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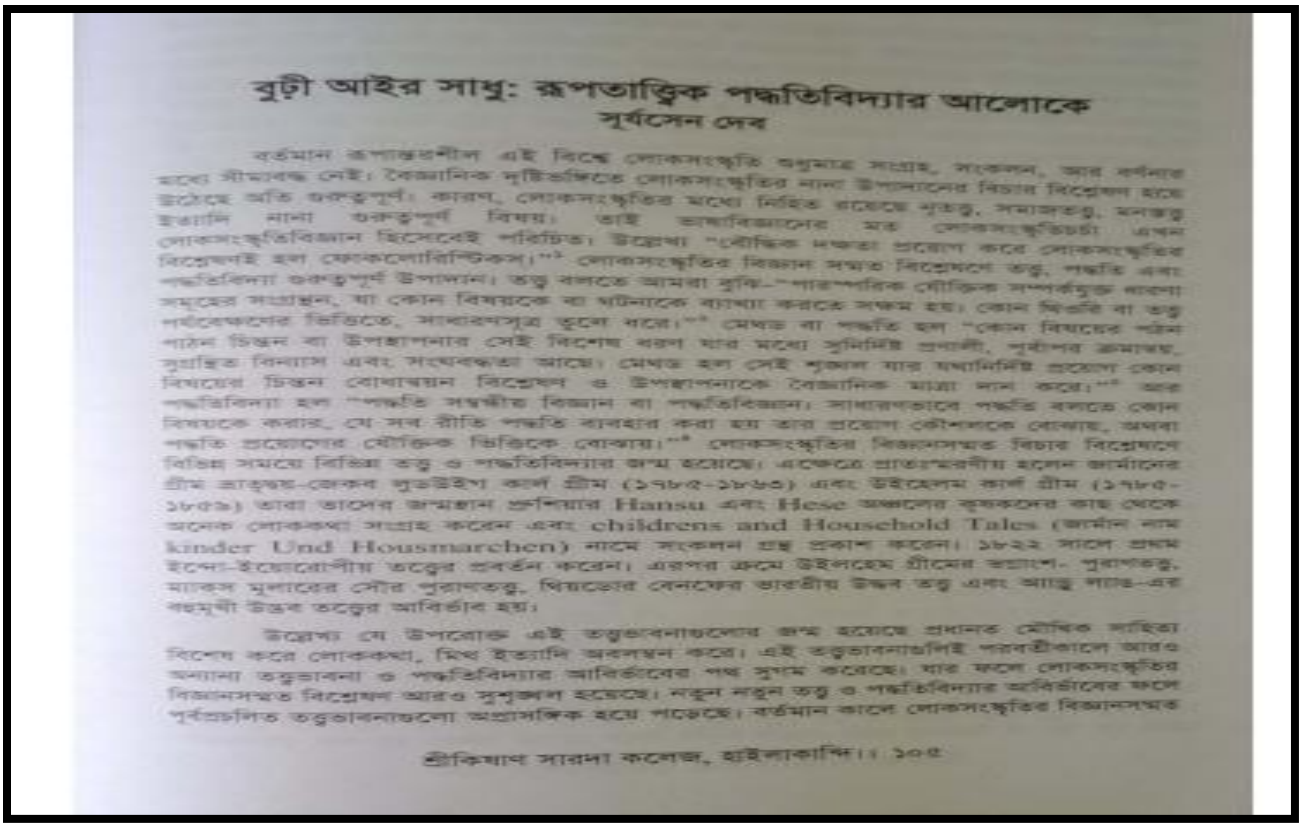
## Supporting Documents

**Criterion 3 Metric No 3.2.1**

**SREENSHOT OF THE PAPERS IN OFF LINE JOURNAL**

1. **Name of the Author : Dr. Surjasen Deb ( Bengali Department)**
   **Journal Name : Anwesha**
   **Title of the paper : "Burhiaair Sadhu".**
   **Year of Publication : 2017.**

ISSN 2349-9699



# অন্বেষা

বাংলা বিভাগীয় গবেষণা পত্রিকা

চতুর্থ বর্ষ, প্রথম সংখ্যা
২২শে শ্রাবণ, ১৪২৪ বঙ্গাব্দ

সম্পাদক
প্রিয়ব্রত নাথ

বাংলা বিভাগ
শ্রীকিষাণ সারদা কলেজ, হাইলাকান্দি
আসাম

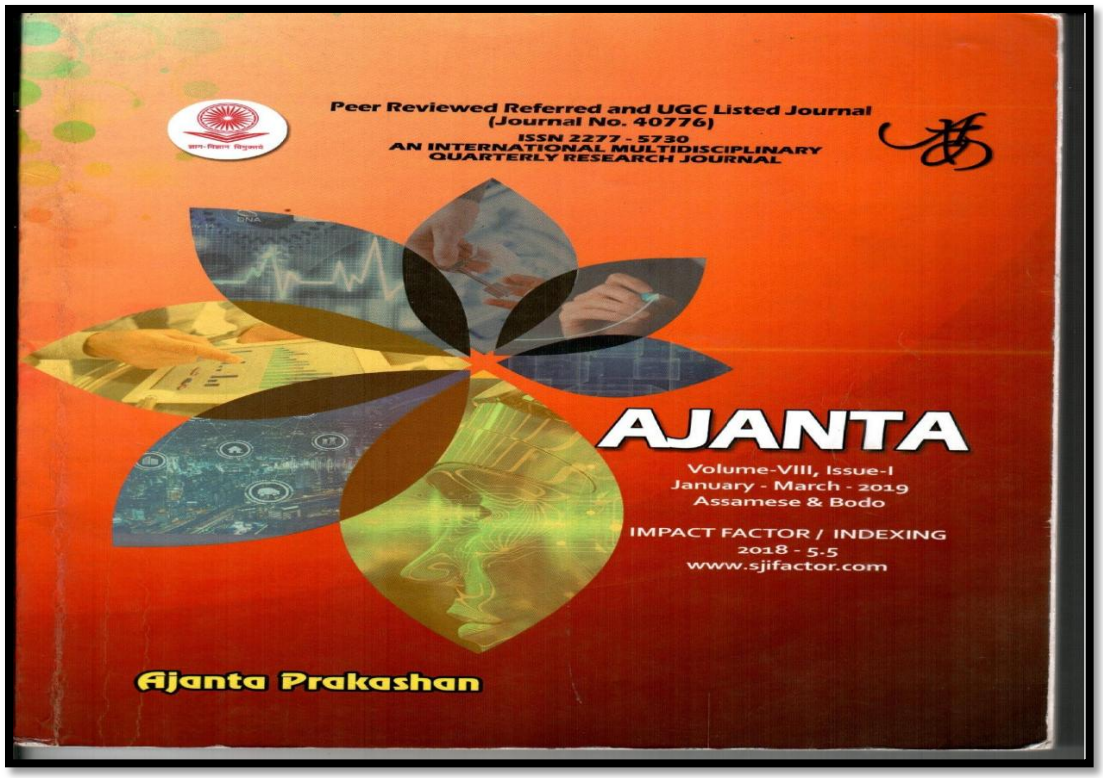


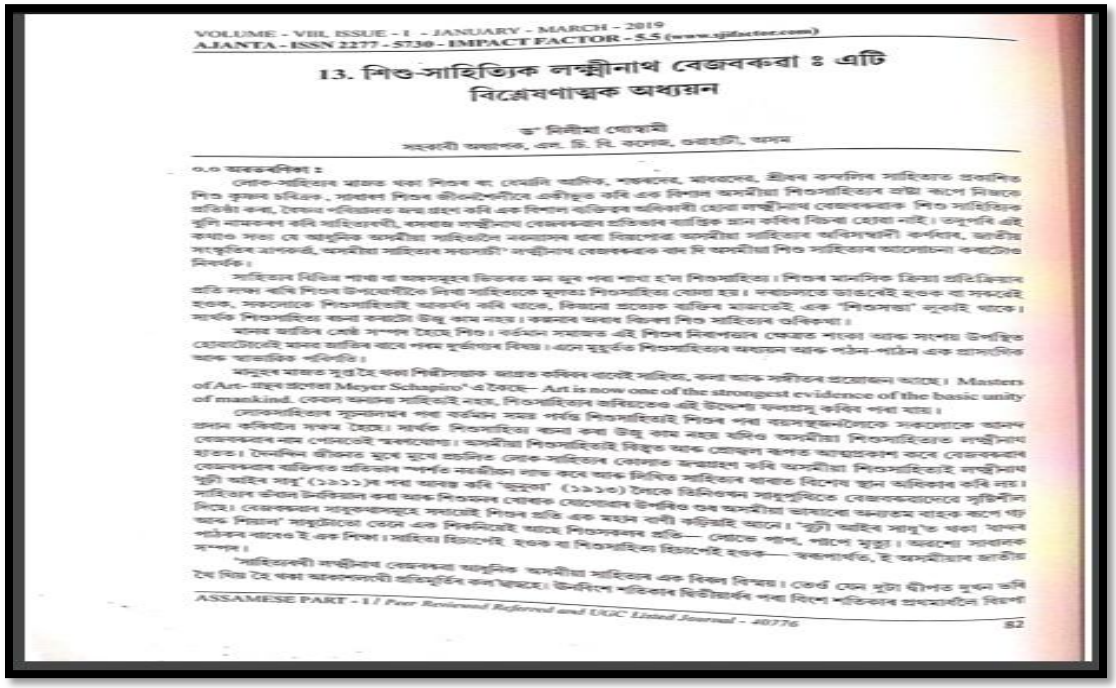
## বুড়ী আইর সাধু: রূপতাত্ত্বিক পদ্ধতিবিদ্যার আলোকে

সূর্যসেন দেব

শ্রীকিষাণ সারদা কলেজ, হাইলাকান্দি।। ১০৫

2. **Name of the Author : Dr. Nilima Goswami Sarma ( Assamese Department)**
   **Journal Name : Ajanta**
   **Title of the paper : Shishu - Sahityik Laksminath Boezbaruah : Eti Bishleshatmak Adhyayan**
   **Year of Publication : 2019.**

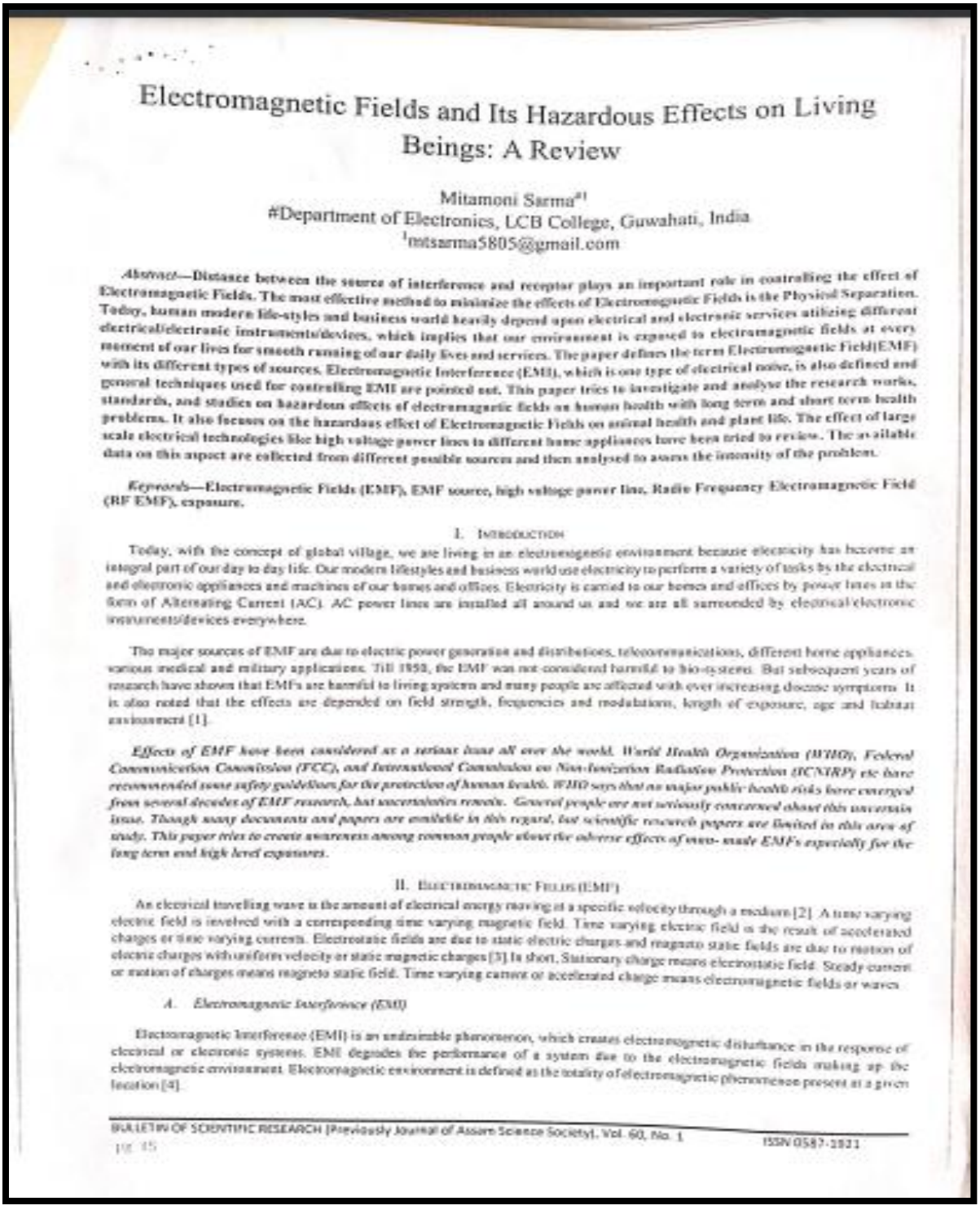




VOLUME - VIII, ISSUE - I - JANUARY - MARCH - 2019
AJANTA - ISSN 2277 - 5730 - IMPACT FACTOR - 5.5 (www.sjifactor.com)

13. শিশু-সাহিত্যিক লক্ষ্মীনাথ বেজবৰুৱা ঃ এটি বিশ্লেষণাত্মক অধ্যয়ন

ASSAMESE PART - I / *Peer Reviewed Referred and UGC Listed Journal - 40776* 82

3. **Name of the Author : Dr. Mitamoni Sarma ( Electronics Department)**
   **Journal Name : Bulletin of Scientific Research**
   **Title of the paper : Electromagnetic Fields and its Hazardous Effect on Living Beings: A Review".**
   **Year of Publication: 2019.**



# Electromagnetic Fields and Its Hazardous Effects on Living Beings: A Review

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***Abstract*—Distance between the source of interference and receptor plays an important role in controlling the effect of Electromagnetic Fields. The most effective method to minimize the effects of Electromagnetic Fields is the Physical Separation. Today, human modern life-styles and business world heavily depend upon electrical and electronic services utilizing different electrical/electronic instruments/devices, which implies that our environment is exposed to electromagnetic fields at every moment of our lives for smooth running of our daily lives and services. The paper defines the term Electromagnetic Field(EMF) with its different types of sources. Electromagnetic Interference (EMI), which is one type of electrical noise, is also defined and general techniques used for controlling EMI are pointed out. This paper tries to investigate and analyse the research works, standards, and studies on hazardous effects of electromagnetic fields on human health with long term and short term health problems. It also focuses on the hazardous effect of Electromagnetic Fields on animal health and plant life. The effect of large scale electrical technologies like high voltage power lines to different home appliances have been tried to review. The available data on this aspect are collected from different possible sources and then analysed to assess the intensity of the problem.**

***Keywords*—Electromagnetic Fields (EMF), EMF source, high voltage power line, Radio Frequency Electromagnetic Field (RF EMF), exposure.**

## I. Introduction

Today, with the concept of global village, we are living in an electromagnetic environment because electricity has become an integral part of our day to day life. Our modern lifestyles and business world use electricity to perform a variety of tasks by the electrical and electronic appliances and machines of our homes and offices. Electricity is carried to our homes and offices by power lines in the form of Alternating Current (AC). AC power lines are installed all around us and we are all surrounded by electrical/electronic instruments/devices everywhere.

The major sources of EMF are due to electric power generation and distributions, telecommunications, different home appliances, various medical and military applications. Till 1950, the EMF was not considered harmful to bio-systems. But subsequent years of research have shown that EMFs are harmful to living system and many people are affected with ever increasing disease symptoms. It is also noted that the effects are depended on field strength, frequencies and modulations, length of exposure, age and habitat environment [1].

*Effects of EMF have been considered as a serious issue all over the world. World Health Organization (WHO), Federal Communication Commission (FCC), and International Commission on Non-Ionization Radiation Protection (ICNIRP) etc have recommended some safety guidelines for the protection of human health. WHO says that no major public health risks have emerged from several decades of EMF research, but uncertainties remain. General people are not seriously concerned about this uncertain issue. Though many documents and papers are available in this regard, but scientific research papers are limited in this area of study. This paper tries to create awareness among common people about the adverse effects of man- made EMFs especially for the long term and high level exposures.*

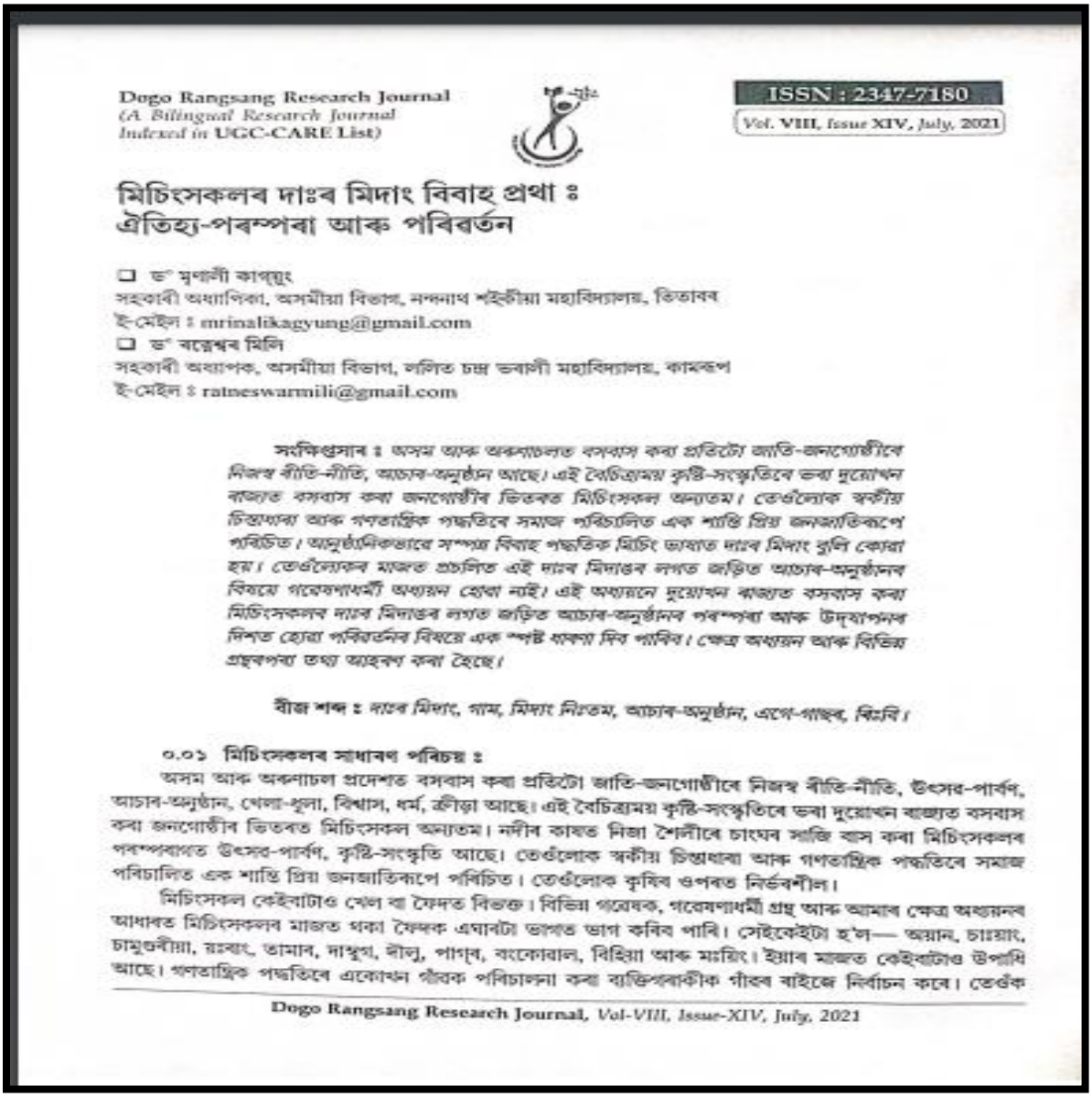
## II. Electromagnetic Fields (EMF)

An electrical travelling wave is the amount of electrical energy moving at a specific velocity through a medium [2]. A time varying electric field is involved with a corresponding time varying magnetic field. Time varying electric field is the result of accelerated charges or time varying currents. Electrostatic fields are due to static electric charges and magneto static fields are due to motion of electric charges with uniform velocity or static magnetic charges [3] In short, Stationary charge means electrostatic field. Steady current or motion of charges means magneto static field. Time varying current or accelerated charge means electromagnetic fields or waves.

### *A. Electromagnetic Interference (EMI)*

Electromagnetic Interference (EMI) is an undesirable phenomenon, which creates electromagnetic disturbance in the response of electrical or electronic systems. EMI degrades the performance of a system due to the electromagnetic fields making up the electromagnetic environment. Electromagnetic environment is defined as the totality of electromagnetic phenomenon present at a given location [4].

4. **Name of the Author : Dr. Ratneswar Mili ( Assamese Department)**
**Journal Name : Dogo Rangsang**
**Title of the paper : Mising Sakalar Daro Midang Bibah Pratha: Aitihya-Paramp aru Paribartan**
**Year of Publication: July - 2021.**



Dogo Rangsang Research Journal
*(A Bilingual Research Journal
Indexed in* UGC-CARE List)

ISSN : 2347-7180
*Vol.* VIII, *Issue* XIV, *July,* 2021

# মিচিংসকলৰ দাঃৰ মিদাং বিবাহ প্ৰথা ঃ ঐতিহ্য-পৰম্পৰা আৰু পৰিৱৰ্তন

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**সংক্ষিপ্তসাৰ ঃ** *অসম আৰু অৰুণাচলত বসবাস কৰা প্ৰতিটো জাতি-জনগোষ্ঠীৰে নিজস্ব ৰীতি-নীতি, আচাৰ-অনুষ্ঠান আছে। এই বৈচিত্ৰ্যময় কৃষ্টি-সংস্কৃতিৰে ভৰা দুয়োখন ৰাজ্যত বসবাস কৰা জনগোষ্ঠীৰ ভিতৰত মিচিংসকল অন্যতম। তেওঁলোক স্বকীয় চিন্তাধাৰা আৰু গণতান্ত্ৰিক পদ্ধতিৰে সমাজ পৰিচালিত এক শান্তি প্ৰিয় জনজাতিৰূপে পৰিচিত। আনুষ্ঠানিকভাৱে সম্পন্ন বিবাহ পদ্ধতিক মিচিং ভাষাত দাঃৰ মিদাং বুলি কোৱা হয়। তেওঁলোকৰ মাজত প্ৰচলিত এই দাঃৰ মিদাঙৰ লগত জড়িত আচাৰ-অনুষ্ঠানৰ বিষয়ে গৱেষণাধৰ্মী অধ্যয়ন হোৱা নাই। এই অধ্যয়নে দুয়োখন ৰাজ্যত বসবাস কৰা মিচিংসকলৰ দাঃৰ মিদাঙৰ লগত জড়িত আচাৰ-অনুষ্ঠানৰ পৰম্পৰা আৰু উদ্‌যাপনৰ নিশ্চিত হোৱা পৰিৱৰ্তনৰ বিষয়ে এক স্পষ্ট ধাৰণা দিব পাৰিব। ক্ষেত্ৰ অধ্যয়ন আৰু বিভিন্ন গ্ৰন্থৰপৰা তথ্য আহৰণ কৰা হৈছে।*

**বীজ শব্দ ঃ** *দাঃৰ মিদাং, গাম, মিদাং নিঃতম, আচাৰ-অনুষ্ঠান, এগে-গাছৰ, কিংকি।*

**০.০১ মিচিংসকলৰ সাধাৰণ পৰিচয় ঃ**

অসম আৰু অৰুণাচল প্ৰদেশত বসবাস কৰা প্ৰতিটো জাতি-জনগোষ্ঠীৰে নিজস্ব ৰীতি-নীতি, উৎসৱ-পাৰ্বণ, আচাৰ-অনুষ্ঠান, খেলা-ধূলা, বিশ্বাস, ধৰ্ম, ক্ৰীড়া আছে। এই বৈচিত্ৰ্যময় কৃষ্টি-সংস্কৃতিৰে ভৰা দুয়োখন ৰাজ্যত বসবাস কৰা জনগোষ্ঠীৰ ভিতৰত মিচিংসকল অন্যতম। নদীৰ কাষত নিজা শৈলীৰে চাংঘৰ সাজি বাস কৰা মিচিংসকলৰ পৰম্পৰাগত উৎসৱ-পাৰ্বণ, কৃষ্টি-সংস্কৃতি আছে। তেওঁলোক স্বকীয় চিন্তাধাৰা আৰু গণতান্ত্ৰিক পদ্ধতিৰে সমাজ পৰিচালিত এক শান্তি প্ৰিয় জনজাতিৰূপে পৰিচিত। তেওঁলোক কৃষিৰ ওপৰত নিৰ্ভৰশীল।

মিচিংসকল কেইবাটাও খেল বা ফৈদত বিভক্ত। বিভিন্ন গৱেষক, গৱেষণাধৰ্মী গ্ৰন্থ আৰু আমাৰ ক্ষেত্ৰ অধ্যয়নৰ আধাৰত মিচিংসকলৰ মাজত থকা ফৈদক এঘাৰটা ভাগত ভাগ কৰিব পাৰি। সেইকেইটা হ'ল— অয়ান, চাঃয়াং, চামুগুৰীয়া, ৰঃবাং, তামাৰ, দাম্বুগ, দীলু, পাগ্ৰ, বংকোৱাল, বিহিয়া আৰু মঃয়িং। ইয়াৰ মাজত কেইবাটাও উপাধি আছে। গণতান্ত্ৰিক পদ্ধতিৰে এখোন গাঁৱক পৰিচালনা কৰা ব্যক্তিগৰাকীক গাঁৱৰ ৰাইজে নিৰ্বাচন কৰে। তেওঁক