to sophisticated information communication technology, the computer-based digital innovations like web conferencing, videoconferencing, etc. have played a decisive role in academic and professional approaches to knowledge-based interaction between teachers and students. It has also created the need to tackle the catastrophic events, which are foreseen as the "new normal", unexpected and once in a century. But the teachers and students of rural areas have faced lots of inconvenience to switch over from traditional teaching-learning mode to currently demanding e-learning mode. Obviously, there have been stringent restrictions on students living in rural areas. The present study is an attempt to study the problems relating to the teaching-learning process faced by students of the rural areas of Kamrup district, Assam during the covid-19 pandemic scenario and to explore necessary steps toward mitigation of this educational gap.</i></p> <p>Keywords: Challenges of Online Learning, Learning from Rural Areas, Learning during Pandemic.</p> <p>1. Introduction: The coronavirus crisis has compelled all key sectors to switch their activities online—the education sector is no exception. With lockdowns being imposed across the world, schools and higher education institutions have been shut down to protect students and prevent contagion. Online learning platform in the context of e-learning aims at combating for citizens of educational system questions of equity, equality through access to educational opportunities. Students worldwide have faced these problems relating to online mode of education where lack of proper technological infrastructures and other facilities have restricted the learners from efficiently gaining access to the teachers and online classes.</p> <p>2. Objectives: The objectives of the study is to a) Study the problems relating to the teaching learning process faced by students of the rural areas of Kamrup district, Assam during the pandemic scenario. b) Explore necessary steps toward mitigation of this educational gap.</p> <p>3. Methodology: In this study both primary and secondary data were taken into consideration. The primary data were collected through questionnaires. During actual visits to three remote villages of Kamrup district, the questionnaires were randomly distributed to the students and parents and the responses were collected. The results of these questionnaires are tabulated and presented in the present study. A total of 70 samples were taken this way.</p> <p>How to Cite this Article Borpujari, C., & Mahanta, M. (2021). Challenges of Online Education for Students in Rural Areas of Kamrup District, Assam. In Baden Barman & Kankana Baidya (Eds.), <i>Online Teaching-Learning: Issues and Challenges</i> (pp. 63-68). Rafat Barman.</p>	
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<p style="text-align: center;">মাজুলীৰ লোক-সমাজত প্ৰচলিত জন্ম সম্পৰ্কীয় লোকাচাৰ</p> <p style="text-align: center;">ড° বাণী বৰা</p> <p>আৰম্ভণি :</p> <p>অসমৰ নববৈষ্ণৱ ধৰ্মৰ পৱিত্ৰ স্থান, শংকৰী সংস্কৃতিৰ প্ৰাণকেন্দ্ৰ মাজুলী বিশ্বৰ সৰ্ববৃহৎ অনুৰপতিসুৰ্য-দ্বীপ। অৰ্থমতে মাজুলী অসম নিখনসকলৰ এটা সমৃদ্ধি আৰু যোৰহাট জিলাৰ এক মহনুমা।</p> <p>মাজুলী শব্দৰ আভিধানিক অৰ্থ হ'ল : বি. মাজুলী চাপৰি, কেউফালে পানীৰে আবৃত ঠাই, উপদ্বীপ, an island surrounded by water। এমতায়ত শতক-২২শো উত্তৰপূব হৈ থকাৰ বাবে মাজুলীক শমাৰ বা লখিমীৰ উৰাল (মাজুলী লখিমী) - জুলি-উৰাল বা লখিমীৰ জোলোতা বুলি কোৱা হয়।</p> <p>মাজুলীৰ চাৰিওফালে এমতায়ত — উত্তৰে লোহিত বৈকটীয়া নদী, লখিমপুৰ জিলা আৰু ছোণিতপুৰ জিলাৰ কিছু অংশ; দক্ষিণে ব্ৰহ্মপুত্ৰ নদী, যোৰহাট মহনুমা আৰু গোলাঘাট পূবে যোৰহাট মহনুমা আৰু শিৱসাগৰ জিলা; পশ্চিমে লোহিত নদী, সোৱণশিৰি উপমে আৰু ব্ৰহ্মপুত্ৰ নদী।</p> <p>বিভিন্ন জাতি জনজাতিৰ সহাবস্থানে মাজুলীৰ সাংস্কৃতিক ক্ষেত্ৰত এক সুন্দৰ বাতাবৰণ গঢ়ি তুলিছে। সহানুষ্ঠানৰ অনানুষ্ঠানিক শিক্ষাৰ লগতে প্ৰাথমিক শিক্ষাৰ লগে মহাবিদ্যালয়ৰ শিক্ষালৈকে বহুতো আনুষ্ঠানিক শিক্ষানুষ্ঠান মাজুলীত প্ৰতিষ্ঠিত হৈ আছে। তদুপৰি এখন বুৰিহাটী প্ৰশিক্ষণ কেন্দ্ৰ, এখন প্ৰায়োগিক প্ৰশিক্ষণ প্ৰতিষ্ঠান, এক বৃহৎ পৰিমাণৰ সংগীত বিদ্যালয়, ভালেমান চিত্ৰকলাৰ বিদ্যালয়ো আছে।</p>	
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<p style="text-align: center;">মাজুলীৰ বিবাহ অনুষ্ঠান</p> <p style="text-align: center;">ড° বাণী বৰা</p> <p>পৃথিবীৰ সৰ্ববৃহৎ নদীসীপ হিচাপে স্বৰ্গত মাজুলী অসমৰ সাংস্কৃতিক জগতৰ এক উল্লেখযোগ্য নাম। মাজুলী অসমৰ এখন জিলা আৰু অসম বিধানসভাৰ এক সমষ্টি। এই মাজুলীত শতাব্দী সাংস্কৃতিক প্ৰাণকেন্দ্ৰ চাৰিও সংস্কৃতিৰ কেইবাওটা সৰু অতিষ্ঠিত হৈ আছে। এই সৰু দুটামৰ ভিতৰত আউনী ও.সি, গড়মুৰ, দক্ষিণপাট, কমলাবাৰী, ভোলাপুৰ, বেঙেনাও.সি, গামহাৰী সত্ৰই প্ৰধান। বৰন কবলত পৰি মাজুলীৰ ভালেকেইখন সত্ৰ বৰ্তমান নিষ্ক্ৰিয় হৈ পৰিল। পত্নানুষ্ঠানৰ বিভিন্ন সাংস্কৃতিক কৰ্মৰ মিয়ে দেশ-বিদেশৰ বিভিন্ন স্ৰেণীৰ মান আকৰ্ষণ কৰিবলৈ সক্ষম হৈছে। বৰ্তমান মাজুলী দেশী-বিদেশী স্ৰেণীৰ এক গৰমিত ক্ষেত্ৰত পৰিণত হৈছে। বিহ, বস, ফাকুৰ মাজুলীৰ উল্লেখযোগ্য উৎসৱ।</p> <p>মাজুলীত বিভিন্ন আৰ্হি জনজাতিৰ সহবহুত্ব দেখা যায়। সম্ভ্ৰান্তৰ শিক্ষাৰ পথতে প্ৰাথমিক পৰ্যায়ৰ পৰা মহাবিদ্যালয়ৰ শিক্ষালৈকে ভালেকেইখন আনুষ্ঠানিক শিক্ষানুষ্ঠান মাজুলীত প্ৰতিষ্ঠিত হৈ আছে। তদুপৰি বুনিয়াদী প্ৰশিক্ষণ কেন্দ্ৰ, প্ৰত্যেকগৰাকী প্ৰশিক্ষণ প্ৰতিষ্ঠান, সংগীত বিদ্যালয়, উদ্ভাৱনৰ বিদ্যালয়ো আছে। বৰ্তমান মাজুলীত মাজুলী সাংস্কৃতিক বিশ্ববিদ্যালয় প্ৰতিষ্ঠা কৰা হৈছে।</p> <p>মাজুলীৰ মাত্ৰায়ত আৰু পৰিহৰণ ব্যৱস্থা বৰ্তমানমো বন উন্নতমানৰ নহয়। জলপথেহেই মাজুলীৰ সগত অন্যান্য ঠাইৰ ওলমৰ সংযোগ পথ আছিল। বৰ্তমান তেজপুৰ, লখিমপুৰ হৈ মাজুলীলৈ আৰু সোমাজি-লুৰাখানৰ পৰা মাজুলীলৈ স্থলপথেৰে অহা-যোৱা কৰিব পাৰি। তদুপৰি কমলাবাৰী, দক্ষিণপাট, শালমৰ, অফলা আদি ঘাটলৈ স্থলপথেৰে যোৱাটোৰ পৰা মাজুলীলৈ দৈনিক অহা-যোৱা কৰিব পাৰি।</p>	
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<p>Short Title: <u>Orchid Pollination in India</u> 1</p> <hr/> <p>Plagiarism Checker X Originality Report Similarity Found: 6% Date: Monday, August 30, 2021 Statistics: 179 words Plagiarized / 3191 Total words Remarks: Low Plagiarism Detected - Your Document needs Optional Improvement.</p> <p>1 Studies on Orchid Pollination in India: A Review</p> <p>S. K. Chaturvedi and Bhaskar Buragohain* 23-19/1, C. Y. Chintamani Road, Darbhanga Colony, Allahabad- 211002 *Department of Botany, Mariani College, Mariani, Assam- 785 634. India E- mail: sunchat1@rediffmail.com</p> <p style="text-align: center;">Chapter Index</p> <p>1 Studies on orchid Pollination in India: A Review..... 1</p> <p>1.1 Introduction.....2 1.2 Autogamy in Indian orchids.....2 1.3 Biotic Pollination through Insects in Indian Orchids.....3 1.4 Conclusions.....9 1.5 References.....9</p> <p style="text-align: center;">Abstract</p> <p>The Orchids exhibit a specialized floral morphology in possessing column with male and female reproductive organs viz. pollinarium and stigma situated at apical and sub-apical position. The Indian orchids exhibit flowers with vivid colours except pure red. The main pollinators of orchids in India belong to</p>	
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<p style="text-align: center;"><i>4th International Conference on Optics, Photonics and Laser (ICOPAL 2020)</i> 21-25 October 2021, Dhaka, Greece</p> <p style="text-align: center;">(03/9)</p> <p style="text-align: center;">Multiple Filamentation at Different Orders of a Super Gaussian Beam</p> <p style="text-align: center;">S. Hazarika¹, A. Das² and C. Hazarika² ¹Department of Physics, Assam University (Diphu Campus), Diphu, Karbi Anglong, Assam, India ²Department of Physics, Mariani College, Mariani, Assam, India Tel: - 91-9435155925 Email: hazarika@assam.ac.in</p> <hr/> <p>Summary: The propagation of a super-Gaussian laser beam in chalcogenide glass is investigated by numerically solving nonlinear Schrödinger equation with split-step beam propagation method. Keeping the input power of the laser fixed at $40 P_{cr}$, $80 P_{cr}$ and $100 P_{cr}$, the order of the beam is raised to study the effect of beam order on the filament pattern, threshold power, length of filamentation and the number of filaments formed as the beam spatially evolves to form multiple filaments. It is observed that on raising the beam order is fixed, the deterministic nature of the filament pattern changed, whereas threshold power and length of filamentation decreased. The number of filaments formed, however, increased with beam order. All these properties showed linear dependence on beam order, indicating a possible role of beam order in control of self-guided properties of super-Gaussian laser beam.</p> <p>Keywords: Multiple filaments, Super-Gaussian beam, beam order, Nonlinear Schrödinger equation, Self-guided properties.</p> <p>1. Introduction</p> <p>The nonlinear Schrödinger equation (NLSE) has been extensively used to study temporal and spatial behavior of electromagnetic field in bulk nonlinear medium that results in self-action effects [1, 2], which includes multiple filamentation. In one of our earlier works [3], spatial evolution of a super-Gaussian laser beam was studied in chalcogenide glass by solving NLSE numerically with split-step beam propagation method. The results revealed that the process of multiple filamentation can be accelerated through use of externally induced random noise and that noise can also be utilized to regulate properties of self-guided laser beam.</p> <p>In the expression for Gaussian beam</p> $\psi(x, y) = \psi_0 \exp[-(x^2 + y^2)/a^2] \quad (1)$ <p>$a = 2a_0(m)$ is a positive integer gives the order of the beam. A value of $q = 2$ defines a super-Gaussian beam. In this present work the super-Gaussian laser beam is investigated in an identical manner as reported in [3], but for varying beam orders and zero induced random noise level.</p> <p>2. Method</p> <p>A super-Gaussian laser beam with input power ~ 10 times critical power (P_{cr}) evolves into ring profile and breaks into multiple filaments in presence of noise. The ring profile formation is explained considering negligible diffraction at beam power $P > P_{cr}$ for which the NLSE is approximated neglecting diffraction [4]. But when diffraction is considered, the NLSE describing the evolution of a beam propagating in the z-direction having a slowly varying complex envelope</p> $\psi(x, y, z) \text{ with a given initial envelope } \psi(x, y, 0) \text{ is given by:}$ $\frac{\partial \psi}{\partial z} = \frac{i}{2k_0} \nabla_{\perp}^2 \psi - i \frac{2\pi}{\lambda_0} \psi ^2 \psi, \quad (2)$ $\text{with } \nabla_{\perp}^2 = \left(\frac{\partial^2}{\partial x^2} + \frac{\partial^2}{\partial y^2} \right), \quad (3)$ <p>and R_0, the linear wave vector, x and y in ∇_{\perp}^2 are transverse co-ordinates and z is the longitudinal co-ordinate. The first term of the R.H.S of Eq. (2) represents the diffraction of the beam in transverse direction and second term acts as a source to generate different modes of the electric field due to the nonlinear response of the medium. For obtaining numerical solution of NLSE using the split-step beam propagation method NLSE is written in operator form as</p> $\frac{\partial \psi}{\partial z} = (\hat{D} + \hat{S}) \psi, \quad (4)$ <p>where \hat{D} is the linear differential operator that accounts for diffraction and \hat{S} is the inhomogeneous operator [5].</p> <p>3. Results and Discussion</p> <p>Simulations performed in MATLAB show splitting of the super-Gaussian beam into multiple filaments with at least four filaments located symmetrically at the corners of the square beam profile, with and without input noise. The patterns are deterministic in nature; a pre-specified to control self-guided laser properties. These deterministic pattern undergo change when the order of the super-Gaussian beam is raised (for $m = 3, 4$) in absence of input noise. Filaments start</p>	
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6

Bioinformatics Approaches to Improve and Enhance the Understanding of Plant-Microbe Interaction: A Review

Surojit Sen*
Mariani College

Sunayana Rathi*
Assam Agricultural University

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6.1 Introduction

Increasing the crop yield and productivity is the primary goal of all agricultural activities. In the present scenario of global warming, optimisation of plant production system for better yield in areas of limited fertility is targeted. The growth and productivity of plants depend much on the interaction with the microbes present in their immediate environment. Plants share their habitat with complex microbiota that include bacteria, eukaryotes, fungi, archaea, and viruses (Aglar et al., 2016). The complexity is determined by the shared environment and the biotic and abiotic interactions involved at different levels. The outcome of host-parasite interaction depending on the resources available may be positive, neutral,

* Corresponding author's email: surojit068@yahoo.co.in & sunayana.rathi@assau.ac.in

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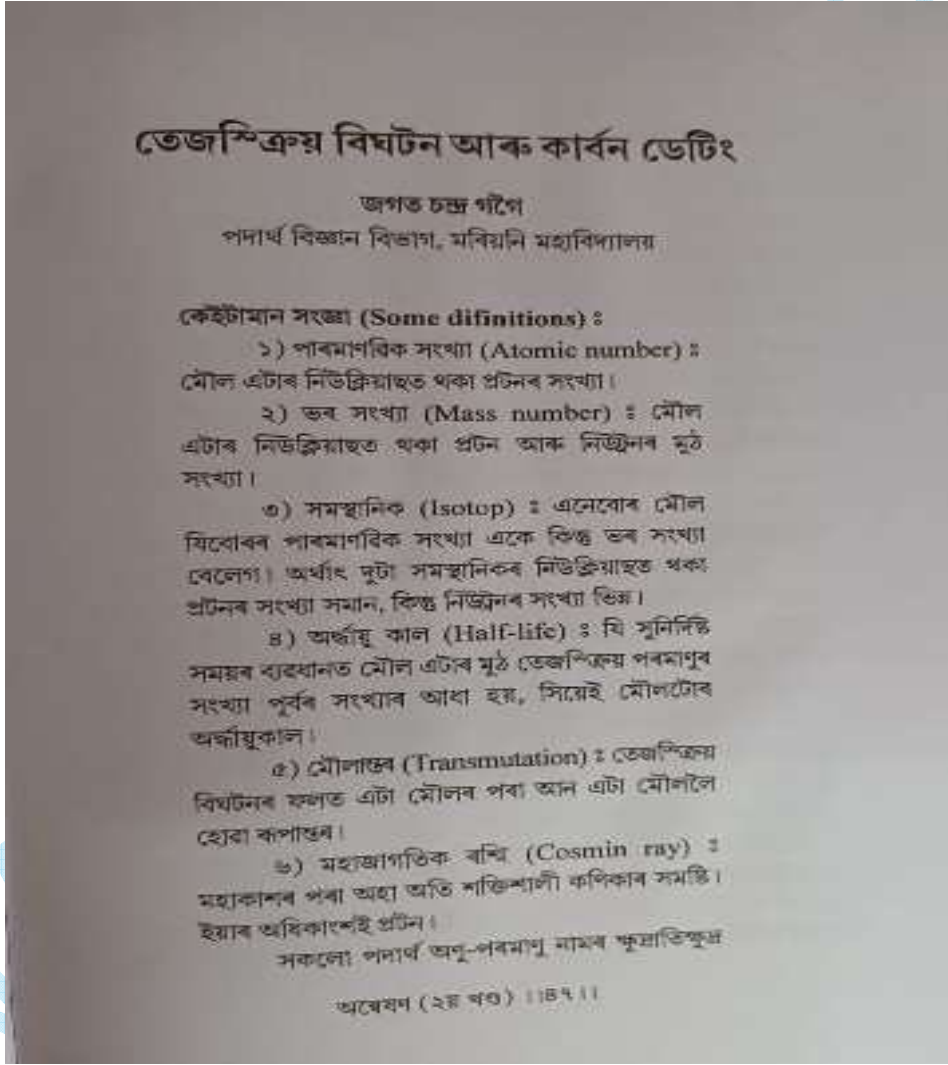

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3.3.2	Books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years
<p>ISBN No. 978-93-5288-241-0</p> <p>An Empirical Study on Investment and Savings Habits of Individual Households with Reference to Guwahati City</p> <p>Alimpiya Bordoloi</p> <p><i>Abstract : Investment is one of the foremost concerns of every individual investor as their small savings of today are to meet the expenses of tomorrow. Variety of investment avenues is available for an investor to invest their hard earned money. Various factors influence the investment decisions of an investor. Through this paper an attempt has been made to study on the investment and savings habits of 100 household in greater Guwahati City.</i></p> <p><i>Keywords: Investment avenues, savings habits, investment decisions</i></p> <p>INTRODUCTION :</p> <p>Savings and investment play a major role in economic development of any country and primary objective of all government policy has been to promote savings and capital formation in the country. Three variables that measure the growth of an economy are income, savings and investments. Money saved is of no use if it is not invested in some productive areas. It enhances the national product or per capita income and raises the standard of living of the investors. Savings and investment by individuals are important both for personal financial well being and for economic growth. Earning money is only half the equation for achieving financial independence. Effectively putting money to work is equally important. Financial services sector has turned out to be extremely diversified offering the investor with a widespread variety of investment opportunities.</p> <p>An investment is a sacrifice of current money or other resources for future benefits. Investment is simple because it just means keeping some money aside in certain avenues so that it grows or become more valuable after a certain period of time. Again at the same time it is a difficult affair or a challenge as it tries to defy the basic human nature to spend money for enjoyment or satisfying the unlimited needs as early as possible. Our economic well being in the long run depends significantly on how wisely or foolishly we invest. Warren Buffet – one of the richest men in the world who has made his fortune of more than \$10 billion almost exclusively through investing has rightly said 'Investing is simple, but not easy.' In every life cycle stage, saving objective changes. Such change is often due to the change in age of the investors, change in level of income and sometimes due to change in occupation. Saving objective of a</p> <p><i>Assistant Professor, Department of Accountancy, Gauhati Commerce College</i></p>	
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3.3.2	Books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years
<p style="text-align: center;">A Study on Financial Inclusion with Special Reference to E-Rickshaw Drivers of Golaghat District</p> <p style="text-align: center;">Miss Ritika Agarwal Research Scholar, Centre for Management Studies, Dibrugarh University Miss Kritika Agarwal Assistant Professor, Department of Accountancy (Commerce), Mariani College</p> <p>Abstract : Financial Inclusion is considered as a critical indicator of development and well-being of a society. It is the process of ensuring use of financial services and credit facility that are needed by all the sections of the society. There are large number of people such as the weaker section and lower income groups of the society who are not even aware of the financial services and are not able to access and utilize those services provided by the financial institutions. E-rickshaw drivers are an important part of the society. As the E-rickshaw drivers are income earning people they contribute a lot towards the growth and development of an economy but still many of them fall beyond the formal financial system. The government of India is trying to include all the sections of the society under proper financial system by undertaking different initiatives. So, this paper attempts to study the awareness level of E-rickshaw drivers towards various financial products and services, the habit of banking among them and challenges faced by them towards utilization of the financial services. The nature of the study is descriptive and analytical. The data have been collected from both primary and secondary sources.</p> <p style="text-align: center;">236</p>	
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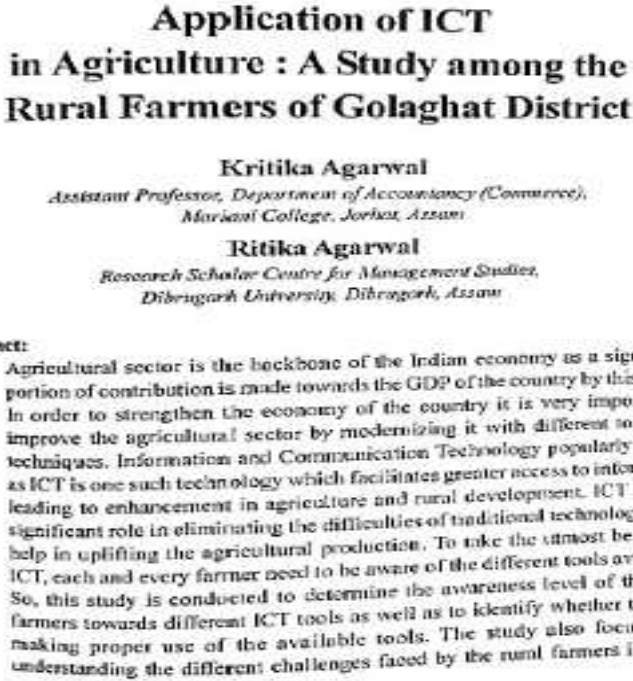
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3.3.2	Books and chapters in edited volumes/books published and papers published in national/ international conference proceedings per teacher during last five years
 <p style="text-align: center;">Application of ICT in Agriculture : A Study among the Rural Farmers of Golaghat District</p> <p style="text-align: center;">Kritika Agarwal <i>Assistant Professor, Department of Accountancy (Commerce), Mariani College, Jorhat, Assam.</i></p> <p style="text-align: center;">Ritika Agarwal <i>Research Scholar Centre for Management Studies, Dibrugarh University, Dibrugarh, Assam</i></p> <p>Abstract: Agricultural sector is the backbone of the Indian economy as a significant portion of contribution is made towards the GDP of the country by this sector. In order to strengthen the economy of the country it is very important to improve the agricultural sector by modernizing it with different tools and techniques. Information and Communication Technology popularly known as ICT is one such technology which facilitates greater access to information leading to enhancement in agriculture and rural development. ICT plays a significant role in eliminating the difficulties of traditional technologies and help in uplifting the agricultural production. To take the utmost benefit of ICT, each and every farmer need to be aware of the different tools available. So, this study is conducted to determine the awareness level of the rural farmers towards different ICT tools as well as to identify whether they are making proper use of the available tools. The study also focused on understanding the different challenges faced by the rural farmers in using</p> <p style="text-align: center;"><u>PROBLEMS & PROSPECTS OF RURAL AND AGRICULTURAL MARKETING</u> 119</p>	
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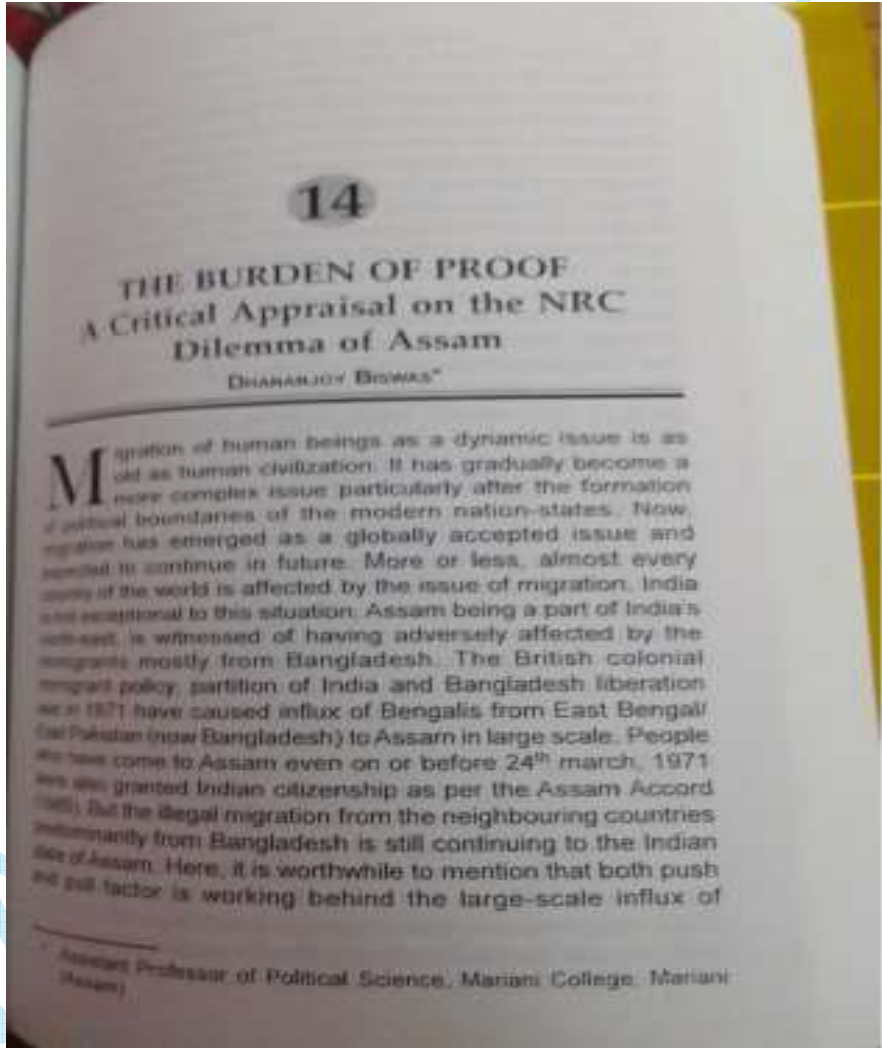
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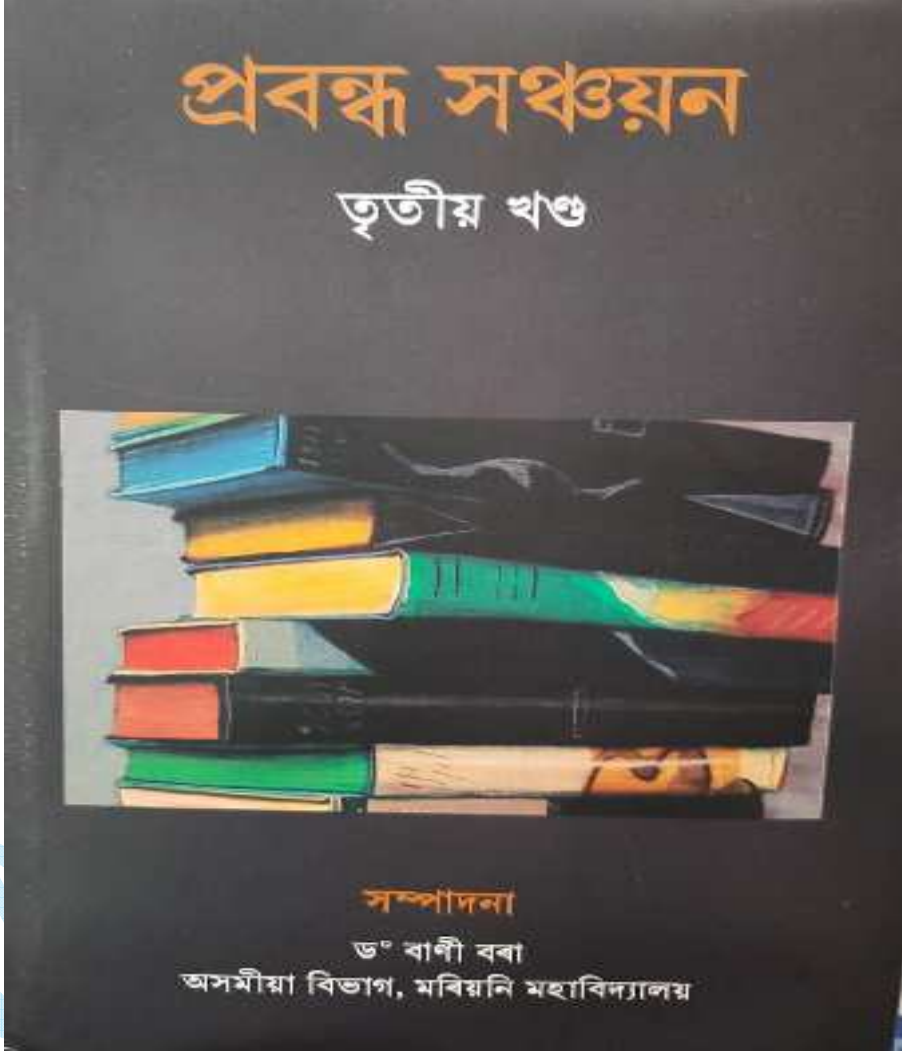

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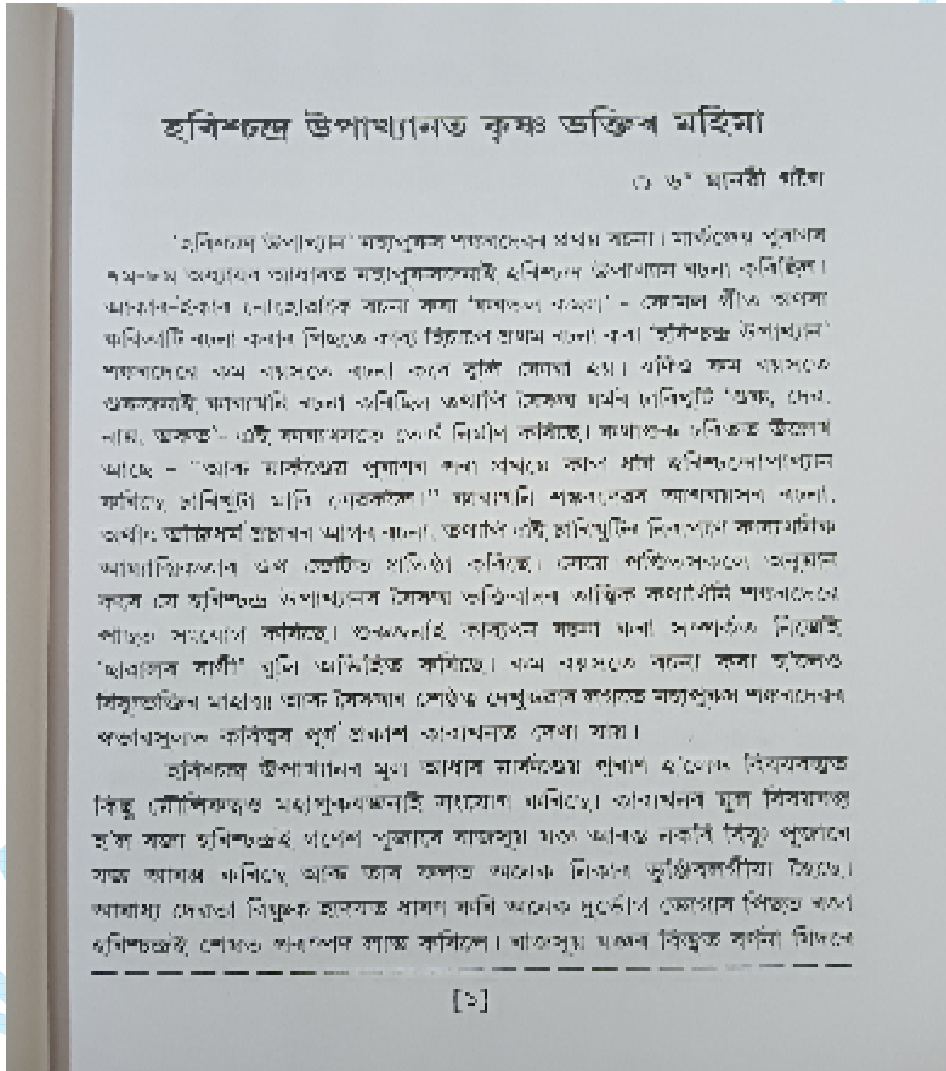
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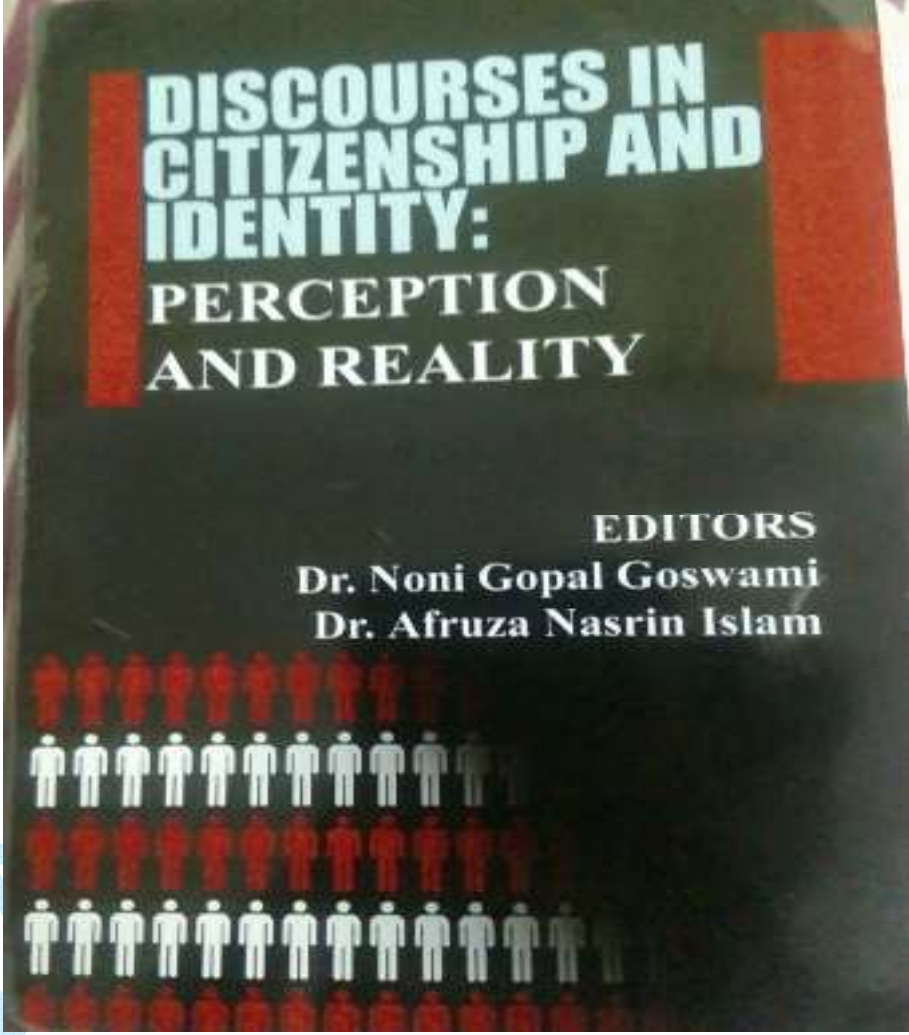
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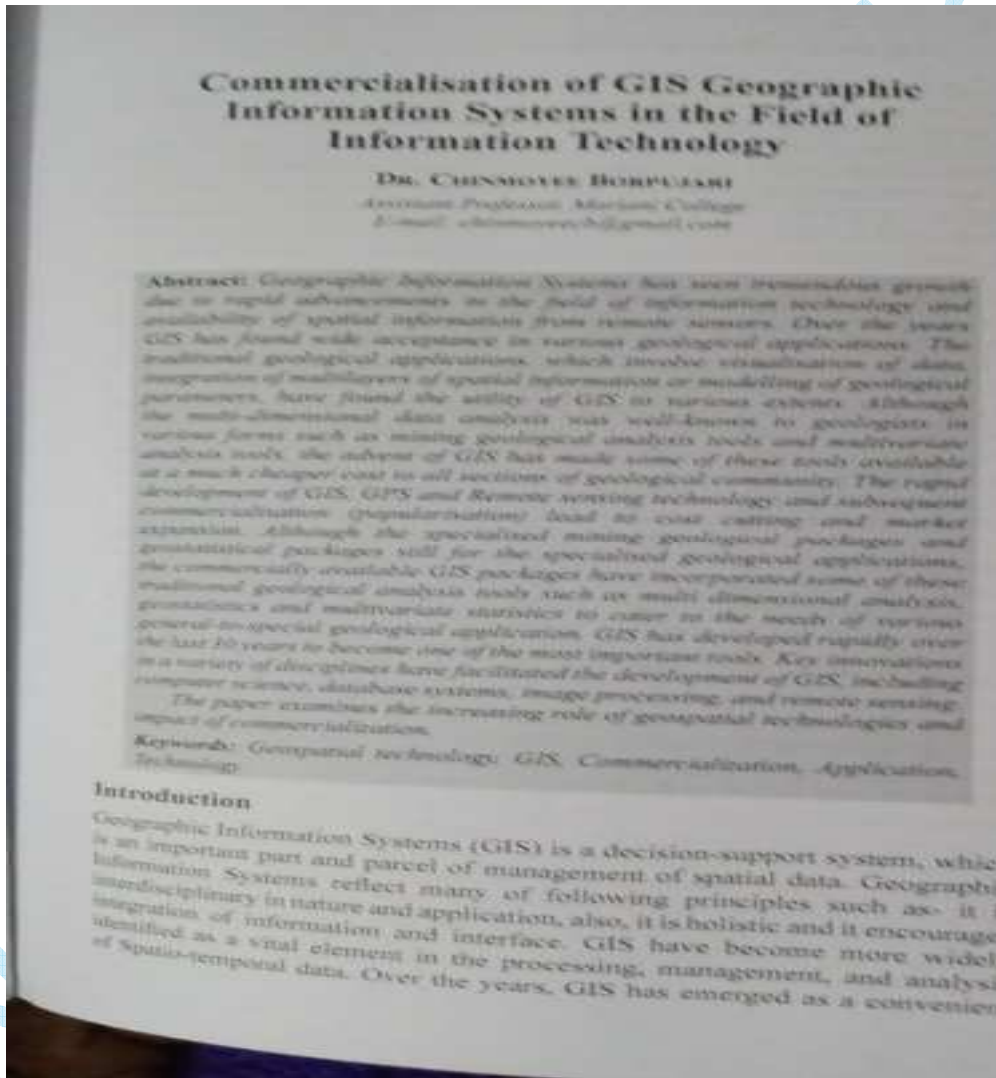


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