



গড়গাঁও মহাবিদ্যালয়  
GARGAON COLLEGE

## BOOK/BOOK CHAPTERS

2023-2024

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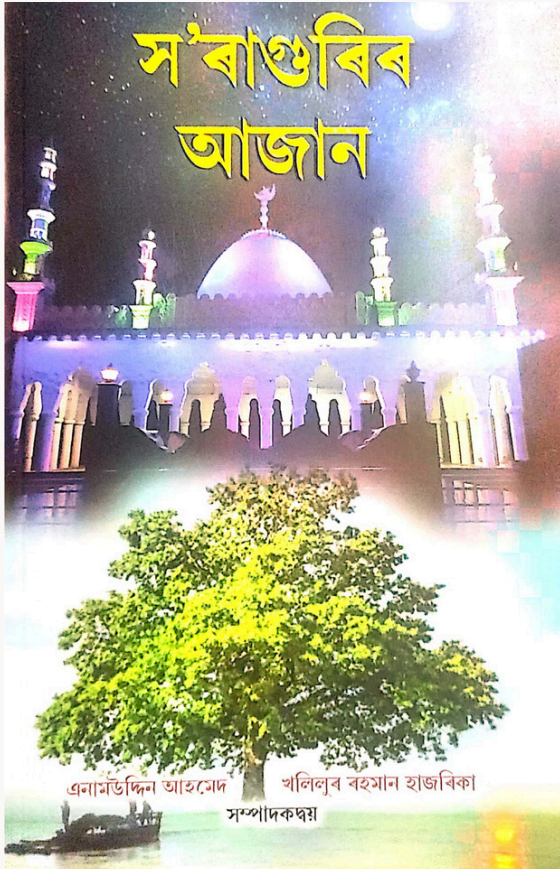


**PUBLICATIONS OF DEPARTMENT OF ASSAMESE**

NAME	TITLE (BOOK/CHAPTER)	TITLE OF THE PAPER	NAT./INT.	YEAR	ISSN/ ISBN	AFFILIATING INSTITUTE	PUBLISHER
Runjun Hazarika	The Wave of Thought. Sankardeva Borgeet : Ati Bhasatatwik Bishleshan		National	2023	978-81-959452-2-2	Gargaon College	ACTA Research Unit
Devajani Bakalilal	Soragurir Ajan. Ajan Peerar Anupam Avadan Jikir		National	2024	978-93-94167-02-5	Gargaon College	Hazarat Ajan Peer Dargah Sanmittee
Dr. Ankur Dutta	Sahitya Academy Bota Bijayini Asomiya. Shena Devir Ankuki Ek Golpa: Alusona		National	2024	978-93-92610-41-7	Gargaon College	Department of Assamese, Dibru College



# DEVAJANI BAKALIAL



**SARAGURIR AJAN** : An annual publication containing articles, write-ups especially on the life, works and teachings of Hazarat Ajan Peer, edited by Anamuddin Ahmed and Khalilur Rahman Hazarika, published by the Hazarat Ajan Peer (R) Dargah Parichalana Samiti, Saraguri, Dikhowmukh, Sivasagar on the occasion of the Annual Conference and Ziyarat held on February 3 & 4, 2024.

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## স'বাণ্ডৰিৰ আজান

হজৰত আজানপীৰ (ৰঃ) দৰগাহৰ বাৰ্ষিক মুখপত্ৰ

<p><b>সম্পাদনা সমিতি</b></p> <p>মুখ্য উপদেষ্টা শ্ৰীযুত প্ৰদীপ হাজৰিকা উপদেষ্টা আলহাজ্ব হাবনুল বখিদ শ্ৰীযুত বিপুল বৰকটকী ড° লুটফুন নাহাৰ চৈয়দ হকিমুৰ বহমান ডাঃ মুবিনুৰ বহমান সভাপতি ড° সব্যসাচী মহন্ত সম্পাদকদ্বয় এনামউদ্দিন আহমেদ, খলিলুৰ বহমান হাজৰিকা সহসম্পাদক খাইকদিন আহমেদ, আশ্ৰফুৰ বহমান সদস্য ড° উৎপল দত্ত, বুতুল দত্ত, নৰজ্যোতি ওজা, নবাব মুচতাকিম আলী, চাজিদুল ইছলাম, আবু ছায়ীদ হুছেইন, বিতুল আলী</p>	<p><b>স'বাণ্ডৰিৰ আজান</b></p> <p>প্ৰকাশক : পৰিচালনা সমিতি, হজৰত আজানপীৰ (ৰঃ) দৰগাহ প্ৰকাশ : ৪ ফেব্ৰুৱাৰী, ২০২৪চন বেটুপাত : সভাজিৎ নাথ, আবু ছায়ীদ হুছেইন অংগ সজ্জা : পংকজ গগৈ, অমৰ গগৈ গুডেচ্ছামূলক বৰঙনি ৩৫০.০০ টকা মুদ্ৰণ : বিনায়ক অফচেট, শিৱসাগৰ</p>
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## সূচীপত্ৰ

- ৬ শুভেচ্ছাবে অলপ মনৰ কথা ৷ ইমবান শ্বাহ/২১
- ৬ অসমীয়া সংগীতৰ ইতিহাসত জিকিৰ ৷ ড° অনিল শইকীয়া/২৩
- ৬ আজান পীৰ চাহেবৰ পীৰি চিলচিলা  
৷ ড° ছালিম আলি আহমেদ/৪৩
- ৬ জিকিৰ গীত নীতি-শিক্ষা ৷ ড° ভূৱনেশ্বৰ ডেকা/৫৮
- ৬ অসমত আজান ফকীৰ আৰু জিকিৰ ৷ প্ৰেম গগৈ/৬৮
- ৬ জিকিৰ আৰু জাৰীৰ বস বিচাৰ ৷ ডঃ পইনুৰুদ্দিন আহমেদ/৭৩
- ৬ অসমীয়া জিকিৰত চৰ্যাপদৰ প্ৰতিনিধি ৷ আব্দুল মালিক/৮১
- ৬ অসমত মুছলমান বসতি আৰু আজান ফকীৰৰ আগমন : এটি  
চমু অৱলোকন ৷ ড° লুটফুন নাহাৰ/৮৭
- ৬ কেন্দ্ৰবৰিৰ মুছলমান সমাজ আৰু বৰগৰীয়া পৰিয়াল  
৷ জীতেন বৰপাত্ৰগোহাঁই/৯৪
- ৬ সাম্প্ৰতিক যুৱ সমাজ আৰু আধ্যাত্মিক শিক্ষাৰ প্ৰয়োজনীয়তা  
৷ ড° সব্যসাচী মহন্ত/১০৪
- ৬ বৃহত্তৰ অসমীয়া জাতি গঠনত অসমীয়া মুছলমান সমাজৰ অৱদান  
৷ কমলজ্যোতি গগৈ/১০৭
- ৬ দৰগাহ প্ৰতিষ্ঠা ৷ চৈয়দ হকিমুৰ বহমান/১১১
- ৬ আজান পীৰ(ৰঃ)ৰ জিকিৰৰ কাব্যিক সৌন্দৰ্য আৰু সমন্বয়ৰ  
সুৰধৰনি ৷ বাহাৰউদ্দিন শইকীয়া/১১৫
- ৬ সমন্বয় ৷ ভুবন চন্দ্ৰ সন্দিকৈ/১২২
- ৬ মিলন তীৰ্থ শিৱসাগৰৰ সম্প্ৰতিৰ মিলন ৷ ড° নিৰুপমা মহন্ত/১৩২
- ৬ জাতীয় সমন্বয় আৰু অসমীয়া ইছলামিক মূলীয় কাব্য সাহিত্য  
৷ ড° সত্যকাম বৰঠাকুৰ/১৪১
- ৬ আজান পীৰৰ অনুপম অৱদান 'জিকিৰ' ৷ দেৱানী বকলীয়া/১৫৩
- ৬ জিকিৰ আৰু চুফীবাদ : এটি আলোকপাত  
৷ ড° বীতামণি বৰা/১৬১
- ৬ অসমীয়া জিকিৰত নীতি শিক্ষা আৰু মানৱীয় চেতনাৰ প্ৰকাশ :  
এটি আলোচনা ৷ বেহেনা আখতাৰ/১৬৪

## আজান পীৰৰ অনুপম অৱদান 'জিকিৰ'

দেৱানী বকলীয়া

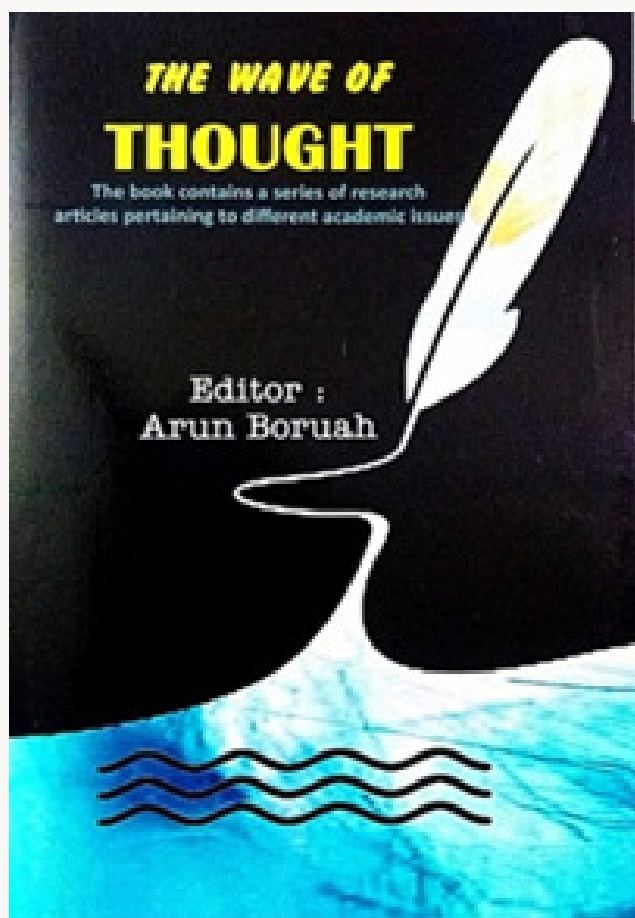
ধৰ্মীয়ভাৱাপন্ন অসমীয়া লোকগীতৰ ক্ষেত্ৰখনত আজান পীৰ প্ৰকৃত নাম শ্বাহ মিৰাণ বা শ্বাহ মিলনৰ নামত প্ৰচলিত ইছলাম ধৰ্মৰ বাণী প্ৰকাশক তথা আল্লাহৰ মাহাত্ম্যসূচক গীত জিকিৰসমূহৰ এক বিশেষ স্থান আছে। মন কৰিবলগীয়া যে লোকসাহিত্য তথা লোকগীতৰ সাধাৰণ বৈশিষ্ট্য হৈছে - এইসমূহৰ ৰচক, ৰচনা কাল, ৰচনা স্থান আদি সঠিকভাৱে নিৰ্ণাৰণ কৰিব পৰা নাথায় বা কৰাটো কঠিন। জিকিৰসমূহৰ ক্ষেত্ৰত ইয়াৰ কিছু ব্যতিক্ৰম দেখা যায়। অবশ্যে সকলো জিকিৰ আজান পীৰৰ ৰচনা নহয়। মুঠ আঠ কুৰি জিকিৰ তেখেতে ৰচনা কৰিছিল বুলি জনা যায় যদিও এই পৰ্যন্ত সকলো সংগ্ৰহ কৰিব পৰা হোৱা নাই। তেখেতৰ শিষ্যসকলৰ দ্বাৰাও বহু জিকিৰ ৰচিত। দলগতভাৱে পৰিৱেশন কৰা এই জিকিৰসমূহ লোকসমাজত অতিকৈ সমাদৃত।

আজান পীৰৰ অসম আগমনৰ সময়ছোৱাত অসমত ইছলাম ধৰ্মৰ স্থিতি সম্পৰ্কে সুৰুমাৰ ভূঞাই মত আগবঢ়াইছে যে, "মোগল ভাৰতৰ মুছলমান প্ৰজাৰ মাজত ইছলাম ধৰ্মৰ নাম-উপাসনা জাগ্ৰত কৰি ৰাখিবলৈ নিস্তৰ মোক্তাৰ, মাদ্ৰাছা, মছজিদ আৰু ইমামবৰা পতা হৈছিল। কিন্তু অসম দেশৰ মুছলমানসকল ভাৰতৰ মুছলমান কেন্দ্ৰবোৰৰ পৰা আঁতৰত থকাৰ কাৰণে তেওঁলোকে লাহে লাহে ইছলামৰ আচাৰ-পদ্ধতি পাহৰি আহিবলৈ

স'বাণ্ডৰিৰ আজান

॥১৫৩





THE WAVE OF THOUGHT	
• A Short History of Gorkhs in Assam → Dyba Subash Chatter	180
• Mastering Communication Excellence... → Manika Deyani	185
• Aot East Policy and North-East India... → Hubert Deygharia	189
• Sustainable Development Goals and People's... → Jannant Sonowal Sarkar	198
• Multidisciplinary approach on "John Donne... → Sonmita Dey	209
• Independence and Partition of India... → Sudanta Sarkar	217
• Truancy and Anxiety in Homen Borgehaie's novels ... → Bhagyashree Choud	232
• Women Empowerment in political Decision-Making... → Paponi Deygharia	239
<b>বিজ্ঞান ও অর্থনীতি</b>	
• কৃষিকলনৰ ব্যৱস্থাপনাতকৈ পৰিৱৰ্তনৰ অৱশ্যৰ নিয়ন্ত্ৰণ... → ড° কুশলী	246
• শাস্ত্ৰমূলকৰ অর্থনীতি : এটি অধ্যয়নাত্মক বিশ্লেষণ → অমলেন্দ্ৰ হাজৰিকা	257
• অৱশ্যৰ জালতকৈও কৃষিবিজ্ঞানীক লোক-বিশ্বাস... → দেবেন্দ্ৰী হাজৰী	263
• ড° জগদীশ দাস পৰিচিহ্নৰ 'অর্থনীতি'ৰ "সেৱক" ... → বিজ্ঞা পৰিচিহ্ন	274
• হোৱাৰ শাস্ত্ৰমূলক এটি বস্তু কৃষিকলন → ড° অমলিকা দাস	280
• জলবায়ুৰ ব্যৱস্থাপনাতকৈ বিজ্ঞানৰ সেৱক "ড° বিজ্ঞানসন্মত"ৰ প্ৰত্যক্ষভাৱ... → দেৱেন্দ্ৰী পৰিচিহ্ন	284
• দেশৰ অৱশ্যৰ দীঘল প্ৰতিফলিত প্ৰকৃতিৰ একপন্থাৰেণ... এটি অধ্যয়ন... → গীতা হৰি দাস	289
• দুৰ অৱশ্যৰ শিক্ষা অৱস্থা : এটি পৰ্যালোচনা... → প্ৰতিফলিত বিজ্ঞান	29-



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## THE WAVE OF THOUGHT

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2000 2001

सदरार्थी अकाशम, सप्तमी, मासिमास

11

বঙ্গবীরসমূহ কেবল অসমীয়া সাহিত্যৰে অমূল্য সম্পদ নহয় সমগ্র উত্তৰপূৰ্বাঞ্চলৰ সাহিত্য ব্যক্তিৰ ভিতৰতে একক আৰু অন্যতম। বঙ্গবীর হ'ল শ্রীম শৰদেব আৰু মাধৱদেৱৰ বিৰচিত বিভিন্ন ব্যাংকাল বিন্ধি এক বিশেষ শৈলীৰে পৰিবেশন কৰা আধ্যাত্মিক ভাৱ সমৃদ্ধ গীত। কথা চক্ৰবৰ্ত্তনৰ মতে শাকদেৱৰে বান্ধকুনি বঙ্গবীর কবিতাৰ দ্বিতীয় কণ্ঠশাৰা জুটৈ তেওঁৰ সমূহ সাংক্য গীত নষ্ট হোৱাত মূৰ প্ৰকৃতি বঙ্গবীরহে সুৰক্ষিত অৱস্থাত পোৱা যায়। মূলত বৈষ্ণৱ ধৰ্ম প্ৰচাৰণৰ উদ্দেশ্যৰে বঙ্গবীর সমূহ কবিতা কৰা হৈছিল যদিও বিভিন্ন ৰূপ, ভাষা আৰু বিষয় বস্তুৰ সাৱলীল প্ৰকাশভঙ্গীৰে বঙ্গবীর সমূহক এক সুসীয়া মন্ত্ৰা প্ৰদান কৰিছে। বঙ্গবীর সমূহ কবিতাৰ বাবে শাকদেৱৰ তেওঁৰ সাম্প্ৰদায়িক ভাবিক সম্প্ৰদায় পৰিৱৰ্তে ব্ৰহ্মাণ্ডী আদৰ্শৰে দৰ্শন কৰিছিল।

আলোচ্য বিষয়টির কল্যাণের ব্যৱস্থায় কৰা প্রজ্ঞাপনী, সাধুত, আৰু  
জাতিৰ অসমীয়া ভাষাৰ ভাষাতাত্ত্বিক বিশ্লেষণ কৰাৰ উদ্দেশ্যেৰে গঠিত কৰা  
মেয়ে।

[257]





Sahitya Academy Bota Bijayini Asomiya: A Collection of Articles about Sahitya Academy award winning Books written by Assamese women writer. Edited by Dr. Mausumi Dutta and published by the Department of Assamese, Dibrugarh College, Dibrugarh on behalf of Ramdhenu Printing, Dowarahchuck, Dibrugarh.

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A note of sorry and gratitude: Despite of all our efforts to make this book error free, there are every possibilities of printing mistakes due to lack of time. We look forward to overcome all the shortfalls of the book, if any. Therefore, we request and expect from all our readers to bring the shortfalls to our notice, which will help us to make the next edition of this book better and error free. We also solicit valuable suggestions to make the next edition of this book far better.

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## প্রবন্ধসূচী

### ■ সম্পাদকীয়

- পদ্মশ্ৰী নলিনীবালা দেৱীৰ 'অলকানন্দা' ১-১১  
    ✍ ড° অদিতি বৰুৱা
- মামণি বয়ছন গোস্বামীৰ মামবে ধৰা তবোৱাল : ১২-১৯  
    এক অধ্যয়ন  
    ✍ ড° বৰ্ণালী শইকীয়া
- নিৰ্মলপ্ৰভা বৰদলৈৰ কাব্যগ্ৰন্থ 'সুদীৰ্ঘ দিন আৰু স্নাত' : ২০-৩৪  
    এটি চমু আলোচনা  
    ✍ দেৱযানী বৰলীয়া
- স্নেহ দেৱীৰ একুঁকি গল্প : এক আলোচনা ৩৫-৪১  
    ✍ ড° অংকুৰ দত্ত
- নিকপমা বৰগোহাঁইৰ অভিযাত্রী উপন্যাসৰ ৪২-৫১  
    এক বিশ্লেষণাত্মক অধ্যয়ন  
    ✍ গীতিমল্লিকা শইকীয়া
- পূৰ্ববীৰবমুদৈৰ ইতিহাস আশ্ৰয়ী উপন্যাস 'শান্তনুকুলনন্দন' ৫২-৬২  
    ✍ ড° শাফা দুৱৰা সন্দিকৈ
- ৰীতা চৌধুৰীৰ দেওলাংখুই উপন্যাসৰ এক বিশ্লেষণ ৬৩-৭৭  
    ✍ ভাগ্যশ্ৰী গগৈ
- অসমীয়া বামায়ণী সাহিত্য : কথাবস্তব আতিগুৰি ৭৮-৮৭  
    -এক চমু বিশ্লেষণ  
    ✍ মধুমিতা গোস্বামী বৰঠাকুৰ

## স্নেহ দেৱীৰ একুঁকি গল্প : এক আলোচনা

ড° অংকুৰ দত্ত

অসমীয়া গল্প সাহিত্যৰ ইতিহাসত যিকোনো মহিলা গল্পকাৰৰ নাম লোৱা হয় তাৰ ভিতৰত স্নেহ দেৱী (১৯১৬-১৯৯০) অন্যতম। যোৱা শতিকাৰ পঞ্চাছৰ দশকত প্ৰেমধৰ ৰাজখোৱাৰ সম্পাদিত সৌম্যৰ জ্যোতি নামৰ এখন আলোচনীত প্ৰকাশিত 'আয়োজন' নামৰ কবিতাটিৰ জৰিয়তে স্নেহ দেৱীয়ে লেখক জীৱন আৰম্ভ কৰে। কবিতাৰ জৰিয়তে লেখক জীৱন আৰম্ভ কৰে যদিও পিছলৈ স্নেহ দেৱীৰ প্ৰসিদ্ধি গল্প ক্ষেত্ৰতহে দেখিবলৈ পোৱা যায়। বামধেনু আলোচনীত প্ৰকাশিত 'জোৱাৰ পিছত' (১৯৫৩) তেখেতৰ প্ৰথম গল্প। কৃষ্ণা দ্বিতীয়াৰ জোনাক (১৯৫৮), স্নেহ দেৱীৰ গল্প (১৯৬৪), স্নেহ দেৱীৰ শ্ৰেষ্ঠ গল্প (১৯৮১), স্নেহ দেৱীৰ একুঁকি গল্প (১৯৮৮) — এই চাৰিখন গল্প সংকলনৰ মাজতে স্নেহ দেৱীৰ গল্পসমূহ একত্ৰিত হৈ আছে। যোৰহাটৰ চৰকাৰী বালিকা বিদ্যালয়ত পঞ্চম শ্ৰেণীলৈকে পঢ়ি আনুষ্ঠানিক শিক্ষা সাং কৰা স্নেহ দেৱীৰ গল্পৰ উপৰিও নাটকৰ দিশতো প্ৰতিভাৰ উমান পোৱা যায়। গুৱাহাটী অনাতাঁৰ কেন্দ্ৰৰ পৰা প্ৰচাৰিত তেওঁৰ প্ৰথম নাটক হ'ল শেষ তৃপ্তি। অম্ৰদা শইকীয়া সম্পাদিত স্নেহ দেৱীৰ বচনা সম্ভাৰ (২০০১)ত স্নেহ দেৱীৰ অন্য কেতবোৰ অপ্ৰকাশিত বচনাৰ তথ্যও পোৱা যায়।

স্নেহ দেৱীৰ সাহিত্যিক ক্ষেত্ৰত স্নেহ দেৱীৰ একুঁকি গল্প গ্ৰন্থখনে বিশেষ স্বীকৃতি লাভ কৰিবলৈ সক্ষম হৈছে। গ্ৰন্থখনে অসম সাহিত্য সভাৰ বাসন্তী বৰদলৈৰ বঁটা (১৯৮৭) আৰু সৰ্বভাৰতীয় স্বীকৃতি সাহিত্য অকাডেমি বঁটা (১৯৯০) লাভ কৰিবলৈ সক্ষম হয়। স্নেহ দেৱীয়ে গল্পকাৰ ৰূপে বামধেনু যুগত আত্মপ্ৰকাশ কৰি প্ৰায় আশীৰ দশকৰ শেষভাগলৈকে গল্প বচনা কৰি অসমীয়া গল্পৰ ক্ষেত্ৰখনত



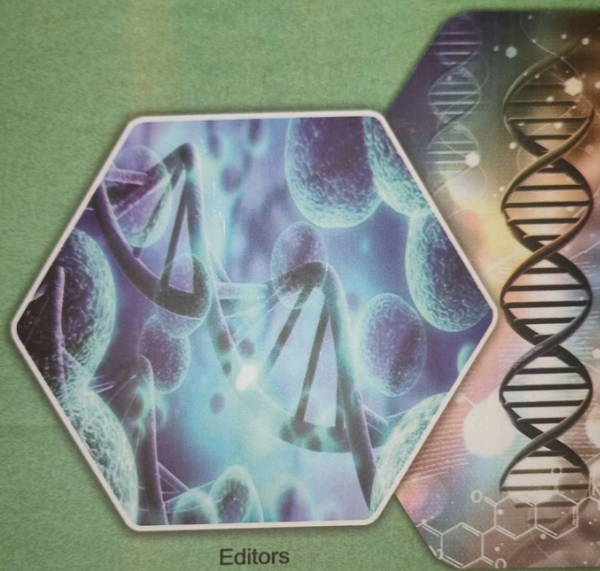


## **PUBLICATIONS OF DEPARTMENT OF BOTANY**

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Rupam Sarmah  
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Dr. Silu Basumatary



RESEARCH AND INNOVATION CELL  
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- |  |     |
|--|-----|
| Cooking Quality Proximate Composition and Antioxidant Properties of Rice   | 115 |
| <i>Uddipta Borthakur, Nibedita Sarma, Mehzabin Rehman</i>  |     |
| 10. Antimicrobial Activity of <i>Hodgsonia heteroclita</i> (Roxb.) Hook.f. and Thomson from Leaf Extract                   | 128 |
| <i>Silu Basumatary</i>   |     |
| 11. PCR Primer Designing Through In-Silico Approach: An Advance Technique of Bioinformatics                                | 137 |
| <i>Sanjib Kumar Das, Manoj Kumar Deka</i>  |     |
| 12. Invasive Alien Species in Riparian Forests of Pagladia River: A North Bank Tributary of Brahmaputra River, Assam       | 145 |
| <i>Rupam Sarmah, Panna Deb</i>   |     |
| 13. Current Methodologies and Future Trends in the Evaluation of Plant or Plant Derived Production as Antibacterial Agents | 163 |
| <i>Binita Devi, Sanjib Kumar Das</i>   |     |
| 14. Taxonomy and Ethnobotany of Some Sacred Plants Found in Kokrajhar District, BTR, Assam                                 | 171 |
| <i>Harajit Adhikary, Rupam Sarmah</i>  |     |
| 15. A Detailed Review on RNAi-Based Defence Mechanism at Post-Transcriptional Level in Plants                              | 195 |
| <i>Jeba Akhtar</i>   |     |
| 16. Pollination Partnerships: The Dance Between Insects and Flowers: A Review  | 207 |
| <i>Myrul Islam</i>   |     |
| 17. Hydroponics: A New Approach  |     |
| <i>Sandeepa Agarwalla, Khusboo Agarwal</i>   |     |
| 18. Analytical Techniques for the Evaluation of Nanoparticles  | 228 |
| <i>Merry Kashyap</i>   |     |

## HYDROPONICS: A NEW APPROACH

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#### Abstract:

With the changing time and growing urbanization, there is a decline in cultivation practice along with other problems such as the decrease in land area and high use of chemical fertilizers which is resulting in poor land fertility. Hydroponics is one of the modern strategies which is being accepted for the cultivation of crops, vegetables and fruits which is not only meeting the demand of the growing population but is also trying to solve the issues related to lack of infertile soil as it is a technique which helps in growing the plants without the use of soil. There are various structures of hydroponics, all with their pros and cons. In the present article an attempt is made on the overview of hydroponics.

### INTRODUCTION

The term "Hydroponics" was derived from the Greek words 'hydro' which means water and 'ponos' which means labor (Beibel, 1960). Hydroponics is one of the two methods of soil less culture. The other is "aeroponics" which is the practice of growing crops in a moist environment. Hydroponics simply means

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## Futuristic Trends in Pharmacy & Nursing



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PRODRUG BASED NANOPARTICLE THERAPEUTICS: CHALLENGES AND FUTURE PROSPECTS

### PRODRUG BASED NANOPARTICLE THERAPEUTICS: CHALLENGES AND FUTURE PROSPECTS

#### Abstract

Prodrug was introduced to overcome certain problems in the drugs which consequently led the scientists to switch from the traditional methods in producing classical prodrugs to designing and invoking prodrugs. In the coming years, prodrug-based nanoparticles will be a focus for the researchers to develop drugs to cure chronic illness as it improves efficacy and lessens side effects. The current review paper tries to focus on the benefits, challenges and the future prospects of prodrug-based nanoparticles.

**Keywords:** Prodrug; nanoparticle; chronic illness; cancer; prodrug-based nanoparticle; drug delivery

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Page | 182

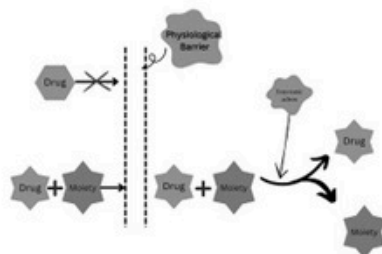
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PRODRUG BASED NANOPARTICLE THERAPEUTICS: CHALLENGES AND FUTURE PROSPECTS

#### 1. INTRODUCTION

Prodrugs are particles which are pharmacologically inactive but when introduced inside a host they become active due to enzymatic actions [1-3]. It is basically a drug coated with a safe moiety to make it inactive due to various properties of the drug which after intake becomes dissolved as depicted in Figure 1. The prodrug approach was developed to eliminate some undesirable physicochemical, biological and organoleptic properties of some existing drugs. Some prodrugs are linked with two moieties instead of one and such prodrugs are called "Codrugs" or "Mutual prodrugs". A few examples of codrugs are sulfasalazine, mesalazine, latanoprostene bunod, etc. Over the past few decades, it has experienced tremendous success and is now regarded as a promising and well-established method for the creation of new entities with superior efficacy, selectivity, decreased toxicity and increased bioavailability [4].



**Figure 1:** Schematic representation showing the concept of Prodrug.

Prodrug uses various tactics to optimize pharmacokinetics (drug delivery) and physicochemical properties to decrease toxicity and to aim specific tissues or cells. In order to make a prodrug more approachable, it is made susceptible to various enzymes by functionalization with a group that can be cleaved to produce active form [5]. Prodrug have various benefits that helps in cellular uptake, precursors in biological conversion pathways, increase duration of action of medicines, improves pharmacokinetic properties, etc.

Prodrug-based nanoparticle is the encapsulation of therapeutics within nanocarriers that helps in improving the kinetics as well as therapeutic efficacy of the drug. Although challenging, it has potential in the near future to overcome issues related to oncology and other therapeutic areas. The development of nanotechnology has had a substantial influence on medication delivery during the past ten years, where it focuses on developing nanoscale particles in order to improve the medication delivery [6-8]. In this chapter we will be focussing on prodrug-based nanoparticle drug delivery strategy in combination with cancer therapy as prodrug-mediated and nanomedicine-mediated treatments stand at the forefront of cancer management these days. In view of the fast development of anti-cancer strategy, this chapter focuses on the most recent advances of prodrug-based nanoparticle drug

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Page | 183





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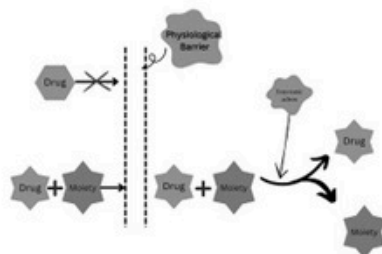
Page | 182

Futuristic Trends in Pharmacy & Nursing  
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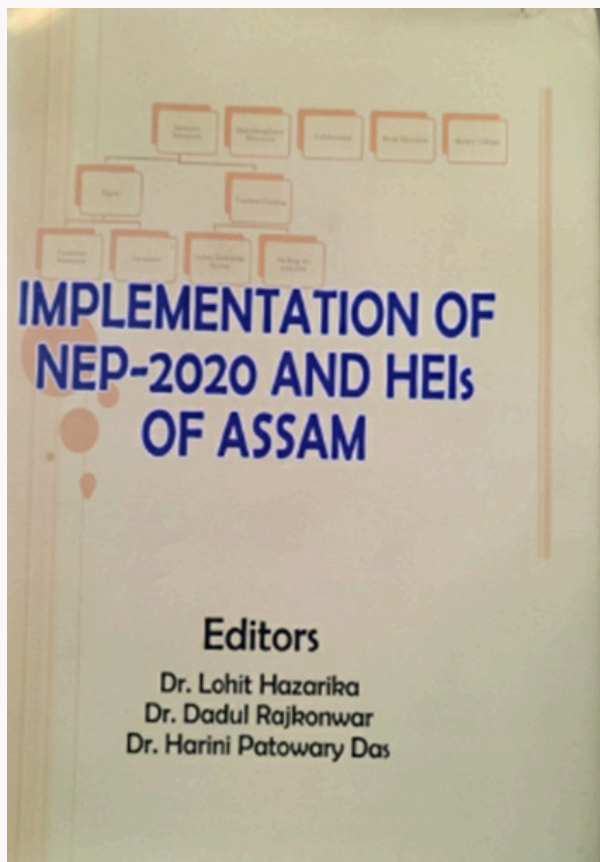
Page | 183



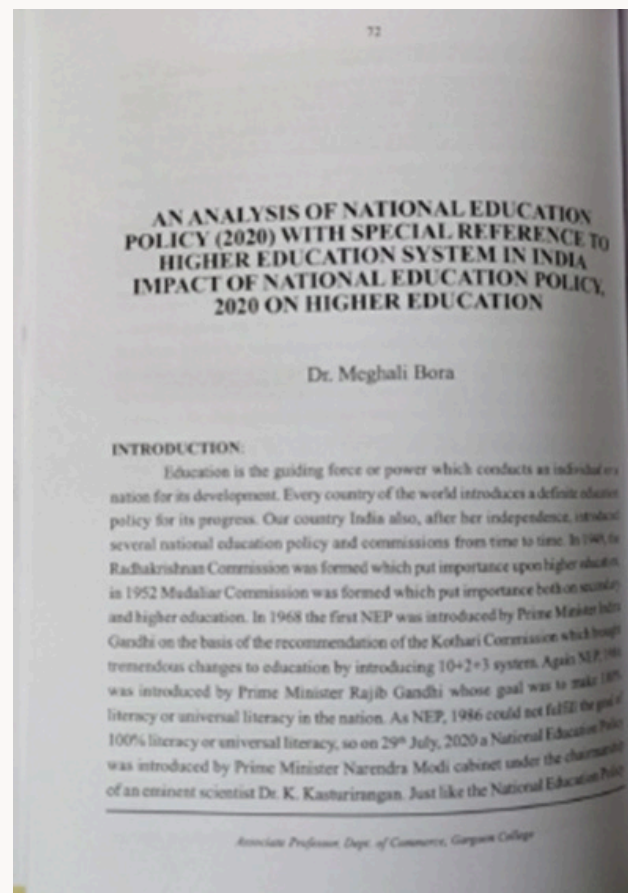
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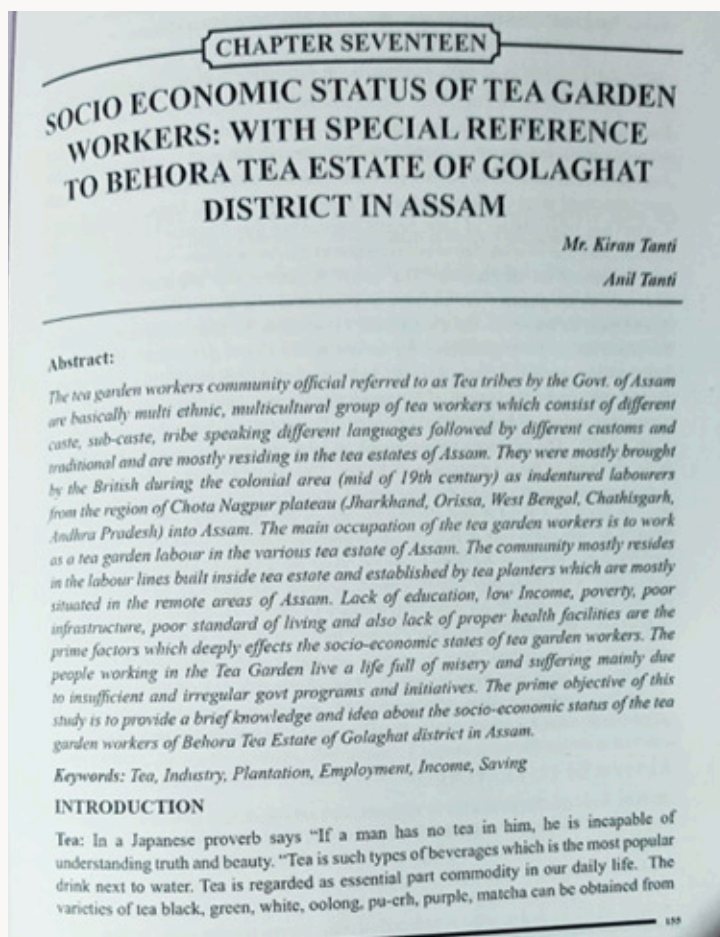
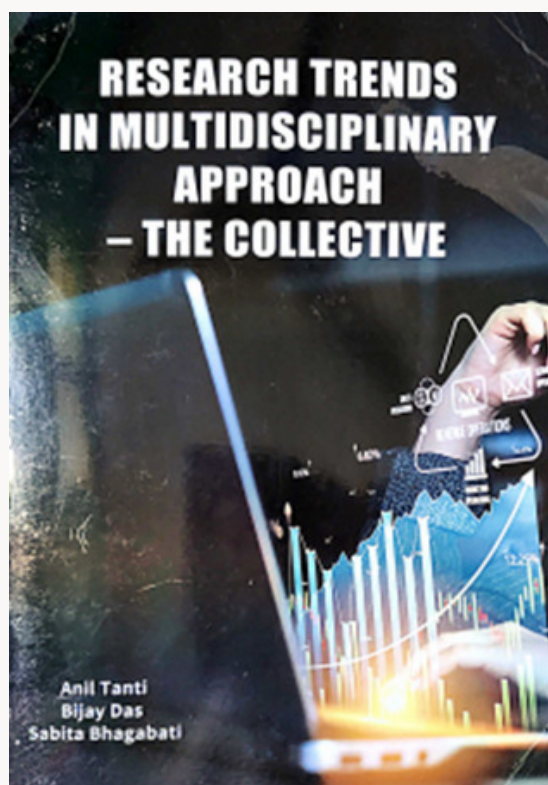


Content	
NATIONAL EDUCATION POLICY, 2020: A REVIEW BASED SWOC ANALYSIS	15
THE OBJECTIVE ORIENTATION OF THE NEP AND THE ATTEMPT OF REGENERATING THE INDIVIDUAL: A DIALOGUE IN TRANSITION	28
CHALLENGES ASSOCIATED WITH IMPLEMENTATION OF NEW EDUCATION POLICY	39
UNDERSTANDING GENDER INCLUSIVITY IN NEP 2020: A ROAD TOWARDS EDUCATION FOR TRANSGENDERS	49
IMPLEMENTATION OF ONLINE AND DIGITAL EDUCATION (WITH REFERENCE TO STUDY ON COLLEGES OF MORANTOWN)	62
AN ANALYSIS OF NATIONAL EDUCATION POLICY (2020) WITH SPECIAL REFERENCE TO HIGHER EDUCATION SYSTEM IN INDIA IMPACT OF NATIONAL EDUCATION POLICY, 2020 ON HIGHER EDUCATION	72
APPROACH TOWARDS GLOBAL CITIZENSHIP EDUCATION	79
NEP 2020- MAJOR REFORMS	85



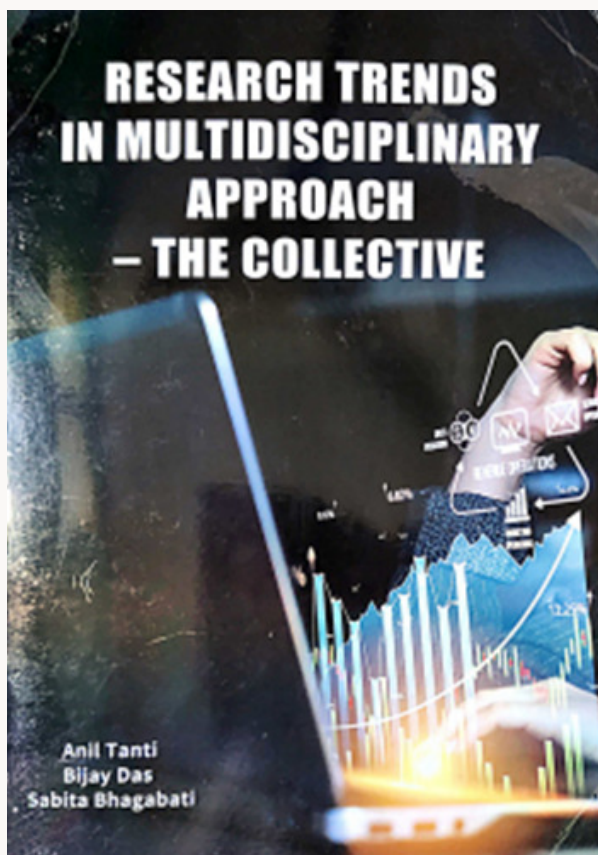


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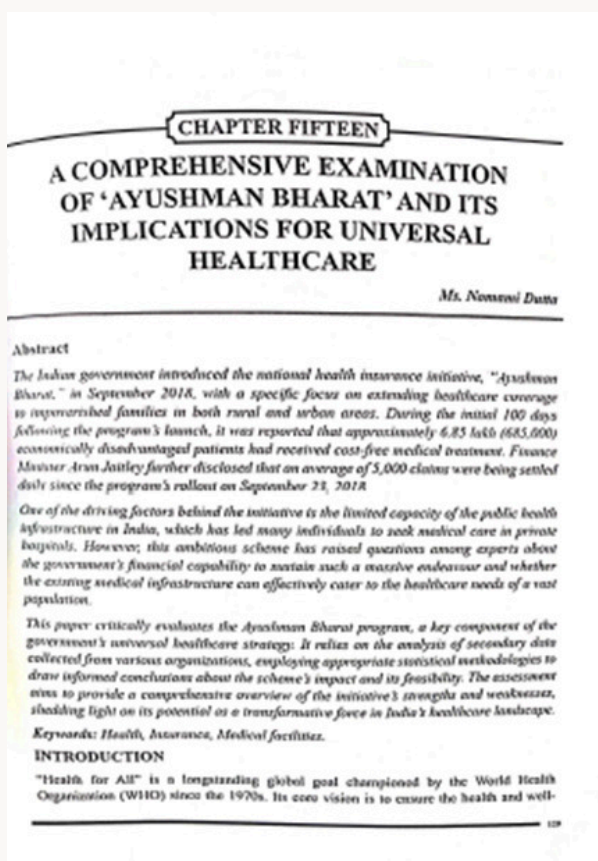




**MS. NOMAMI DUTTA**



12	A study on evolution of cashless payments of mobile wallets and contactless transactions in India <i>Rajib Morang and Moku Rolley</i>	103-112
13	Re-visionist mythmaking- a study of Shurpanakha re-visited in Kavita Kane's Lanka's princess <i>Sukanya Das</i>	113-120
14	Guidance counselling among the graduate students <i>Barsha Das and Juli Saikia</i>	121-127
15	A comprehensive examination of 'Ayushman Bharat' and its implications for universal healthcare <i>Ms. Nomami Dutta</i>	129-138
16	Festive mood of stock market returns: a study on the impact of Indian festivals on movement of Indian capital market <i>Dr. Nazreen Parveen Ali and Isfhan Shaikat Ali</i>	139-154
17	Socio economic status of tea garden workers: with special reference to Behora tea estate of Golaghat district in assam <i>Kiran Tanti and Anil Tanti</i>	155-167
18	Women empowerment through assam state rural livelihood mission (ASRLM) in Barhampur Development Block, Nagaon district of Assam <i>Amrit Jyoti Lekharu</i>	169-176
19	Membas: from subsistence to modern economy; a cultural perspective <i>Mina Robidas</i>	177-182
20	Exploring livelihoods: a study on Gorkha Communities dairy farmers in Ri-bhoi district of Meghalaya <i>Rohit Sharma</i>	183-192



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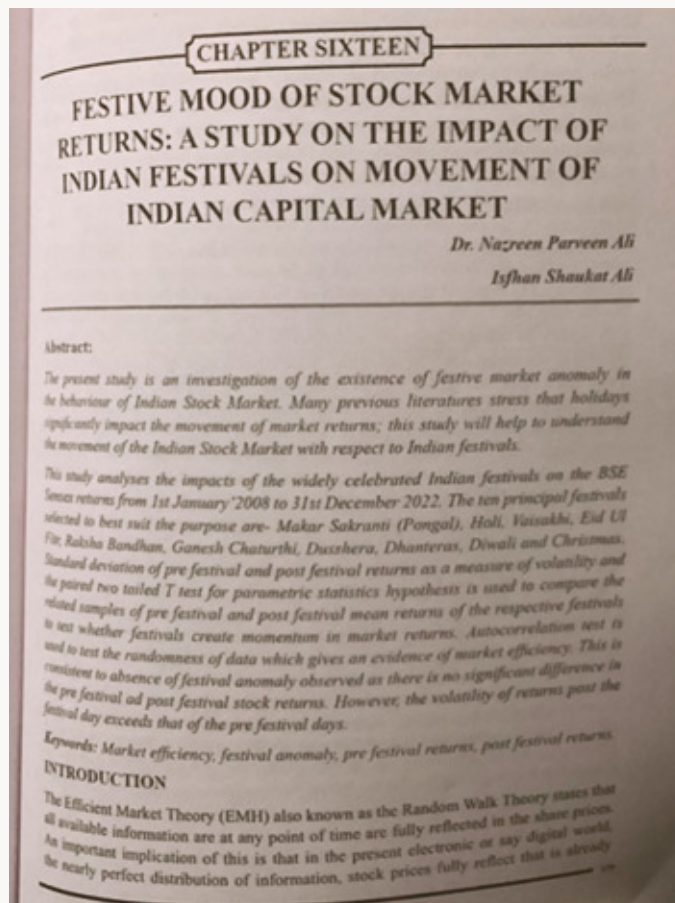
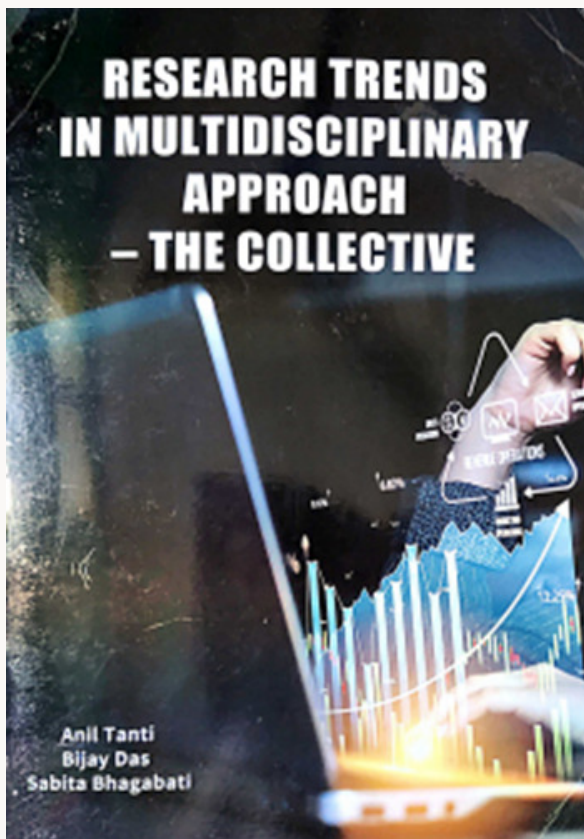
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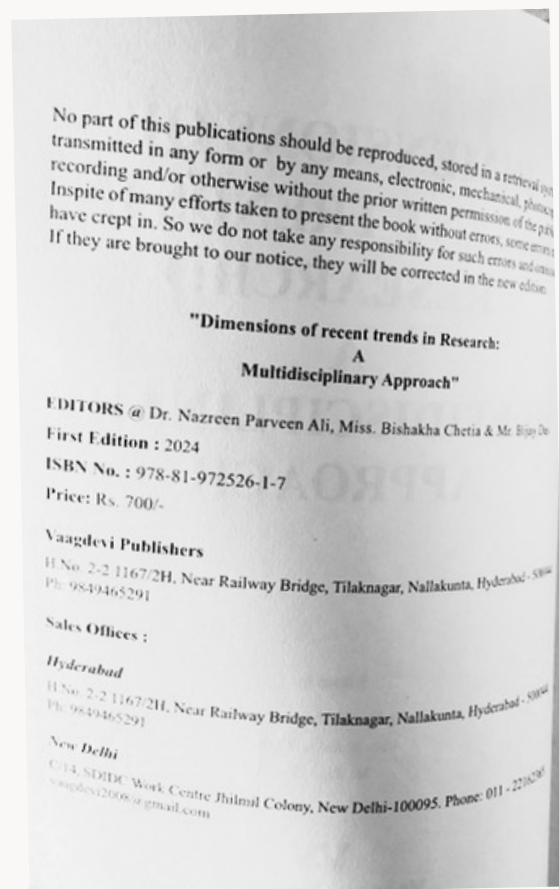
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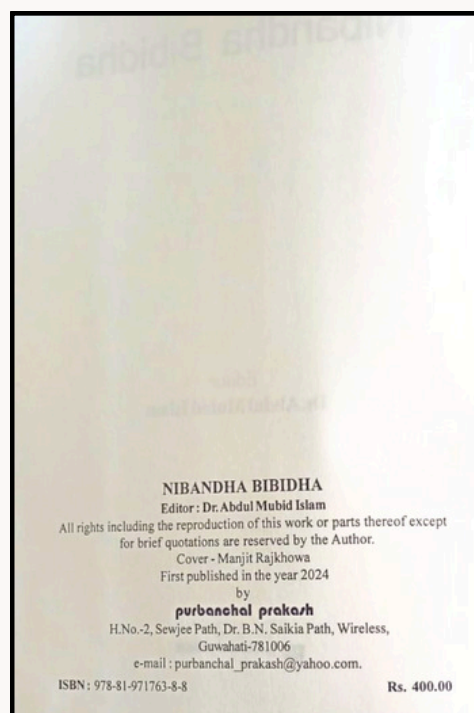
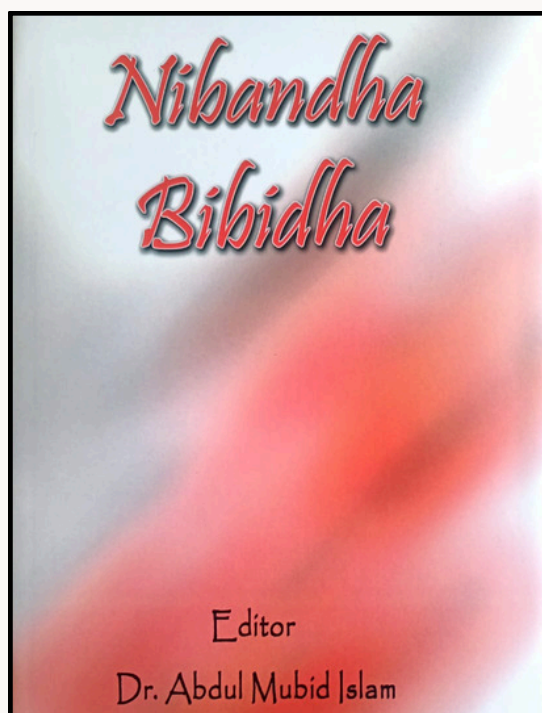




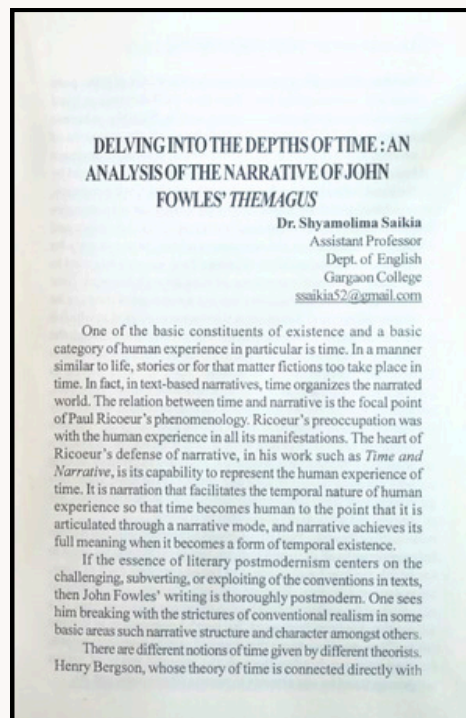


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CONTENTS	
ENGLISH SECTION	
	Page
1. Delving Into The Depths Of Time: An Analysis Of The Narrative Of John Fowles' The Magus—Dr. Shyamolima Saikia	15
2. Developments In The Schedule Of Dewey Decimal Classification From 18 <sup>th</sup> To 22 <sup>nd</sup> Edition For Agriculture And Related Technologies—Bidyut Bikash Boruah and Dr. Dipen Deka	32
3. Bodied Performance: A Performative Reading of Ngugi Wa Thiong'o's <i>I Will Marry When I Want</i> —Dr. Abdul Mubid Islam	45
4. Elderly Population In North- East India: A Study—Dr. Beejata Das	50
5. A Study on Gender Inequality In Education—Bibak Tocha	57
6. EIA And Industries Of Namrup: A Brief Study—Bikash Borthakur	63
7. National Education Policy 2020 And Reimagining Vocational Education—Dr. Biman Chandra Borah	74
8. Geographical Psychology: An Overview Of The Relationship Between Geography And Psychology—Binita Tamuley and Kaushik Kumar Deka	85
9. Influence Of Internet on Students Academic And Social Field Among Undergraduate Students With Reference To Cotton University, Panbazar—Gitarthi Chetia	95
10. Digital India: A Catalyst of E-Governance And Digital Democracy In India—Dr. Jagmohan Boro	106







**PUBLICATIONS OF DEPARTMENT OF GEOGRAPHY**

NAME	TITLE (BOOK/CHAPTER)	NAT./INT.	YEAR	ISSN/ISBN	AFFILIATING INSTITUTE	PUBLISHER
Dr. Dilip Kumar Deka	Contemporaray Issues in Geography: Challenges & Opportunities	National	2024	978-81-19958-51-1	Gargaon College	Assam Book Trust, Guwahati, Assam
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**VOL: 2**



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- Kenneth C. Davis

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I am delighted to know that the Department of Geography of the College in collaboration with the Alumni Association has decided to publish a book of research articles titled "Contemporary Issues in Geography: Challenges and Opportunities", which I believe, will definitely be able to give our students the opportunity to gain better knowledge in comprehending the world around us.

With heartfelt appreciation to everyone involved in the creation of this book, I would like to congratulate the Editor and the members of the Editorial Board for their hard work and commitment towards preparing and publishing this book. I am sure the book will provide the teachers, research scholars and students a deeper understanding of the world we live in, exploring the intricate connections between people, places and the environment.

With warm wishes...

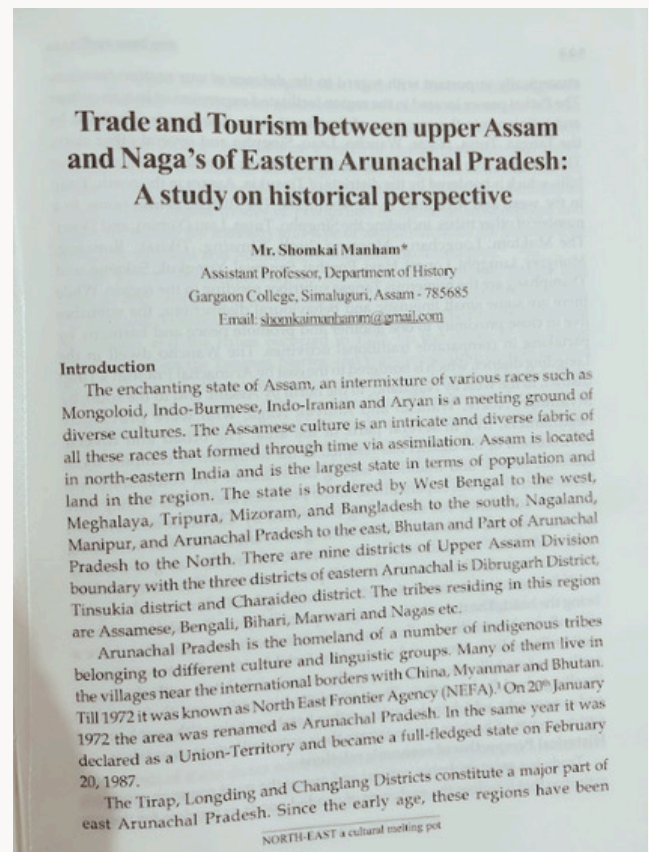
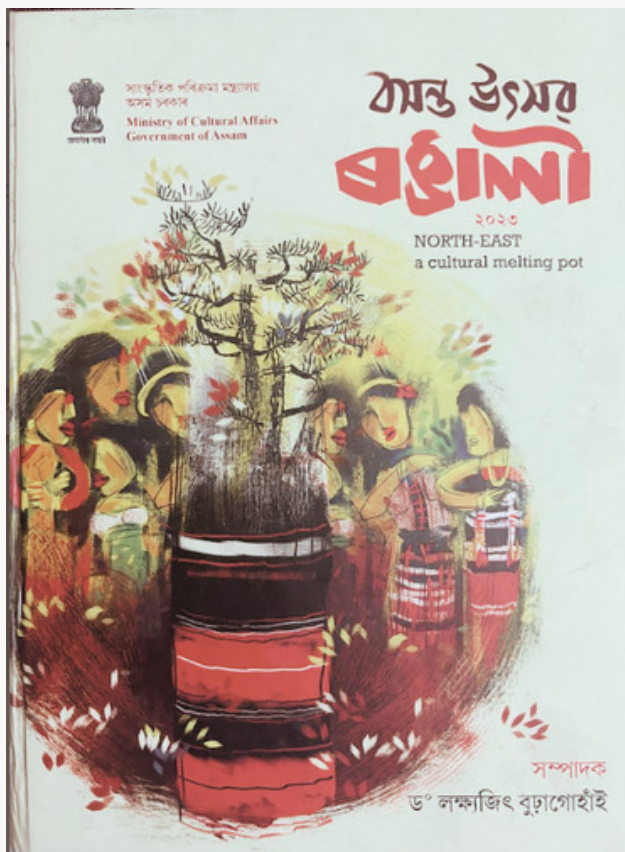
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Dr Shomkai Manham	Research Trends in Multidisciplinary approach- the collective. Unveiling the Myths of Disease Origin: A Journey into Wancho Traditional healing Rituals	National	2023	978-81-966358-4-8	Gargaon College	Vaagdevi Publishers
Dr Shomkai Manham	Basanta Utsav Rongali. Trade and Tourism between upper Assam and Naga's of Eastern Arunachal Pradesh: A study on Historical perspective	National	2023	978-93-92610-20-2	Gargaon College	Ministry of cultural Affairs, Government of Assam

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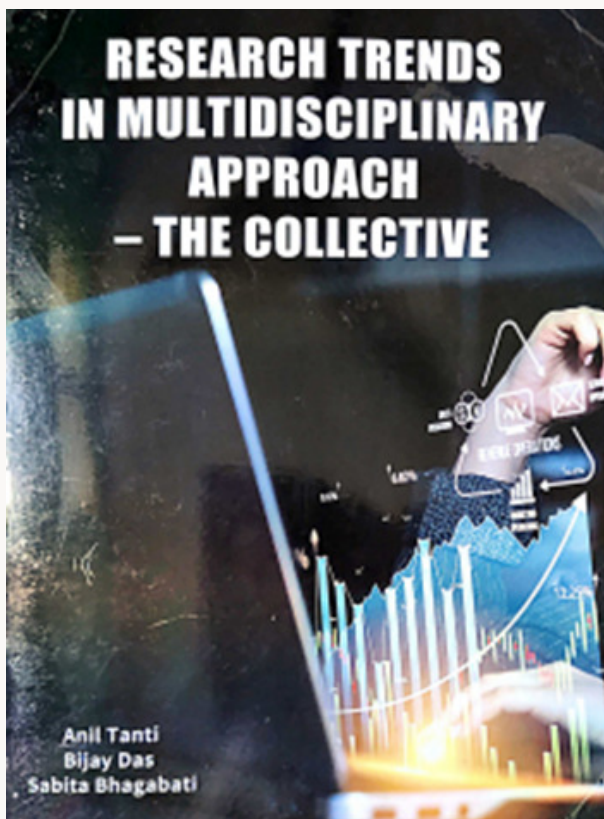




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অসমীয়া শব্দীয়া	৩২০-৩২৩
জানগোষ্ঠীৰ আত্ম-সচেতনতা আৰু অসম	
ড° যাদৱৰে বৰা	৩২৭-৩৩৩
অসমীয়া জনজীৱনত তীৰ্থশালা আৰু টেলী	
ড° বসন্তী ফুকন সোণৱাল	৩৩৪-৩৩৮
অৰুণাচল প্ৰদেশত তিব্বতীয় মূলৰ মনসা জানগোষ্ঠীৰ সাংস্কৃতিক ঐতিহ্য	
নেপালম দাস	৩৩৯-৩৪৭
অসমৰ চাহ জানগোষ্ঠীৰ কুসুম গীতৰ সময়ৰ প্ৰতিফলন	
ড° মৌচুমী দত্ত	৩৪৮-৩৫৫
জানগোষ্ঠীৰ লোককথা আৰু লোকবিশ্বাস : সংগ্ৰহ, অধ্যয়ন আৰু ইয়াৰ ভৱিষ্যত	
সমুদ্ৰ শৰ্মা	৩৫৬-৩৭৭
সাংস্কৃতিক বাণিজ্যীকৰণ	
হেৰল্ড	৩৭৮-৩৮১
চুকা মহিলাসকলৰ সাজপাৰত ফুলকো আৰু বং সিয়া পছতি	
ড° বসন্তী ফুকন	৩৮২-৩৮৭
নিজৰ ক্ষেত্ৰত চাহ জানগোষ্ঠীৰ নাৰী : পৰম্পৰা আৰু পৰিৱৰ্তন	
গীতামণি দত্ত	৩৮৮-৩৯০
চুকা মহিলাসকলৰ সাহিত্য সাংস্কৃতিক ঐতিহ্য চমু স্ফাপৰণা	
লীলা চুতীয়া	৩৯১-৩৯৯
Tribal Language Films of Assam	
Dr. Minakshi Dutta	৪০০-৪০২
পৰিচালনা :	
উত্তৰ-পূৰ্বাঞ্চলৰ পৰ্যটন উদ্যোগৰ প্ৰত্যাহা আৰু সম্ভাৱনা	
পাকত বৰুৱা	৪০৩-৪০৭
বৰফত জুইলগা ব'হাগত টাৰাৰ সৰোবৰৰ পাৰে পাৰে	
লোহিত ডেকা	৪০৮-৪১৫
উত্তৰ-পূৰ্বাঞ্চলৰ পৰ্যটনৰ সমস্যা আৰু সম্ভাৱনা	
ড° শশীকান্ত শৰ্মা	৪১৬-৪২০
Trade and Tourism between upper Assam and Naga's of Eastern Arunachal Pradesh: A study on historical perspective	
Mr. Shomkai Manham	৪২১-৪২৭

NORTHEAST A cultural melting pot

CHAPTER FIVE
UNVEILING THE MYTHS OF DISEASE ORIGIN: A JOURNEY INTO WANCHO TRADITIONAL HEALING RITUALS
Shomkai Manham
Abstract
This paper delves into the captivating realm of Wancho traditional healing rituals, shedding light on the intricate tapestry of myths surrounding the origins of diseases. The Wancho, an indigenous tribe residing in the north-eastern frontier of India, have preserved their rich cultural heritage, which includes a unique system of healing rooted in their belief systems and ancestral wisdom. By examining the myths that underpin the Wancho understanding of disease origins and exploring the traditional healing rituals practiced within their community, this research aims to provide valuable insights into the interplay between culture, mythology, and healthcare. Through ethnographic fieldwork and a comprehensive analysis of Wancho traditions, this study not only unveils the mystique of disease origins but also offers a deeper appreciation for the resilience and wisdom of this indigenous group in the face of health challenges. The findings presented here illuminate the importance of acknowledging and preserving traditional healing practices in our modern healthcare landscape while respecting and honouring the cultural diversity of the world's indigenous communities.
Keywords: Wancho, Healing ritual, North Eastern, mythology.
INTRODUCTION
The Wancho tribe is an indigenous group primarily found in the North Eastern region of India, specifically in the state of Arunachal Pradesh and parts of Assam. They are known for their rich culture, unique traditions, and a strong sense of community. The Wancho people are one of the many Naga tribes that inhabit the rugged and remote landscapes of this North Eastern Indian state. The Wancho people have their own language, known as the Wancho language. It is part of the Tibeto-Burman language family and is characterized by its distinct script and vocabulary. Traditionally, the Wancho people lived in raised bamboo and thatch houses, designed to protect them from the heavy monsoon rains and provide shelter in the hilly terrain. However, in recent years, some have adopted modern



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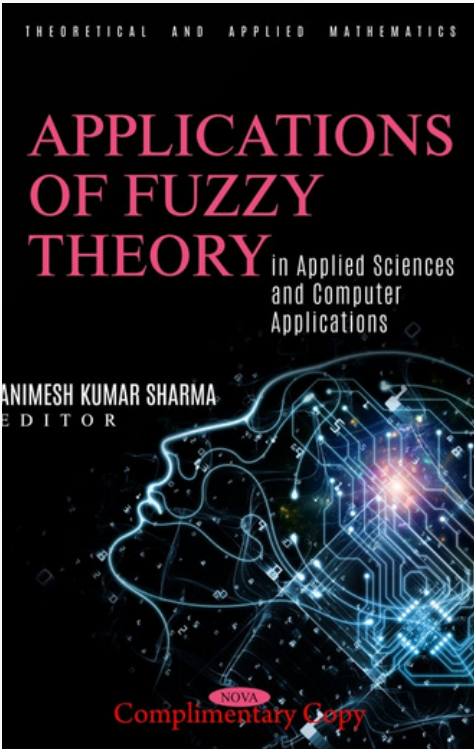




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NAME	TITLE (BOOK/CHAPTER)	TITLE OF THE PAPER	NAT./INT.	YEAR	ISSN/ISBN	AFFILIATING INSTITUTE	PUBLISHER
Dr. Bornali Dutta	Theoretical and Applied Mathematics. Application of Fuzzy Inference System Mortality Studies: A Review		National	2024	978-8-89113-666-3	Gargaon College	Nova Science Publishers

DR. BORNALI DUTTA



Contents

Preface .....	ix
Acknowledgement .....	xi
List of Tables .....	xiii
List of Figures .....	xv
Chapter 1 Fuzzy Pattern Recognition for Face Recognition in Biometrics .....	1
Ashish Kumbhare, Shashank Mane, Naveen Kumar Vaishnav and Santosh Kumar Verma	
Chapter 2 Application of Fuzzy Inference System in Mortality Studies: A Review .....	21
Debajyoti Bora, Manash Pratim Barman and Bornali Dutta	
Chapter 3 Application of Neutrosophic Over Digraphs .....	31
R. Narmada Devi, J. Shakthipriya, Kala Raja Mohan and Nagadevi Bala Nagaram	
Chapter 4 Reliability Analysis of a Two-Unit Repairable System Using Fuzzy Linguistic Approach .....	45
Shakuntla Singla, Diksha Mangla, Pooja Dhawan and Gurdas Ram	
Chapter 5 Application of Fuzzy Analytical Hierarchy Process in Academic Institution or University Selection for Higher Studies .....	59
Naveen Kumar Vaishnav, Ashish Kumbhare, Animesh Kumar Sharma and Sanjeev Karmakar	

Chapter 2

Application of Fuzzy Inference System in Mortality Studies: A Review

Debajyoti Bora<sup>1\*</sup>  
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Abstract

The fuzzy inference system is essential in model building and the decision-making process. Lotfi A. Zadeh first proposed the concept of fuzzy set theory in the 1960s. It deals with partial truth values, ranging from entirely true to false. It has since developed into a potent tool for dealing with imprecision and uncertainty to attain tractability, robustness, and feasible solutions to problems that exist in the real world. A fuzzy inference system is widely used in analyzing mortality by different researchers. The main objective of this study is to discuss the effectiveness of fuzzy inference systems in mortality studies conducted so far by various researchers. The study also discussed the process of fuzzy inference systems, their strengths and weaknesses in model building for analyzing various mortalities, and their adaptability in the future. The use of fuzzy inference systems in mortality analysis is a relatively new field of study, and this aspect needs to be addressed. As the fuzzy inference system becomes an efficient tool in building a computational interface for prediction, this paper will help various

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## **PUBLICATIONS OF DEPARTMENT OF ZOOLOGY**

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## Futuristic Trends in Pharmacy & Nursing



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PRODRUG BASED NANOPARTICLE THERAPEUTICS: CHALLENGES AND FUTURE PROSPECTS

### PRODRUG BASED NANOPARTICLE THERAPEUTICS: CHALLENGES AND FUTURE PROSPECTS

#### Abstract

Prodrug was introduced to overcome certain problems in the drugs which consequently led the scientists to switch from the traditional methods in producing classical prodrugs to designing and invoking prodrugs. In the coming years, prodrug-based nanoparticles will be a focus for the researchers to develop drugs to cure chronic illness as it improves efficacy and lessens side effects. The current review paper tries to focus on the benefits, challenges and the future prospects of prodrug-based nanoparticles.

**Keywords:** Prodrug; nanoparticle; chronic illness; cancer; prodrug-based nanoparticle; drug delivery

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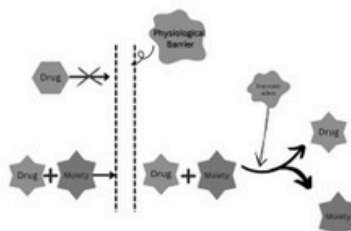
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#### 1. INTRODUCTION

Prodrugs are particles which are pharmacologically inactive but when introduced inside a host they become active due to enzymatic actions [1-3]. It is basically a drug coated with a safe moiety to make it inactive due to various properties of the drug which after intake becomes dissolved as depicted in Figure 1. The prodrug approach was developed to eliminate some undesirable physicochemical, biological and organoleptic properties of some existing drugs. Some prodrugs are linked with two moieties instead of one and such prodrugs are called "Codrugs" or "Mutual prodrugs". A few examples of codrugs are sulfasalazine, mesalazine, latanoprostene bunod, etc. Over the past few decades, it has experienced tremendous success and is now regarded as a promising and well-established method for the creation of new entities with superior efficacy, selectivity, decreased toxicity and increased bioavailability [4].

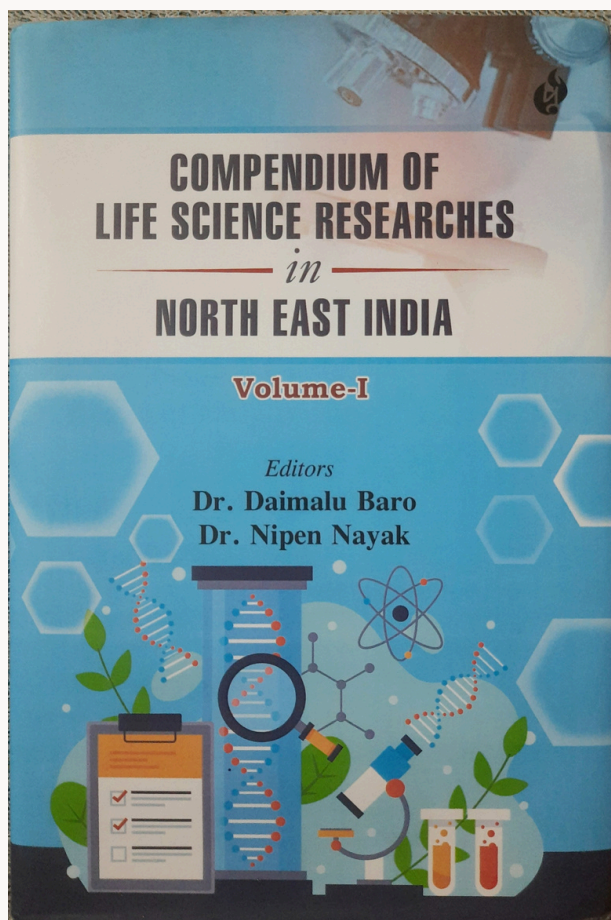


**Figure 1:** Schematic representation showing the concept of Prodrug.

Prodrug uses various tactics to optimize pharmacokinetics (drug delivery) and physicochemical properties to decrease toxicity and to aim specific tissues or cells. In order to make a prodrug more approachable, it is made susceptible to various enzymes by functionalization with a group that can be cleaved to produce active form [5]. Prodrug have various benefits that helps in cellular uptake, precursors in biological conversion pathways, increase duration of action of medicines, improves pharmacokinetic properties, etc.

Prodrug-based nanoparticle is the encapsulation of therapeutics within nanocarriers that helps in improving the kinetics as well as therapeutic efficacy of the drug. Although challenging, it has potential in the near future to overcome issues related to oncology and other therapeutic areas. The development of nanotechnology has had a substantial influence on medication delivery during the past ten years, where it focuses on developing nanoscale particles in order to improve the medication delivery [6-8]. In this chapter we will be focussing on prodrug-based nanoparticle drug delivery strategy in combination with cancer therapy as prodrug-mediated and nanomedicine-mediated treatments stand at the forefront of cancer management these days. In view of the fast development of anti-cancer strategy, this chapter focuses on the most recent advances of prodrug-based nanoparticle drug





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*Tikendrajit Gogoi & Trishna Jarambasa*
26. Post-Harvest Diseases of Fruits and Vegetables Caused by Fungi,  
Their Bio-Chemical Changes and Management || **383-395**  
*Prerana Doley*
27. Inventorization of Fish Germplasm of Dikhow River: Current  
Threats and Conservation Status || **396-409**  
*Anurag Protim Das & S.P. Biswas*
28. A Universal fruit: citrus and its importance || **410-422**  
*Rupanjana Das & Ruma Das*
29. A general view on the nutritional aspects of microalgae in  
aquaculture || **423-430**  
*Hummily Teronpi, Jyotishmita Dutta & Jyotirmay Kalita*
30. An Overview of Biodiversity in Jeypore Rainforest || **431-444**  
*Banashree Rajkhowa & Neha Boruah*



## Inventorization of Fish Germplasm of Dikhow River; Current Threats and Conservation Status

Anurag Protim Das  
Shyama Prasad Biswas

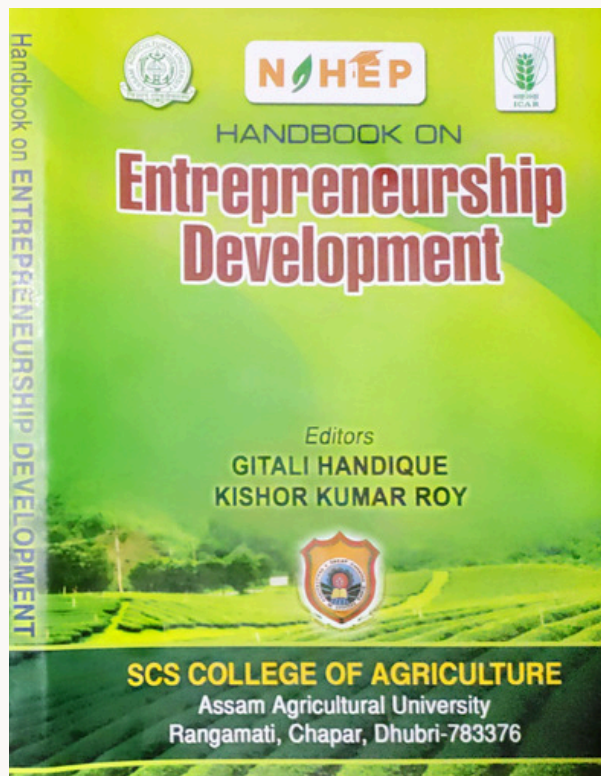
### Abstract

The historic Sivasagar district of Assam known for its historic significance is endowed with a rich wealth of unique aquatic resources such as the river Dikhow and many wetlands which is home to many rare and native fish species. In this work, the fish diversity of river Dikhow was inventoried for a period of two years. A total of 48 species belonging to 16 Families with dominance of the Cyprinidae family with 14 species, followed by Channidae with 5 species and Belontiidae with 4. The results reveal the occurrence of rich piscine diversity in the Dikhow River. However, due to increasing anthropogenic activities such as indiscriminate fishing, destruction of breeding grounds, the flow of pesticides from the adjacent agricultural fields caused a steady decline in fish diversity. Adequate measures need to be adopted for the sustenance and conservation of the fish diversity of the river.

**Key words :** Fish Diversity, Conservation, Dikhow River

### Introduction

The diversity of the freshwater ecosystems in the north-eastern region of India, which is a component of the Himalayas and Indo Burma, is extremely diverse and significant for the life and economic well-being of the local populace (Allen et al., 2010). There are 2500



- Entrepreneurship in Ornamental Fish Culture and Aquarium Trade in North India  
Dr. Anurag Protim Das || 81
- Entrepreneurial Dimensions Dealing with Agricultural Innovative Tools and Implements as an Aid for Farmers  
Ms. Amrita Teronpi || 89
- Biopesticide Production - As an Agripreneurship Venture  
Dr. (Ms.) Pranamika Sharma || 95
- Project Proposal Writing for starting an Enterprise- A Practical Exercise  
Dr. Kishor Kumar Roy || 102
- Role of NABARD in Entrepreneurship Development- Recent Initiatives  
Mr. Ala Ram Deury || 109
- Procedure and Documentation Requirements for Availing Bank Finance for Entrepreneurship Venture  
Mr. Pramod Kumar Thakur  
Dr. Kishor Kumar Roy || 112
- Schemes in MSME Sectors for Entrepreneurship Development  
Mr. Satya Prakash Bhuyan || 120
- Success Story- Journey of a Budding Entrepreneur Mr. Jishnu Ram Ray: A case study  
Chayanika Hazarika Roy  
Dr. Kishor Kumar Roy || 127



