

Comparative Analysis of Predicted Gene Expression among Crenarchaeal Genomes

Shibsankar Das^{1*}, Brajadulal Chottopadhyay², Satyabrata Sahoo³

¹Department of Mathematics, Uluberia College, Uluberia 711315, India,

²Department of Physics, Jadavpur University, Kolkata 700032, India,

³Dhruba Chand Halder College, South 24 Parganas 743372, India

Research into new methods for identifying highly expressed genes in anonymous genome sequences has been going on for more than 15 years. We presented here an alternative approach based on modified score of relative codon usage bias to identify highly expressed genes in crenarchaeal genomes. The proposed algorithm relies exclusively on sequence features for identifying the highly expressed genes. In this study, a comparative analysis of predicted highly expressed genes in five crenarchaeal genomes was performed using the score of Modified Relative Codon Bias Strength (MRCBS) as a numerical estimator of gene expression level. We found a systematic strong correlation between Codon Adaptation Index and MRCBS. Additionally, MRCBS correlated well with other expression measures. Our study indicates that MRCBS can consistently capture the highly expressed genes.

Keywords: Archaea, Codon Adaptation Index, codon bias index, codon usage, GC content, gene expression, predicted highly expressed genes

Introduction

The expression of functional product of a gene is a foundation of modern biotechnology. Sixty-one codons to translate 20 amino acids and three codons to stop translation are employed in the genetic code. These codons are deciphered in the ribosome by complementary tRNAs that are attached with the proper amino acids [1]. The degeneracy of the genetic code enables same protein to be translated by many alternate nucleotide sequences. The frequency of different codons varies significantly between different organisms, and also between highly and lowly expressed genes in the same organism. There is a continuing speculation regarding the factors which influence these codon preferences. Attempts have been made to explain the codon distributions in protein coding genes as well as the variations in codon usages as mutation-selection stability among different synonymous codons in each organism [2, 3]. Researchers have assumed that codon bias which tends to diminish the diversity of isoacceptor tRNAs may decrease the metabolic

load [4, 5]. Whatever may be the reason behind codon usage bias, it has gradually developed the idea that codon bias can have a thoughtful influence on the expression of genes. The equilibrium between mutation and natural selection on translational efficiency is supposed to cause of codon bias [6, 7] and stronger relative codon usage bias (RCB) in highly expressed genes than lowly expressed genes is anticipated due to the natural selection [8]. The recent technical advances e.g., cDNA microarray, Serial Analysis of Gene Expression (SAGE), etc. are large-scale, high-throughput experimental methods which need material and information processing systems to match. Furthermore, a massive investment of time and resources put an obstacle before the investigators. Thus, to identify the highly expressed genes in vast majority of organisms, researchers were looked beyond the direct experimental methods. So, predicting gene expression level using computational approaches rather than experimental is more interesting because it evades expensive and laborious experiment.


It is observed that highly expressed genes will preferably choose an optimal subset of codons identified by the most

Received August 16, 2016; Revised November 28, 2016; Accepted January 26, 2017

*Corresponding author: Tel: +91-33-26610332, Fax: +91-33-26610240, E-mail: ssdas80@gmail.com

Copyright © 2017 by the Korea Genome Organization

© It is identical to the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>).


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

In Silico Prediction of Gene Expression Based on Codon Usage: A Mini Review

Abstract

The present review deals with the computational approach for estimating the average expression level of proteins in microorganisms. Based on the notion that codon assignment as well as codon usage patterns might play a key role to the solution of practical problems of gene expression, alternative models are proposed and developed to identify the highly expressed genes in diverse genomes. Facts and ideas presented here aims at deriving biological information from genome sequences by means various statistical analyses and appropriate design of algorithms.

Keywords: Codon usage; Codon bias; Gene expression; Predicted highly expressed genes

Mini Review

Volume 4 Issue 2 - 2017

Ria Rakshit¹ and Satyabrata Sahoo^{2*}

¹Department of Botany, Dhruba Chand Halder College, India

²Department of Physics, Dhruba Chand Halder College, India

*Corresponding author: Satyabrata Sahoo, Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, WB, India, Email: dr_s_sahoo@yahoo.com

Received: July 03, 2017 | Published: August 23, 2017

Introduction

The complexity and diversity of genomic function can only be understood at the nucleotide level. The genetic code uses sixty one codons to translate twenty amino acids and three to stop translation. The genes in DNA sequence encode proteins, which perform all the functions necessary in the cell. Regulation of gene expression, thus, plays a central role in defining cell viability and is dominated by a number of genes that are involved in protein biosynthesis, mutation, and folding. The essential functions of many of the gene products strongly depend on codon usage bias that corresponds to abundant tRNAs and thus, biased amino acid composition of proteins indicating the high biological significance of these genes. Recently there has been considerable interest in finding the informational content in gene sequences. As automated sequencing techniques have started to produce a rapidly growing amount of raw DNA sequences, the extraction of information from these sequences becomes a scientific challenge. These sequences carry relevant biophysical information in the form of a one dimensional chain of four nucleotide bases. The availability of the complete genomic sequences has made it possible for researchers to develop approaches that focus on the systematic properties of regulatory and metabolic networks, and to investigate gene expression and regulation in the context of a global cellular work. Despite much effort spent, it is still an open question what kind of correlation exists in gene sequences which rule the tentative function of the particular gene. Hence, our basic task in this review is to search for correlation which accommodates the gene expression level for most situations of its habitat, energy sources and life style.

The immense progress made recently in molecular biology has revealed that genomes are of extraordinary complexity. The sequencing of DNA has shed some light on one of the main characteristic features of the genomic sequence, namely its local and global compositional heterogeneity. The biochemical techniques alone are not sufficient to uncover the genetic information from these sequences. On the other hand, scientists

in this field are trying combinations of different methods used in different scientific field to understand this complex structure and the computational tools based on concepts used in many scientific fields have recently found to be relevant. A relevant contribution is due to statistical methods, namely Markovian approximation, correlation function and Fourier transform etc. A considerable attention in this field has been devoted to diverse physical phenomena exhibiting cluster behaviour in space or time domains. Such cluster behaviour appears in processes in fluid mechanics, solid state physics, data transmission system and Brownian motion. The possible relevance of scale invariance and fractal concepts to the structural complexity of genomes has been the subject of considerable increase interest today.

During the past few years, there has been intense discussion about the existence, the nature and the origin of the correlations in DNA sequences. The study of the mutual information function, the power spectrum, the scaling properties of the moments and the fluctuations Voss [1] have pointed towards hidden correlations in these sequences. The genomes have parts that code for proteins and parts that do not. In relatively higher organisms, it is the non-coding parts that make up the bulk of the sequence. The coding regions are few and far between. It has been proposed that the long range fractal sort of correlations appear to be present more in the non-coding parts than in the CDS. In this view the CDS, aside of its 3-periodicity, has random nucleotide distribution. The initial reports on long range correlations in NCDS have generated contradicting responses. Some support Peng et al. [2]; Nee [3]; Li et al. [4] the existence of the long range correlations in NCDS, while some disagrees. However the conclusions are inconsistent with one another and doubt the nature of correlation existing in the different parts of the sequences.

Recently there have been considerable studies to predict the highly expressed genes in prokaryotes and in eukaryotes. Genes can be expressed as a wide range of levels. Numerous studies have investigated gene expression by diverse technology. It is well established that the gene expression is regulated at several levels:

SOCIALIST PERSPECTIVE

DECEMBER 2016-MARCH 2017

Vol. 44 No 3-4

A Quarterly Journal of Social Sciences

- THE NAXALITE MOVEMENT: A POSTCOLONIAL PERSPECTIVE
- THE NAXALBARI MOVEMENT: LOOKING BACK
- CHARU MAJUMDAR AND HIS ROLE IN THE NAXALBARI MOVEMENT: A VARIED UNDERSTANDING
- 'SPRING THUNDER' AND ITS IMPACT ON THE STUDENT MOVEMENT OF WEST BENGAL: 1967-1972
- NAXALITE MOVEMENT: A SELECT BIBLIOGRAPHY
- WEST BENGAL PANCHAYAT ELECTION, 2018: BATTLE IN RURAL BENGAL
- THE GUJARAT ASSEMBLY ELECTIONS 2017: REFLECTIONS OF AN AGRARIAN CRISIS
- JAWAHARLAL NEHRU AND THE BUILDING OF A SOVEREIGN NATIONAL STATE
- LOCATING THE STRUGGLE OF MUSLIM WOMEN IN DEMOCRATIC POLITICS OF INDIA
- SOCIO-ECONOMIC ACTIVITIES AND ROLE OF TRIBAL WOMEN FOR PRESERVATION OF FOREST ENVIRONMENT: A CASE STUDY OF FOREST VILLAGES IN DARJEELING HILLS
- THE LEFT FRONT REGIME IN WEST BENGAL: 1977-2011: A REVIEW ESSAY
- SELECT READINGS ON CONTEMPORARY ISSUES



**Council for Political Studies
Calcutta**

Principal
PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Rupees One Hundred only

Socialist Perspective

Vol. 44 No. 3-4

December 2016-March 2017

CONTENTS

From the Editor's Desk	91
SPECIAL ARTICLES	
The Naxalite Movement: A Postcolonial Perspective	93
<i>Pradip Basu</i>	
The Naxalbari Movement: Looking Back	105
<i>Debi Chatterjee</i>	
Charu Majumdar and His Role in the Naxalbari Movement: A Varied Understanding	119
<i>Monalisa Basu</i>	
'Spring Thunder' and Its Impact on the Student Movement of West Bengal: 1967-1972	137
<i>Arindam Datta</i>	
Naxalite Movement: A Select Bibliography	158
West Bengal Panchayat Election, 2018: Battle In Rural Bengal	161
<i>Biswanath Chakraborty</i>	
The Gujarat Assembly Elections 2017: Reflections of an Agrarian Crisis	189
<i>Trijita Gonsalves and Abhijit Pathak</i>	
Jawaharlal Nehru and the Building of a Sovereign National State	213
<i>Tapan Kumar Chattopadhyay</i>	



PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

The Gujarat Assembly Elections 2017: Reflections of an Agrarian Crisis

*Trijita Gonsalves**

*Abhijit Pathak***

Introduction

The results of the Gujarat assembly elections were declared on 18 December 2017. It was an extraordinary election that witnessed a narrowly contested fight between the Bharatiya Janata Party (BJP) and the Indian National Congress (INC) along with the emergence of a host of young and popular state leaders who challenged the ruling dispensation on the streets of Gujarat. The result of this election brought the issue of farmers' distress to the forefront of the political discourse at the national level.

The rally of the thirty thousand farmers in Delhi a month before the Gujarat elections was neither able to attract the attention of the national media nor the central government; the poor electoral performance of the BJP in Saurashtra could do it. It is true that the issues of farmers not receiving remunerative prices for their products was raised in the election process and speeches of the opposition leaders but it never received as much media attention as the issues like demonetization, GST and caste reservation. These were regarded as the deciding factors in the Gujarat election 2017. There is no doubt that GST was a serious issue in this election affecting urban voters of Gujarat; therefore it necessitated the

* The author is Assistant Professor in Political Science, Department of Political Science, Lady
Brabourne College, Kolkata.

** The author is Assistant Professor in Economics, Department of Economics, Dhruba Chand
Halder College, Daksbin Barasat, South 24 Parganas.

PRINCIPAL

Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

১২.৮৮০৬০০

জীবন
কাণ্ড

ISSN : 2249-4782
UGC Refereed Journal
SL No. 40745

স্রমকালের জীবনকাণ্ডি প্রবন্ধ সংকলন

জুলাই-ডিসেম্বর ২০১৭ (ষষ্ঠা সংখ্যা)

ভাবনা বিন্যাসে—

সন্দীপকুমার মণ্ডল পাবলো শাহি
বিনীতা রানী দাস কুতুবুদ্দিন মোল্লা সিদ্ধার্থ খাঁড়া
তৌসিফ আহমেদ মধুরিমা ভট্টাচার্য মেহেবুব হোসেন...

প্রিন্টার
Chitra Chandra Prakashan
1, 10/1, Bhabani, P. S. Bhabani
Sunderbani, P. S. Bhabani

সম্পাদক

নাজিবুল ইসলাম মণ্ডল

বিপন্নতা কাটিয়েছি, বিপন্ন বোধ্য করে তোলার ক্ষেত্রে সহজ হওয়া গেছে জিয়নকাঠির পদযাত্রা! পারানি নেই, তবু পার হতেই হবে—। এই যন্ত্রণাকে সঙ্গে নিয়ে চলছি, 'জিরো' টাকে পুঁজি করে নিয়ে, না, জিরোটাকে 'হিরো' করবার বাসনা যে নেই তা বলবো না! তবে যারা 'হিরো', আসলে 'He-row'র মতো। সাজানো বাগানে সখের সাক্ষরীয় মতো—আমি তা কখনও নই। আমি মাথা ঘামাই—কোন কামাইয়ের তোয়াক্কা না করেই। শুধু এইটুকু বৃষ্টি মাথার উপর 'সত্য' ঝুলছে। হোক না He man'রা দণ্ডবৎ সামনে। শুধু ঠিকঠিক সময়ে বাতাসে এক-একটি করে গল্পের টুকরো ভাসিয়ে দিলেই হলো।

তেমনই আমাদের এবারের উদ্যোগ প্রবন্ধ সংকলন। সমকালের অনেক অধ্যাপক গবেষকদের কথা মাথায় রেখে রীতিমত একটি ঈর্ষণীয় 'সাজেয়া' তৈরি করা গেছে, 'সাজেয়া' কথাটার মধ্যে আপত্তিকর অনুযোগ থাকতে পারে। কিন্তু আমার নিদারুণ আশ্বস্তি আছে। কেন থাকবে না? আমার ঘরের মধ্যে গ্রাম্যতা। আবার মনের মাঝে শহরের অদমা উত্তাপ, আমাকে হজম করতে হয়। সেখানে সাহিত্য-ইতিহাস-দর্শন-ভূগোল মিলেমিশে একাকার হয়। আর সেই 'হয়' থেকে নতুন সংকলনের জন্ম। কলকাতা থেকে প্রায় একশো কি.মি. পথ দূর থেকে শহরের তথ্যিষ্ট পাঠক-গবেষকদের দৃষ্টি আকর্ষণ করা অন্ততঃ আমার কাছে খুব সহজ মনে হয়নি। আর সেই লক্ষ্য থেকে এক্ষণে প্রবন্ধ যাত্রা।

বঙ্গভাষা ও সাহিত্যে প্রবন্ধের আদর-কদর-গুরুত্ব অপরিমীম। বন্ধনহীন বন্ধনে একে আটকে রাখা যায় না, যায়নি। আমরা উদযাপন করছি মাত্র। গতানুগতিক সারস্বত ভাবনারও কিছু আশু পরিবর্তন ঘটিয়ে এমনই বণ্টন ব্যবস্থা। মনোগ্রাহী পাঠক-গবেষকদের চাহিদাকে মান্যতা দিয়েই।

এ সংখ্যায় স্কুল-কলেজ-বিশ্ববিদ্যালয়ের শিক্ষকদের হার্দিক সমাবেশ ঘটেছে অকপটে। আমাদের চাহিদার চেয়েও অংশগ্রহণ উজ্জ্বল হয়েছে। লিখেছেন— সন্দীপকুমার মণ্ডল, বিনীতা রাণী দাস, কুতুবুদ্দিন মোম্মা, পাবলো শাহি, মধুরিমা ভট্টাচার্য, নিলাদ্রীনারায়ণ লাহা, তৌনিফ আহমেদ, সিদ্ধার্থ ঝাড়া, মেহবুব হোসেন, অমিত চক্রবর্তী, মোসারফ হোসেন সহ ২৬ জন প্রাবন্ধিক গবেষক। তাঁদের আলোচনা পর্যালোচিত হলে আমাদের আয়োজন বিকশিত হবে। সার্থক হবে এ উদ্যোগ। তাহলে আমরা জিয়নকাঠি পরিবারের মানুষ-জন, অগ্রসর হবে আগামীর সময়ের দিকে। আরও ভালোর দিকে ক্রমশঃ যাতে জটিল হতে পারি। মুক্ত মন-যুক্ত হোক দুর্নিবার সম্পর্কের সন্নিবেশে-নতুন পথের যাত্রী হিসাবে।

জীবন মণ্ডল হাট

জয়নগর, দক্ষিণ চব্বিশ পরগনা

নাজিবুল ইসলাম মণ্ডল

সূচিপত্র

কবিতা প্রদর্শন—বুদ্ধদেব বসু ও জীবনানন্দ দাশ	সন্দীপকুমার মণ্ডল	১১
মুনশী আবদুল করিম সাহিত্যবিশারদের প্রাচ্যবিদ্যার স্কুল	ড. পাবলো শাহি	২২
পরিব্রাজক বিবেকানন্দের ভাবনাবৈচিত্র্য : প্রদর্শন গ্রন্থ 'পরিব্রাজক'	বিনীতা রাণী দাস	৩০
তুলসী লাহিড়ীর চৌর্যনন্দ : নৈতিক অধঃপতনের নির্মম চিত্র	ড. মহঃ কুতুবুদ্দিন মোম্মা	৪৩
যৌনতার নানা দিন : অচিন্ত্যকুমার সেনগুপ্তের গল্প	মধুরিমা ভট্টাচার্য	৫৪
রবীন্দ্রপত্রে গ্রামোন্নয়ন প্রসঙ্গ	অমিতকুমার চক্রবর্তী	৬৪
'সুরমা নদীর চোখে জল' উপন্যাস : দেশভাগের যন্ত্রণা এবং সমাজ জীবন ও সংস্কৃতি	চাঁদমালা খাতুন	৭১
'নির্বাচিত বাংলা রাজনৈতিক উপন্যাসে বামফ্রন্ট মৌলপর্বের গ্রামীণ রাজনীতি'	মেহবুব হোসেন	৮০
সুনীল গঙ্গোপাধ্যায়ের উপন্যাস : সময়ের দর্পণে	কবিকা বিশ্বাস	৯০
অন্নদাশঙ্কর রায়ের ছোটগল্প : সস্ত্রীতির কলতান	ড. তৌনিফ আহমেদ	১০০
পৌরাণিক সোম ও তারা : উনিশের মধুসূদন ও একুশের ড. দীপক চন্দ্রের বিশ্লেষণী দৃষ্টিকোণে	মর্জিনা খাতুন	১০৬
স্বাধীনতা-উত্তর বাংলা নাটকে মহাভারতের কাহিনির পুনর্নির্মাণ	সিদ্ধার্থ ঝাড়া	১১৫
বাংলার পোল উৎসব ও রবীন্দ্রনাথ ঠাকুর	রত্নমালা নন্দর	১৩৫
The Role of Junk Art in Indian Contemporary Art	Govind Prasad	১৪৮
শেখভাগ দাস ও বাংলাদেশের গল্প	ড. রিজওয়ানা নাসিরা	১৫৩
মঙ্গলকাব্যে নিম্নবিত্ত বৃত্তিধারী মানুষ :	বাপী নন্দর	১৫৮
সামাজিক পারিবারিক অবস্থান	ড. চন্দ্রাণী মুখার্জী	১৭২
দাম্পত্য চিত্রে শিবায়ন কাব্য :		
প্রদর্শন কবি রামেশ্বর		

PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

4. Kumar, S.R. (1999). Modern Indian Art: A Brief Overview. Taylor & Francis, 58, 14-21. <http://www.jstor.org/stable/777856>
5. Lippard, Lucy. (1997). Six years: The dematerialization of the art object from 1966 to 1972. London, England.
6. Mago, P.N. (2000). Contemporary art in India: A perspective, NBT, New Delhi, India.
7. Mitter, P. (2007). The triumph of Modernism: India's artists and the avant-garde 1922-1947. London.
8. Passi, R., Beauty Renewed: Recycled Art & Artists in India by (Publish by Timeless book)
9. Raman, A.S. (1952). Art in India Today. Journal of ISIAO, 3, 21-28. <http://www.jstor.org/stable/29757988>
10. Seid, B. (2007). New narrative: Contemporary Art from India. India, Chicago.
11. Shanken, A. E. (2002). Art in the Information Age: Technology and Conceptual Art.
12. Sinha, G. (2009). Art and visual culture in India 1857-2007. Mumbai, India.
13. Stanley Wolpert, (2005), Encyclopaedia of India Vol. 1-4, Thomson Gale Group, ISBN 0-684-31512-2
14. Suri, S., Lochan, R. & Rohra, N. (2010) India Perspective: special Issue of India. Retrived from https://issuu.com/indiandiplomacy/docs/india_perspectives-special_issue_on_indian_contemp/69
15. Trash to treasure 28 recycled crafts by Prime Pulishing LLC

Website and Internet sources:

- § <https://www.mojarto.com/blogs/when-junk-trash-turn-into-art-works>
- § http://EzineArticles.com/expert/Annette_Labedzki/252070
- § <http://ezinearticles.com/?Recycled-Art-and-Found-Art-Styles&id=3421752>
- § <http://timesofindia.indiatimes.com/city/chennai/Art-from-trash/articleshow/12817242.cms>
- § date 13-02-2017 IST 9:18
- § <http://www.theweekendleader.com/Innovation/2556/art-from-waste.html>

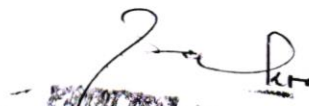
দেশভাগ দাস্তা ও বাংলাদেশের গল্প

ড. রিজওয়ানা নাসিরা

১৯৪৭-এ ভারতের স্বাধীনতা লাভের অব্যবহিত পূর্বে ১৯৪৬-৪৭ দেশভাগ ও সাম্প্রদায়িক দাঙ্গা বাংলাদেশের এক অনপন্যে ক্ষত। ইতিপূর্বে ১৯০৫ খ্রি: লর্ড কার্জন শাসনকার্যের সুবিধার অজুহাতে বাংলার জাতীয়তাবাদী শক্তিকে খর্ব ও দুর্বল করতে বঙ্গভঙ্গ আইন জারি করেছিলেন। সেদিন সচেতন বাঙালির এবং সেই সঙ্গে ভারতবাসীর মিলিত প্রয়াসে ও প্রতিবাদে সরকার ১৯১১ খ্রি: বঙ্গভঙ্গ রদ করতে বাধ্য হয়েছিল। কিন্তু ১৯৪৬-৪৭ এর বাংলা ভাগ আরও করুণ ও মর্মান্বিত। ভারতের স্বাধীনতা আন্দোলনে হিন্দু-মুসলমান উভয় সম্প্রদায়ের যৌথ প্রয়াস অনস্বীকার্য। স্বাধীন ভারতে মুসলিমরাও ক্ষমতার বা শাসকের দাবিদার হতে পারে, তাই আগে থেকেই তাদের দাবি মেটাতে জহরলাল নেহেরুর মহাত্মা গান্ধীকে প্রভাবিত করে ভারত ভাগ করেন—হিন্দুহান ও পাকিস্তান এবং এই সূত্রে ভাগ করেন বাংলাকেও। অন্যদিকে মুসলিমরাও স্বাধীনতার পর ভারতবর্ষ হিন্দু অধ্যুষিত ভারতবর্ষ হবে—এই ভয় থেকে বাংলাভাগকে মনে মনে মেনে নেন। ফলে মুসলিম প্রধান পূর্ববঙ্গকে পূর্ব-পাকিস্তান নাম দিয়ে পাকিস্তানের সঙ্গে যুক্ত করা হয় এবং বাকি অপেক্ষাকৃত হিন্দুপ্রবাস পশ্চিমবঙ্গ ভারতের অন্তর্ভুক্ত হয়। লর্ড কার্জন অর্ন্ত বঙ্গদেশে যে ফটিলরেখা টেনে দিয়েছিলেন তা তখন জনরোষে সার্থকতা না পেলেও স্বাধীনতার মনোরথ শান্তি-স্বস্তির অব্যবহিত পূর্বেই কতিপয় স্বার্থান্বেষী নেতাদের স্বার্থচরিতার্থতার সেই ফটিলরেখা চিরতরে সম্পূর্ণরূপে ভাগ হয়ে যায়।

ভারতভাগের নামে বাংলা ভাগে বাংলায় হয়েছিল অপূরণীয় ক্ষতি। প্রাণের ভয়ে কিংবা নিরাপদ আশ্রয়ের আশায়, অথবা অর্থনৈতিক কারণে বা ধর্মের কারণে—যেকোন কারণেই হোক না কেন দলে দলে মানুষ পূর্ববঙ্গ থেকে পশ্চিমবঙ্গে এবং পশ্চিমবঙ্গ থেকে মানুষ পূর্ববঙ্গে আসতে থাকে। উভয় বাংলায় বাঙালির যাতায়াতের হ্রাস চলতে থাকে। চলতে থাকে অসাধুতা, ধূর্ততা, ব্যবসায়ী মনোবৃত্তি চরিতার্থতা, অর্থনৈতিক শোষণ, নির্বাসন, নারী লোলুপতা, জুলুমবাজি ইত্যাদি। নিলামে বা জলের দামে জায়গা-বাস্তিভিটা কেনা-বেচা চলতে থাকে। ফলে প্রচণ্ড ক্রিপ্ততায় উভয় বাংলায় গুরু হয় সাম্প্রদায়িক দাঙ্গা, রক্ত নিয়ে হোলি খেলা। উভয় বাংলায় দেখা দিল প্রচণ্ড সংকট ও সমস্যা—ছিন্নমূল সমস্যা, অয়-বস্ত্র সমস্যা ইত্যাদি। এই সমস্ত সমস্যার সুযোগ নিয়ে কেউ কেউ ব্যবসায়ী বাসনা, কেউ বা যৌন-লালসাও চরিতার্থ করেছে। বাংলার ও বাঙালির কাছে এ এক কলঙ্কের স্মৃতিচিহ্ন। ১৯৩৯-৪৫ দ্বিতীয় বিশ্বযুদ্ধ, ১৯৪২-এর আগস্ট আন্দোলন বা ভারতছাড় আন্দোলন, ১৯৪৩-এর বন্যা, ১৯৪৪-এর দুর্ভিক্ষ বা পঞ্চাশের মহত্বর, ১৯৪৬-৪৭-এর দাঙ্গা প্রভৃতি বাঙালির জীবনে খাদ্য-বস্ত্র-বাসস্থানে আকাল ডেকে এনেছিল। মানুষের দুঃখ-দুর্দশা, আশা-হতাশার কালো ছায়া বাঙালির জীবনে কালরাত্রি হয়ে উঠেছিল। বাঙালির সেই দুঃসময়কে অবলম্বন করে উভয় বাংলার

১৫৩


Dr. Rejwan Nasir
P.O. Box 10, Barisal, P.S.
Barisal, Bangladesh

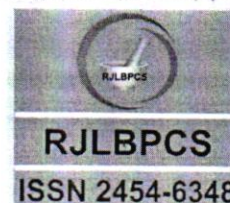
3.3.2 Number of research papers by teachers in the Journals notified on UGC website during the last five years (JULY 2017 - JUNE 2021)

S.No.	Title of paper	Name of the faculty	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal
✓	Deshbhag, danga o bangladesher golpo'	Rizwana Nasira	Bengali	Samokaler jionkathi'	Jul-Dec, 2017	2249-4782	UGC Refereed, SL No: 40745
2	Abiswassya : Prem o papbodher ovinabo kahini'	Rizwana Nasira	Bengali	Samiokaler jionkathi'	Jan-June, 2018	2249-4782	UGC Refereed, SL No: 40745
3	Fire dekha . Maya goalinir hat'	Rizwana Nasira	Bengali	Samokaler jionkathi, Sagardwiper katha	Jan-June, 2019	2249-4782	UGC Refereed, SL No: 40745

Dr. R. D. Bhowmik, P.S. - Jharkhand
South 24 Parganas, Pin- 743377
PRINCIPAL



Life Science Informatics Publications

Research Journal of Life Sciences, Bioinformatics,
Pharmaceutical and Chemical SciencesJournal Home page <http://www.rjlbpcs.com/>

Original Research Article

DOI: 10.26479/2018.0405.58

**COMPREHENSIVE STUDY OF COMPOSITE tRNA GENES IN
ARCHAEL GENOME**Uttam Roy Mandal^{1*}, Shib Sankar Das², Brajadulal Chattopadhyay³, Satyabrata Sahoo⁴,

1. Department of Mathematics, Raidighi College, Raidighi, South 24 Parganas, W.B., India.

2. Department of Mathematics, Uluberia College, Uluberia, Howrah, W.B., India.

3. Department of Physics, Jadavpur University, 188 Raja S.C. Mullick Road, Kolkata, W.B., India.

4. Department of Physics, Dhruva Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., India.

ABSTRACT: The analysis of archaeal tRNA genes is gradually becoming more important in the field of bioinformatics for its essential role in evaluating the origin and evolution of tRNA molecule. tRNA genes in archaea often have introns intervening between exon sequences. The structural motif at the boundary between exon and intron is the bulge-helix-bulge. Precise insilico identification of the splice-sites on the bulges at the exon-intron boundaries conduce us to infer that a single intron-containing composite tRNA gene can give rise to more than one gene product. A thorough search of different tRNA molecules in archaeal genomes revealed that tRNA^{Ala} (TGC) and tRNA^{Arg} (GCG), and tRNA^{Gln} (TTG) and tRNA^{Pro} (TGG) in *Aciduliprofundum boonei* and tRNA^{Lys} (CTT) and tRNA^{Gln} (TTG) in *Acidilobus Saccharovonans* were co-located. Thus, assuming alternate splicing mechanism we speculated a number of composite tRNA genes giving rise to tRNA isodecoders in archaeal genomes which required another layer of gene arrangement to settle their tRNA gene repertoires.

KEYWORDS: tRNA gene, bulge-helix-bulge, alternate splicing, overlapping tRNA, canonical intron.

Corresponding Author: Uttam Roy Mandal* M.Sc. M.Tech

Department of Mathematics, Raidighi College, Raidighi,


South 24 Parganas, West Bengal, India.

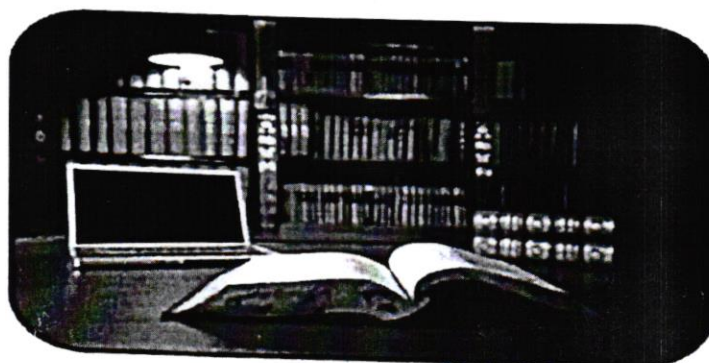
Email Address: urmandal77@raidighicollege.in

© 2018 Life Science Informatics Publication All rights reserved

Peer review under responsibility of Life Science Informatics Publications

2018 Sept – Oct RJBPCS 4(5) Page No.823

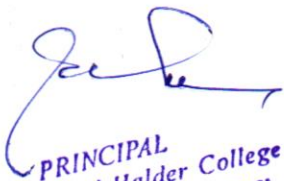

PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



Sr. No	Title And Name Of The Author (S)	Page No
1	DETERMINATION OF HEAVY METAL CONCENTRATION (Cd, Cu, Cr, Pb) IN LEACHATE, SURFACE WATER AND FLOATING VEGETATION (EICHORNIA CRASSIPES (C. MART.) SOLMS (1883) SAMPLES AND ITS BIOREMEDIATION EFFICACY (TRANSPORTATION INDEX (Ti) AND BIOCONCENTRATION FACTOR (BCF)) IN PALLIKARANAI MARSH, CHENNAI, INDIA Dr. M.C. John Milton , Magesh .D, Ranjitha J. and Ignaciammal, Dr.Ganesh.J and Juniet Maria Jose	1
2	IMPACT OF VIDEO-BASED DIGITAL LEARNING METHOD IN LEARNING CHEMISTRY AMONG THE STUDENTS OF STANDARD IX Bindu K. Varghes and Dr. G. Singaravelu	11
3	ROLE OF SOCIAL MEDIA IN WOMEN'S SAFETY (A study of educated women in Bhopal city of Madhya Pradesh) Dr. Kavita Raikwar	18
4	KNOWLEDGE ABOUT GREEN CHEMISTRY OF TRIBAL AND NON-TRIBAL STUDENTS AT HIGHER SECONDARY LEVEL Biswajit Sahoo and Dr. Satyajit Kar	26
5	A STUDY OF PRODUCTION PROCESS IN CLAY DOLL OF GHURNI IN WEST BENGAL Pritikana Char	37

[Signature]
 PRINCIPAL
 Dhruva Chand Halder College
 P.O.- D. Barasat, P.S.- Jaynagar
 South 24 Parganas, Pin- 743372

6	IMPACT OF MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT IN KODAGU DISTRICT OF KARNATAKA STATE Dr. Shekara B. and Ramesh Rangappa	47
7	HOW MOTIVATED ARE THE TEACHERS? Rehana Khatun and Dr. Kushal De	52
8	AUROBINDO: A PRECEPTOR OF SPIRITUAL MORALITY Dr. Bijay Kumar Sarkar	60
9	AN EXPERIMENTAL STUDY ON DEPRESSION IN GERIATRIC FEMALE POPULATION: WITH REFERENCE TO PHYSICAL EXERCISE PROGRAM Pramod Kumar Yadav and Prof. C.D. Agashe	64
10	A STUDY ON ATTITUDE OF COLLEGE STUDENTS TOWARDS MOBILE LEARNING Banashri Mandal	68
11	CORRESPONDENCE THEORY OF TRUTH: A REVIEW Arpita Singh	76
12	NEHRU AND NATION – BUILDING Dr. Anupma Arya	79
13	EFFECT OF STRECHING EXERCISES ON PHYSICAL FITNESS PERFORMANCE Dr. Hartej Singh	81
14	EARLY WARNING SYSTEM FOR CONFLICT PREVENTION: ROLE OF INTERNATIONAL ORGANISATIONS Ram Pravesh Kumar	90
15	OUT-MIGRATION AND LIVELIHOOD IN RURAL INDIA Md Musharuddin SK	100


 PRINCIPAL
 Dhruba Chand Halder College
 P.O.- D. Barasat, P.S.- Jaynagar
 South 24 Parganas, Pin- 743372

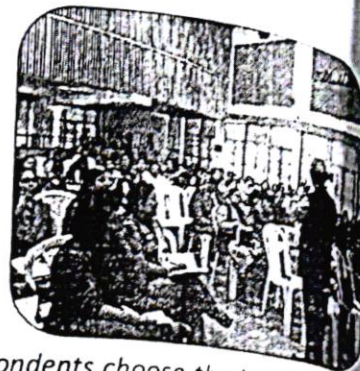


HOW MOTIVATED ARE THE TEACHERS?

Rehana Khatun¹ and Dr. Kushal De²¹Assistant Teacher, Sankrall Azizla Girls' Junior High Madrassa Unit II.²Assistant Professor, Dhruba Chand Halder College.

ABSTRACT

This paper is based on an original empirical study carried out by the authors to assess the level of need satisfaction or motivation according to Maslow's theory from a representative sample of fifty in-service secondary schoolteachers. The teachers are the backbone of any society and the future blueprint of a country is crafted by teachers in the classrooms and hence an analysis of their motivational level is essential for any society. The study is based on responses obtained from the teachers during personal interviews carried out with the help of questionnaire targeting specific issues on needs and motivational level. The summarised and tabulated results show that 86% of the respondents choose the job due to some benefits associated with it rather than looking for intrinsic satisfaction from teaching. Achievement from the job, recognition and feedback about good performance, responsibility and opportunity to grow and advance are considered to be major motivators at work. Analysing the ground realities it is found that none of these motivators are adequately presented to the teachers surveyed. Individual performance measurement and appraisal is rarely done. The teachers are only responsible for taking their allotted classes without any form of feedback about their performances. Few teachers have any idea about their achievements in years of service or their future growth prospects. Again, only a negligible few are willing to work hard for any future prospects. The focus of attention of most teachers are towards their salaries, working environment and the policies which although are extrinsic (hygiene) factors but still occupy most of their projections and energy. The managing committee rarely interacts directly with the teachers and even don't bother to provide appraisal for good performances. There is no stimulation for psychological growth or enhancement of the quality of experience at the workplace. The needs of self-actualisation and esteem are rarely fulfilled or addressed to which results in frustration or dissatisfaction at work.



KEY WORD: motivation, need hierarchy, satisfaction, esteem, self-actualisation, commitment.

INTRODUCTION

The degree of perceptual difference among individuals is so vast that what constitutes motivating factors for a particular person is difficult to predict with any degree of precision. The motivational psychology is tremendously complex and through ages, researches on motivation have been one of the priority focuses of personnel managers. Motivation in the simplest terms has been defined by Weiner (1990) as an internal state that arouses people to actions, pushes them in a particular direction and keeps them engaged in certain activities. According to Pintrich, Marx and Boyle (1993), 'motivation increases an individual's energy and activity level with which he engages himself in any activity intensively.' Inspiring people to give their best effort for the organization is the most challenging job of managers as in the age of cut-throat competition, optimum performance of all employees are essential. The word 'motivation' has been used in two meanings namely work-satisfaction/commitment to work and specific need satisfaction of

2018

গ্রন্থাগার

বঙ্গীয় গ্রন্থাগার পরিষদের মুখপত্র

বর্ষ ৬৭ সংখ্যা ১২ সম্পাদক : অজয় কুমার ঘোষ

সহঃ সম্পাদক : জয়দীপ চন্দ

চৈত্র, ১৪২৪

সূচিপত্র

আরও একটি বছর (সম্পাদকীয়)

সুদেব মৈত্র

সবুজ গ্রন্থাগার : গ্রন্থাগার ভাবনার সজীব দিগন্ত

সুদীপ কুমার পাল

আধুনিক সমাজ ব্যবস্থায় তথ্য ও তথ্য বিজ্ঞানের সঙ্গে সম্পর্কযুক্ত বিষয়বস্তু

মলয় রায়

বরাক বঙ্গের গ্রন্থাগার

সুদ্রত বিশ্বাস

বিদ্যালয় শিক্ষার্থীর প্রথম পর্যায় হিসাবে বিদ্যালয় গ্রন্থাগারের ভূমিকা

বিপাশা বিশ্বাস ও সৌমিত্র দত্ত

জাতীয় ডিজিটাল গ্রন্থাগার : এক যুগান্তকারী পদক্ষেপ

পরিচয় কথ্য

গ্রন্থাগার সংবাদ

ফর্ম- IV (Vide Rule -8)

English Abstracts (Vol. 67, No. 10)

পৃষ্ঠা

৩

৪

৯

১১

১৪

১৬

২০

২১

২৫

PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

সবুজ গ্রন্থাগার : গ্রন্থাগার ভাবনার সজীব দিগন্ত

সুদেষ্ণা মৈত্র* গ্রন্থাগারিক, ফ্রবচাঁদ হালদার কলেজ

১. ধারণার সূত্রপাত

মানুষ ও পরিবেশের সম্পর্ক অবিচ্ছেদ্য ও আবহমান। বর্তমানে এই ভয়াবহ পরিবেশ দূষণের সঙ্কটকালে পৃথিবীর সর্বত্র 'সবুজ ভাবনা' (Green thought) র আশু প্রয়োজন অনুভূত হয়। সাধারণ দৈনন্দিন জীবন, জীবিকা, শিক্ষাক্ষেত্রে সর্বত্রই সবুজ ভাবনার আন্দোলনের ছাপ সুস্পষ্ট। তথ্যের ওপর অতিরিক্ত মাত্রায় নির্ভরশীলতা অতি সম্প্রতি এক নতুন ভাবনার দিগন্ত উন্মুক্ত করে দিয়েছে, যা সামগ্রিকভাবে সেই 'সবুজ' ভাবনারই ফলশ্রুতি। বর্তমান বিশ্বে ক্রমশঃ জায়গা করে নিচ্ছে 'সবুজ গ্রন্থাগার' বা 'Green Library' -র ধারণা।

গত শতকের নব্বইয়ের দশকে 'সবুজ গ্রন্থাগার আন্দোলন' বা Green Library Movement- এর সূত্রপাত। পরবর্তীকালে ২০০৩-০৪ সালে গ্রন্থাগার পেশাজীবীদের ভ্রগতে ধারণাটি ক্রমশঃ জনপ্রিয়তা অর্জন করে। সবুজ গ্রন্থাগারের গোড়াপত্তন হয় প্রধানত 'সবুজ নির্মাণ' বা 'Green Building' এর মাধ্যমে। সবুজ আন্দোলনের অংশরূপে গ্রন্থাগারের নানাবিধ কাজকর্ম ও পরিষেবার সবুজায়নের মধ্য দিয়ে 'সবুজ নির্মাণ' এর দিকে অগ্রসর হওয়ার সূচনা ঘটে।^৬

১.১ সবুজ গ্রন্থাগার : সংজ্ঞা

Online Dictironary of Library and Information Science - এ সবুজ গ্রন্থাগারের নিম্নলিখিত সংজ্ঞা উপলব্ধ:-
"A library designed to minimize negative impact on the natural environment and maximize indoor environmental quality by means of careful site selection, use of natural construction materials and biodegradable products, conservation of resources (water, energy, paper), and responsible waste disposal (recycling, etc.). In new construction and library renovation, sustainability is increasingly achieved through LEED (Leadership in Energy and Environmental Design) certification, a rating system developed by the U.S. Green Building Council (USGBC)."^৫

* 8697468620 (M)/s_moitra@hotmail.com

২. সবুজ নির্মাণ (Green Building) ও আন্তর্জাতিক মানক সংস্থা

যথার্থ সবুজ গ্রন্থাগার স্থাপনের পথে সর্বপ্রথম প্রয়োজন যথোপযুক্ত সামর্থ্য সম্পন্ন (Sustainable) সবুজ নির্মাণ। এই উদ্দেশ্যে নির্মিত ইमारতে নিম্নলিখিত সবুজ বৈশিষ্ট্যগুলি থাকা প্রয়োজন^২-

- ✓ স্থানীয় পরিবেশের ওপর নির্মাণের ন্যূনতম ঋণাত্মক প্রভাব
- ✓ জল ও বৈদ্যুতিক শক্তির ন্যূনতম ব্যবহার
- ✓ প্রথাগত শক্তি উৎসের পরিবর্তে অপ্রচলিত ও পুনঃব্যবহারযোগ্য বা পুনঃনবীকরণযোগ্য শক্তিসমূহের সর্বাধিক প্রয়োগ
- ✓ নির্মাণস্থলে সেই নির্দিষ্ট স্থানের সবুজ উদ্ভিদকে নান উপায়ে প্রাকৃতিকভাবে ইमारতের মধ্যে স্থাপন করা
- ✓ এক্ষেত্রে প্রধানতঃ খরা-সহ্যকারী উদ্ভিদ নির্বাচন
- ✓ গ্রন্থাগার ব্যবহারকারীদের স্বাস্থ্যের অনুকূল পরিপূর্ণ বয় চলাচলের ব্যবস্থা


২.১ আন্তর্জাতিক মানক সংস্থা

সবুজ নির্মাণের মানোন্নয়নের জন্য মার্কিন যুক্তরাষ্ট্রের অ-লাভজনক সংস্থা United States Green Building Council (USGBC) ২০০০ সালে Leadership in Energy and Environmental Design (LEED) নামক একটি মান্যতা সূচক তৈরি করে। ফলস্বরূপ এই সময়ের পরবর্তীকালে LEED বাণিজ্যিক ও প্রতিষ্ঠানিক ইमारত নির্মাণের ক্ষেত্রে আন্তর্জাতিক সূচকরূপে প্রসিদ্ধি লাভ করে। LEED-র মান্যতা অনুসারে ১০০ পয়েন্টের স্কেলে নিম্নলিখিত সাফল্যস্ক (score) -এর ওপর নির্ভর করে সবুজ নির্মাণের শংসাপত্র প্রদান করা হয়-

৪০-৪৯ পয়েন্ট সাটিফায়েড

৫০-৫৯ পয়েন্ট সিলভার

৬০-৭৯ পয়েন্ট গোল্ড


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



REVIEWS OF LITERATURE

ISSN: 2347-2723

IMPACT FACTOR : 3.3754(UIF)

VOLUME - 5 | ISSUE - 7 | FEBRUARY - 2018



REAL EXCHANGE RATE MOVEMENTS OF DEVELOPING COUNTRIES: A PANEL DATA ANALYSIS OF BALASSA-SAMUELSON THEOREM

Abhijit Pathak

Assistant Professor in Economics, Dhruba Chand Halder College, South Parganas.

ABSTRACT

In the theoretical literature, the factor that has received the most attention in explaining real exchange rate movements is the productivity bias mentioned in the Balassa-Samuelson theorem. The basic proposition of the Balassa-Samuelson (1964) theorem is that if one country's growth of productivity of the tradable sector relative to non-tradable sector is higher than that of the other, then the former will be experiencing a real exchange rate appreciation. This paper has attempted to have an empirical investigation of the Balassa-Samuelson theorem for a group of twelve developing countries for fifteen years. The panel data analysis has found a significant relationship between productivity growth differential and percentage change in real exchange rate movements but exactly in the opposite direction predicted by Balassa-Samuelson theorem.

"Foreign trade and currency exchange rates provide a vivid example of the rule - the theory is beautiful, but reality is baffling."

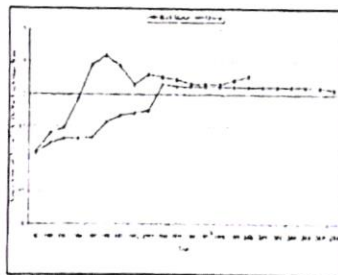
Milton Friedman on Free Trade

KEY WORD: Real Exchange Rate, Productivity Differential, Panel data.

JEL Classification: F31, F37, F42, C23

INTRODUCTION

Exchange rate economics is one of the most researched topics of Economics. With the development of world financial market and introduction of exogenous international capital flows international research in this field has increased phenomenally. However, not much success has been achieved in unravelling the determinants of exchange rate movements. The renowned economists of this field at times have expressed their difficulties in successfully explaining the movements in the exchange rates (Dornbush 1987, MacDonald and Taylor, 1992, Harvey 1996). This problem is even acute for developing countries. The empirical testing of the theoretical models came up with such unsound results that on many occasions the mainstream economists have readily admitted their disappointment (MacDonald and Taylor, 1992).



The major factor, which affects the real exchange rate, the factor that has received the most attention in theoretical literature, is the productivity bias as mentioned in the Balassa-Samuelson theorem. The basic proposition of the Balassa-Samuelson (1964) theorem is that if one country's growth of productivity of the tradable sector relative to non-tradable sector is higher than that of the other, then the former will be experiencing a real exchange rate appreciation. This is mainly a supply

Available online at www.lbp.world

24/02/2018
Dr. D. Banerjee, P.S. - Jayram
South 24 Parganas, Pin- 743372

[Signature]
PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Banerjee, P.S.- Jayram
South 24 Parganas, Pin- 743372



विश्वविद्यालय अनुदान आयोग
University Grants Commission
quality higher education for all

Home RTI Tenders Jobs Press Release
Contact Us



For UGC Officials

e-Office
NIC mail
RTI online
PG portal

UGC Approved List of Journals

You searched for **reviews of literature**

Total Journals : 1

Professional Councils
State Higher Education
Councils
MHRD
AICTE

Show 25

▼ entries

Search:

View	Sl.No.	Journal No	Title	Publisher	ISSN	Quicks Links
						Scholarships and Fellowships
						Web portal for
						Fellowship/Scholarship Legacy
						Cases
						e-SARTS
						e-Schemes
View	1	48385	Reviews of Literature	Ashok Yakkaldevi 258/34,Raviwar Peth, Solapur 413005 Maharashtra, India.Phone No.02172372010, e-mail: ayisrj@yahoo.in Website: www.isrj.org	23472723	

Showing 1 to 1 of 1 entries

Previous

1

Next

DEB
UGC NET Online
UGC Regulation
Telephone Directory

Contact us

University Grants Commission (UGC) Bahadur Shah Zafar Marg,

New Delhi - 110002.

011-23604446, 011-23604200

webmaster.ugc.help@gmail.com



<https://www.ugc.ac.in/journalist/subjectwisejournallist.aspx?tid=cmV2aWV3cyBvZiBsaXRlcmF0dXJl&did=Q3VycmVudCBUaXR5ZXN=>

[Signature]
PRINCIPAL

Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



DEMONETISATION IN INDIA AND ITS IMPACT ON NEPAL'S ECONOMY

Abhijit Pathak

Assistant Professor in Economics, Dhruba Chand Halder College,
South 24 Parganas, W.B.

ABSTRACT

The Government of India withdrew the legal tender status of Rs. 500 and Rs. 1000 denominations of banknotes issued by the Reserve Bank of India with effect from the midnight of November 8, 2016. The demonetisation in India has not only impacted India's economic conditions but also has impacted its neighboring country Nepal where Indian currency is in circulation in large amount and also accepted along with the Nepalese currency. Moreover, most of Nepal's trade is with India and through India. It is based on Indian currency. The remittances sent back to Nepal by Nepalese workers working in India are in Indian currency. In most cases, the families of these migrant Nepalese workers depend a lot on these remittances for their living. The Nepal Rastra Bank brought these issues to the notice of the Indian Government soon after the announcement of the demonetisation in India. Efforts of coordination with the Nepalese authorities were attempted at a later stage by the Indian Government to exchange demonetised Rs.500 and Rs.1000 denominated Indian currencies held by Nepalese people. The economic problems accentuated in Nepal as the demonetised Indian currencies were held not only by the people in the urban areas but also by people living in the rural areas of Nepal which were largely unbanked. Against this backdrop, this paper has attempted to find the impact of India's demonetisation measure on Nepal's economy both in the rural and urban areas. The preliminary examination reveals that the unilateral decision by the Government of India to demonetise Rs. 500 and Rs. 1000 denominated currency notes has negatively impacted the economy of Nepal to a large extent.



KEY WORD: Demonetisation, Currency Stability, Bilateral Trade, Informal Sector.

INTRODUCTION:

The use of a stable medium of exchange is pivotal for the existence of a market economy where the money accepted and used is fiat money and not backed by any commodity. Lenin once said that the best way to destroy the capitalist system was to debauch the currency because that will destroy the faith in business and asset holdings of the public (White and Schuler, 2009). Stability of a currency is at the core of a capitalist system and that is why many countries have adopted the dollar as their domestic currency and majority of European countries have joined Euro to have a stable medium of exchange even at the cost of their independent monetary and fiscal policy. There are examples of a large number of countries which historically accept the currency of other currencies for settling many of their regular economic transactions. There are even instances for some countries where people regularly travel to another country for their job, earn money in foreign currency and come back in the evening and can use that currency freely in their own country. This happens in small countries, or bordering states of two countries where currencies are freely exchangeable in their labour and goods market. The instability of one major currency in the region therefore has impact not only on its domestic economy but also on bordering countries.

Available online at www.lbp.world

1


PRINCIPALDhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



विश्वविद्यालय अनुदान आयोग
University Grants Commission
quality higher education for all

(<https://www.ugc.ac.in/>)

RTI (<https://www.ugc.ac.in/subpage/RTI-Act.aspx>)

Tenders (<https://www.ugc.ac.in/Tenders.aspx>)

Jobs (https://www.ugc.ac.in/ugc_jobs.aspx)

Press Release (https://www.ugc.ac.in/ugc_pressrelease.aspx)

Contact Us (<https://www.ugc.ac.in/contact.aspx>)



(<https://www.ugc.ac.in/hindi/>)



UGC Approved List of Journals

You searched for **review of research**

|| Home (journal_list.aspx) ||

Total Journals : 4

Show 25

▼ entries Search:

View	Sl.No.	Journal No	Title	Publisher	Journal No
View (ugc_admin_journal_report.aspx?eid=Nzg5Ng==)	1	7896	International Review of Research in Developmental Disabilities	Elsevier Academic Press Inc	22116095
View (ugc_admin_journal_report.aspx?eid=Nzg5OA==)	2	7898	International Review of Research in Open and Distance Learning	Athabasca University	14923831
View (ugc_admin_journal_report.aspx?eid=MTA2NTg=)	3	10658	Review of Research in Education	Sage Publications Inc	0091732X
View (ugc_admin_journal_report.aspx?eid=NDg1MTQ=)	4	48514	Review of Research Journal	Laxmi Book Publications, Solapur	2249894X

Showing 1 to 4 of 4 entries Previous 1 Next

PRINCIPAL

Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

<https://www.ugc.ac.in/journalist/subjectwisejournallist.aspx?tid=cmV2aWV3IG9mIHJlc2VhcmNo&&did=Q3VycmVudCBUaXRzZXM=>

2018

THEATRE INTERNATIONAL

UGC Approved Peer-Reviewed International Journal
UGC Serial No. - 49202

Vol. XI

Eds.

Amitava Roy
Bryan Reynolds
Sheila T. Cavanagh
Subir Dhar
Tapu Biswas



AVANTGARDE PRESS

ISSN NO : 2278-2036T1

THE SHAKESPEARE SOCIETY OF EASTERN INDIA

ISSN NO : 2278-2036T1

PRINCIPAL

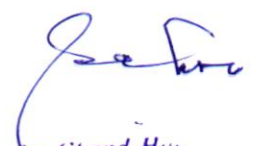
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Reading Girish Karnad's *The Dreams of Tipu Sultan* as a Postcolonial text (re)presenting, retrieving native history vis-a-vis documented colonial History

Tapashree Ghosh

Girish Karnad is one of the leading playwrights of postcolonial, post-Independence India. His plays are rooted in Indian mythology, folklore and history yet they are contemporary in appeal. His plays explore the relationship between history and myth making. Seen in the Indian context, such relationship is complex, dynamic and forever evolving. In *An Introduction to Post-Colonial Theatre* Chris Banfield notes that engagement with history and myth gives Karnad's plays an indefinable, Indian quality as "the very concept of Indian theatre is an abstraction, an impossible convergence of manifestly diverse practices and traditions that [are] collectively and conveniently gathered into a single concept" (160). A close and critical inspection of Karnad's oeuvre reveals his fascination for myths and legends and at the same time pin points his awareness of new technological changes and myriad challenges of living in a modern, globalised world. Hence, we have plays such as *Nagamandala*, *Hayavadhana*, *Bali*, *the Sacrifice*, *The Fire and the Rain* on one end of the spectrum while on the other end of the spectrum we have *A Heap of Broken Images*, *Boiled Beans on Toast*, *Wedding Album*. In texts such as *Tughlag*, *Tale-Danda* Karnad has re-presented pre-colonial history. In *The Dreams of Tipu Sultan* he deftly (re)presents colonial history.

Postcolonial interrogation, subversion, resistance and counter-discursive representation of documented colonial history as themes are very common in post-colonial literature. In *Postcolonial Literature: An Introduction* Pramod K. Nayar observes that history as a theme in postcolonial literature addresses several themes which can be grouped under two broad heads namely interrogating colonialism and retrieving history (37). These two categories are inter-related. In *The Dreams of Tipu Sultan* Karnad interrogates


Dhruva Chand Halder
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

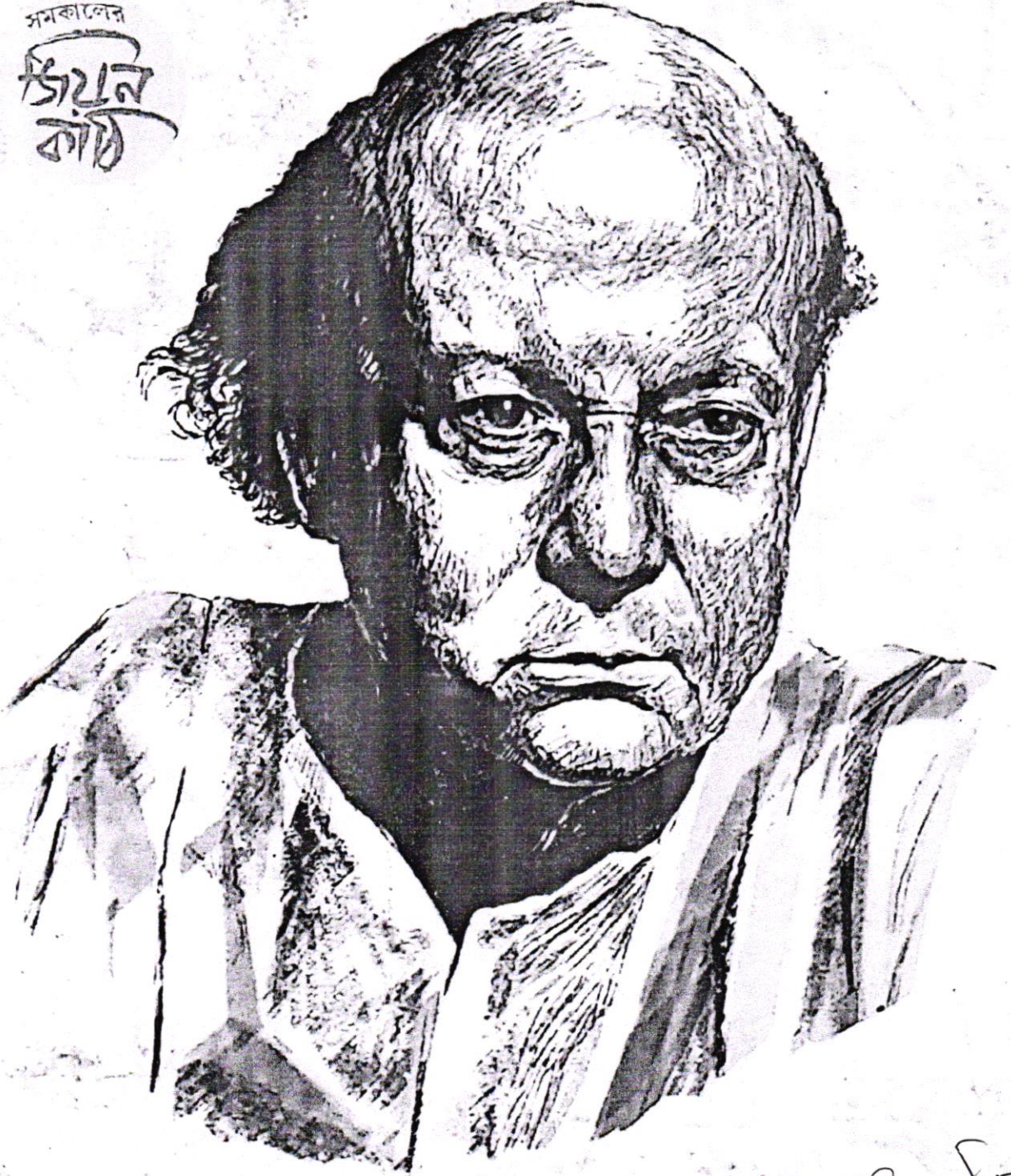
ISSN NO : 2278-2036TI

জানুয়ারি-জুন ২০১৮ (যুগ্ম সংখ্যা)

ISSN : 2249-4782
UGC Refereed Journal

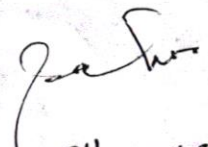
সৈয়দ মুজতবা আলী স্মরণ সংখ্যা

সমকালের
ডায়েরি
কাঁচ



সম্পাদক

নাজিবুল ইসলাম মণ্ডল


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

● সৈয়দ মুজতবা আলীৰ শ্রমকৰ্চা : বৈদক্ষ্য ও রসচর্চাৰ মুগপং পাঠ

জাৱিকল রহমান মতল

১৫১

● রবীন্দ্রনাথ ও মুজতবা আলী

গোপেশ পাল

১৬২

● অবিধাৰ্য্য : স্নেহ ও পাণৰাধাৰেৰ অভিনব কাহিনী

ড. হিজ্জতুল্লাহ নাঈৰ

১৬৮

● রমায়ণৰ আতোকে সৈয়দ মুজতবা আলী

হিমংগ দাস

১৮১

● রসবাহু মুজতবা ও সুকুমার সাহিত্য

শেখ রেজওয়ানুল ইসলাম

১৮৭

● বাংলা সাহিত্যে নির্মল হাস্যরস বহিঃ সৈয়দ মুজতবা আলী

নিয়তুন মতল

২১৬

● বিবাহ বহির্ভূত স্নেহ ও সৈয়দ মুজতবা আলীৰ ছোটগল্প

মোহাম্মদ হোসেন

২২০

● রমায়ণৰ আতোকে সৈয়দ মুজতবা আলীৰ বঙ্গভাৰতীৰ আদৰ্শৰ সত্তা

স্বাক্ষ নক্স

২২৫

পৰ্ব : গ (বাঁহা সম্মানিত হলেন)

● গোপা দত্তভৌমিক

২৩১

● ড. সুরেন্দ্রন মিত্র

২৩৪

● ড. আমিন খান

২৪১

● অধ্যাপক দীপক কুমার সায়

২৪৬

● বাঘের খাবা, বৈদ্য—কিছু দাবী (বিশেষ অভিবেদন)

নাজিবুল ইসলাম মতল

২৪৮

● একনজরে সৈয়দ মুজতবা আলী (জীবনপঞ্জি ও গ্রন্থপঞ্জি)

২৫৩

● বিজ্ঞাপন

২৫৩

পৰ্ব : ক

অবিশ্বাস্য : প্রেম ও পাপবোধের অভিনব কাহিনী

ড. রিজওয়ানা নাসিরা

সৈয়দ মুজতবা আলি যশস্বী হয়ে আছেন উম্মানের ভ্রমণকাহিনি, বুদ্ধিদীপ্ত রম্যরচনা ও নানা ধরনের প্রবন্ধ এবং অনেক ছোটগল্প লিখে। তাঁর ২৭টি বাংলা গ্রন্থের মধ্যে উপন্যাস মাত্র চারটি—অবিশ্বাস্য (১৯৫৪), শবনম (১৯৬০), শহর-ইয়ার (১৯৬৯) এবং তুলনা-হীনা (১৯৭২)। এছাড়া আছে একটি বিদেশি উপন্যাসের অনুবাদ। তাঁর উপন্যাসে সর্বত্র কবিত্বের ছাপ স্পষ্ট। তাঁর উপন্যাসে ফুটে উঠেছে নিবিড় বেদনার চিত্র এবং বহিরঙ্গ হালকা চাপল্যের সুব থাকলেও অন্তরঙ্গ অস্তরীনি হয়ে আছে কবি-আত্মার গভীর অগ্নী। তাঁর স্বভাবসুলভ ভাষার দ্রুত-লঘু গতি, মনের চকিত দৃষ্টি, আরবী-ফার্সী-তুর্কি উর্দু-ইংরেজি মিশ্রিত বাংলা ভাষা উপন্যাসে এনেছে বিশিষ্টতা। তাঁর 'শবনম' ও 'চার ইয়ারে' উপন্যাসে মুসলিম নায়িকার ব্যক্তিত্ব ফুটে উঠেছে। 'শবনম' উপন্যাসটি অবিনশ্বর প্রণয়-কামনার প্রতীক হয়ে উঠেছে এবং এর লিরিক-আবেদন প্রশংসার দাবি রাখে। 'শহর-ইয়ার' কলকাতার এক মুসলমান পরিবার নিয়ে লেখা। এটি মূলত নারীপ্রধান রচনা। তাঁর শেষ উপন্যাস 'তুলনা-হীনা' বাংলাদেশের মুক্তি সংগ্রামের পটভূমিতে রচিত। এখানে নায়ক-নায়িকার রবীন্দ্র-লালিত রোমান্টিক প্রেম প্রকাশ পেয়েছে। ব্যক্তিত্বে, কর্মনীয়াতায়, রবীন্দ্র-সংগীতের বাণীরাপের অনিবচনীয়তায় কাহিনির কমেডি-মেজাজটিও ফুটে উঠেছে।

'অবিশ্বাস্য' মুজতবা আলীর প্রথম উপন্যাস। এই উপন্যাসের কিছু চরিত্রের সঙ্গে লেখকের 'টুনিমেম' গল্পের কোনো কোনো চরিত্রের মিল বুঝে পাওয়া যায়। উপন্যাসটির ঘটনাস্থল বাংলা হলেও এক বিদেশি পরিবারের গল্প। এই উপন্যাসের মধ্যে আছে মনে সংহতি, ঘটনায় তীব্রতা ও নাটকীয়তা এবং ঘটনার সঙ্গে ব্যক্তিত্বের সংগত টানাপোড়েন। উপন্যাসিক ও-রেলির অসহায় অপরাধবোধ গুরুত্ব সহকারে প্রকাশ করেছেন। তার সুদীর্ঘ চিঠির স্বীকারোক্তিতে তার মানসিক কষ্ট ও হৃদয়-যন্ত্রণার বিভিন্ন দিক প্রকাশিত।

অবিশ্বাস্য : প্রেম ও পাপবোধের অভিনব কাহিনী

১৬৯

ও-রেলির স্ত্রী মেরলের স্বামীর প্রতি অকৃত্রিম শ্রদ্ধা ও ভালবাসা ছিলই; কিন্তু তার মধ্যেও ছিল সুস্থ-সবল যুবতীর স্বাভাবিক জৈব কামনা, বরং একটু বেশি কামনার তাড়না তাকে ভিতরে ভিতরে উন্মত্ত করে তুলেছিল। তাই সতীত্বের সংস্কার সে টিকিয়ে রাখতে পারেনি। বাটলার জয়সূর্যের সঙ্গে অবৈধভাবে মেলামেশা করেছে। জয়সূর্যও তার অমার্জিত রুক্ষতা, স্থূলতা ও বর্বরোচিত বিকর্ষণীয় ব্যক্তিত্ব নিয়েও এক অপ্রতিরোধ্য যৌন আমন্ত্রণে মেরলকে টেনেছে। নপুংসক ও-রেলির স্ত্রী গর্ভবতী হওয়ায় এবং পুত্রসন্তান জন্ম দেওয়ায় দুঃসহ তীব্র মানসিক যন্ত্রণায় ছটফট করতে থাকে ও-রেলি। শেষে ক্ষতবিক্ষত চিত্তে সে মেরল-জয়সূর্য ও শিশুসন্তান প্যাট্রিককে বিষ খাইয়ে খুন করে বাগানে লিচু গাছতলায় মাটি চাপা নিয়ে যন্ত্রণা লাঘব করার চেষ্টা করে। কিন্তু তাতেও তার মানসিক যন্ত্রণা কমেনি বরং বেড়েছে বেশি। তার পাপবোধ তাকে সর্বক্ষণ কুরে কুরে খেয়েছে। এরকম এক রোমহর্ষক চিত্তবিনারক কাহিনি নিয়ে লেখা 'অবিশ্বাস্য' উপন্যাস।

ইংরেজ শাসনকালে পরাধীন ভারতে লন্ডন থেকে মধুগঞ্জে আগত অ্যাসিস্ট্যান্ট সুপারিন্টেন্ডেন্ট অফ পুলিশ সুদর্শন ও সুঠামদেহী ডেভিড ও-রেলির জীবনের অবিশ্বাস্য করুণ কাহিনি ও অবিশ্বাস্য ভয়াবহ পরিণতি এই উপন্যাসের মূলকথা।

মধুগঞ্জ রেল স্টেশন থেকে কুড়ি মাইল দূরে জলের কল বা বিদ্যুৎহীন এক জায়গা। এখানে শাক-সজি, মাছ-মাংস, দুধ-ঘি, ডিম-মুরগি সবই খুব সস্তা। ওয়েলস মিশনারিদের কৃপায় এখানে উন্নতমানের একটা-দুটো হাইস্কুল ও হয়েছে। এখানে পড়াশুনাও খুব উন্নতমানের। সর্বোপরি এখানকার প্রাকৃতিক সৌন্দর্য সবাইকে আকর্ষণ করার মতো। তাই এখানে বদলি হওয়ার জন্য প্রত্যেক চাকুরীজীবী আশা পোষণ করতো। এই মধুগঞ্জে সামনে 'কাজলধারা' নদীর কাকচক্ষু কালো জল, নদী পেরিয়ে বিস্তীর্ণ সবুজ ধানক্ষেত, সবশেষে এক আকাশ-ছোয়া বিরাট নিরেট নীল পাথরের খাড়া পাহাড়। এই সৌন্দর্যময় ছোট্ট মহকুমা শহরটিকে দেখে ও-রেলি প্রথম দর্শনেই ভালোবেসে ফেলে।

ও-রেলি ইংরেজ নয়, আইরিশমান। ২১-২২ বছরের এই ও-রেলি ফর্সা, সুপুরুষ ও প্রিয়দর্শন। তার চুল খাঁটি বাঙালির মতো মিশকালো ও চোখ ঘন নীল। তার ফর্সা বর্ণ, কালো চুল ও নীল চোখ খুবই আকর্ষণীয়। তাকে দেখে যে-কোনো রমণী আকর্ষণ বোধ করে।

ও-রেলির ধানার পাশেই পাহারী স্কুল। এখানে পড়তে আসে প্রচুর পরিমাণে দো-আঁশলা ইয়োরেশিয়ান। যাদের বাবারা চা-বাগানের সাহেব আর মা চা বাগানের ভারতীয় কুলি-রমণী। সাহেবদের এমন কুকীর্তির কথা শুনে ও-রেলি প্রচণ্ড ক্ষিপ্ত

Principal
Chandrabati Halder College
100-11, Binnar Road, Dumur
Dumur, Dumur, Dumur

3.3.2 Number of research papers by teachers in the Journals notified on UGC website during the last five years (JULY 2017 - JUNE 2021)

S.No.	Title of paper	Name of the faculty	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal
1	Deshbhag, danga o bangladesher golpo'	Rizwana Nasira	Bengali	Samokaler jionkathi'	Jul-Dec, 2017	2249-4782	UGC Refereed, SL No: 40745
2	Abiswassya : Prem o papbodher ovinabo kahini'	Rizwana Nasira	Bengali	Samokaler jionkathi'	Jan-June, 2018	2249-4782	UGC Refereed, SL No: 40745
3	Fire dekha : Maya goalinir hat'	Rizwana Nasira	Bengali	Samokaler jionkathi, Sagardwiper katha	Jan-June, 2019	2249-4782	UGC Refereed, SL No: 40745

Principal
P.O.-D. Baranati, P.S.-Jharghat
South 24 Parganas, Pin-743372
Dhruva Chandra

ISSN 2277 - 5730
AN INTERNATIONAL MULTIDISCIPLINARY
QUARTERLY RESEARCH JOURNAL

AJANTA

Volume - VII

Issue - IV

October - December - 2018

English Part - XIV / XV

Peer Reviewed Refereed
and UGC Listed Journal

Journal No. 40776



IMPACT FACTOR / INDEXING
2018 - 5.505
www.sjifactor.com

❖ EDITOR ❖

Assit. Prof. Vinay Shankarrao Hatole
M.Sc (Math's), M.B.A. (Mkt), M.B.A (H.R),
M.Drama (Acting), M.Drama (Prod & Dirt), M.Ed.


❖ PUBLISHED BY ❖

Ajanta Prakashan
Aurangabad. (M.S.)

PRINCIPAL
Dhruva Chand Halder College
P.O. - D. Barasat, P.S. - Joy nagar
South 24 Parganas, PIN- 743372


❧ CONTENTS OF ENGLISH PART - XV ❧

Sr. No.	Name & Author Name	Page No.
1	Synthesis and Antibacterial Activity of a Mannich Base, 2-[1-(4-hydroxyphenyl)-1-(piperidin-1-yl)propyl] hydrazinecarboxamide and Its Cu (II) Complex Dr. M. B. Swami	1-6
2	Zero Truncated Count Models: An Application to the Women Fertility Count Data in Kalaburagi District Dr. Vijaykumar Kulkarni	7-16
3	Evaluation of Performance and Growth of MSME Sector in Terms of Number of Units, Employment and Investment in Fixed Assets Shri. Gautam Dilip Maske	17-21
4	The Role of 'A Jungli' in the Constituent Assembly: Jaipal Singh Munda Jitendra Ganesh Weekey	22-26
5	News Paper Clipping Service in Uma Mahavidyalaya Dr. Choure Anjali A.	27-30
6	Life Skill Education Amardeep P. Asolkar	31-35
7	A Nationwide Surveillance Study Looked at the Distribution of Microorganisms and Antibiotic Resistance in ICU-Bloodstream Infections during Hospitalisation Mr. Laxman Navnath Chavan	36-44
8	Philosophic Foundations of Physical Education Sadashiv G. Javheri Dr. Siddiqui Mohd Rafiq Ejaz	45-49
9	Teacher Educator: A Self Motivated Learner Pathan Ramiz Khan Ibrahim Khan	50-55
10	A Study of State-Wise Food Security in India Dr. Deepak P. Sable	56-61
11	Physics in Engineering Fields N. D. Korpe	62-63


 PRINCIPAL
 Dhruba Chand Halder College
 P.O.- D. Barasat, P.S.- Jaynagar
 South 24 Parganas, Pin- 743372

CONTENTS OF ENGLISH PART - XV

Sr. No.	Name & Author Name	Page No.
12	Loss of Human Values: Through the Lens of Arun Joshi's <i>The Foreigner</i> and <i>The Last Labyrinth</i> Bula Rani Howlader	64-68
13	A Brief Study of Agrarian Community in the Novels of Dr. Sadanand Deshmukh: An Emerging Marathi Author Shailesh Lachamareddy Jittawar	69-72


PRINCIPAL
Dhruba Chand Halder College
P.O. D. Barasat, P.S. - Jaynagar
South 24 Parganas, Pin- 743372

12. Loss of Human Values: Through the Lens of Arun Joshi's *The Foreigner* and *The Last Labyrinth*

Bula Rani Howlader

Assistant Professor, Dhruba Chand Halder College, Dakshin Barasat,
24 Parganas (South), West Bengal.


Abstract

In this materialistic, globalized world where humanism is eroding fast, problems like identity crisis, existentialism are arising fast with equal speed. Modern novels show that people caught in the flux of Indian ethos and western influences are so perplexed that they find themselves with no clear ambitions in mind. The social pressure, the tug of war between old and new beliefs and uncertain loyalties degrade their lives and injure their psyches, resulting in cynical attitudes towards life. In this paper, the researcher attempts a dip into the human soul with decaying human values to find out their real predicament. For that purpose the researcher has chosen two novels- *The Foreigner* (1968) and *The Last Labyrinth* (1981), by the very insightful writer Arun Joshi. This paper is an endeavor to assess how values serve as guiding principles in people's lives and how loss of values lead to isolation, hollowness and self-destruction. Joshi has beautifully demonstrated the struggle for human values- one's own love for native place, culture, identity.

Key words: human values, identity crisis, psyche, Indian ethos, western influences.

Introduction

Arun Joshi, a writer of rare sensitivity demonstrates a special pattern in his novels. His protagonists in his different novels manifest some common concerns with varying emphasis such as-alienation, corruption, city civilization, rootlessness, lack of spirituality, emotional turmoil etc. But their journey in search of values-self, identity, love, peace and harmony as an elusive but a desirable state of being is the most visible concern. Arun Joshi draws our special attention to our noble cultural heritage and perennial moral values through the protagonists' journey from


PRINCIPAL
Dhruba Chand Halder College
P.O. - D. Barasat, P.S. - Jaynagar
South 24 Parganas, Pin- 743372

International Journal of Research in Social Sciences

Vol. 8 Issue 2, February 2018,

ISSN: 2249-2496 Impact Factor: 7.081

Journal Homepage: <http://www.ijmra.us>, Email: editorijmie@gmail.com

Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at: Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A

SPECIALIZATION: A BOON OR CURSE FOR INCLUSIVE EDUCATION IN INDIA?

Bula Rani Howlader

Assistant Professor

Dhruba Chand Halder College, Dakshin Barasat,

24 Parganas (South), Pin: 743372, West Bengal

Abstract

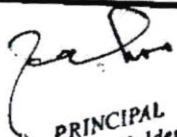
The research findings of different researchers and scholars in the area of Inclusive Education are the evidence of the fact that India still has a long way to go to provide high quality Inclusive Education for the children with disabilities. They have mentioned about numerous challenges and difficulties in the system of Inclusive education. One important issue that is often dealt with much emphasis is specialization. Since Inclusive Education refers to the inclusion of all kind of children, namely the gifted, physically and mentally disable with the normal children in the same education system, the term 'special' becomes very significant. It is very interesting that the approach of Inclusive education is to reject the use of 'special' schools or classrooms for educating students with 'special' educational needs. The noble motto is not to separate students with disabilities from students without disabilities. Too much specialization in the education system, such as schools for the deaf and dumb, schools for blind, special schools for the mentally retarded is now considered derogatory for the disable children by the educationists, scholars, social activists and others. But the rejection of special schools does not mean the rejection of special techniques and training. The researcher in this paper makes an attempt to study the diverse specializations both in the case of schools and techniques and trainings for teaching the students of special educational needs and also tries to analyze why specialization becomes a boon and sometimes a curse as well.

Key Words: *Inclusive Education, Specialization, India, Boon, Curse, Technique, Training*

Introduction:

The Canadian humourist Stephen Leacock in his essay 'Further Progress in Specialization' satirizes the tendency of narrow specialization of modern man. Though he chose the medical world for his humorous story to satirize the excessive tendency of specialization of modern man, the issue he deals with is applicable to the field of education also. In this paper the term 'specialization' is used in two senses. The first one is to mean the separate system of education for children with disabilities outside the mainstream education system. So, here specialization

989


PRINCIPAL
Dhruba Chand Halder College
P.O.-D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

International Journal of Research in Social Sciences
<http://www.ijmra.us>, Email: editorijmie@gmail.com

Volume 6, Issue 2 (XXI)
April - June 2019

ISSN 2394 - 7780



ज्ञान-विज्ञान विभूतये
UGC
University Grants Commission
Journal No. 83571

International Journal of Advance and Innovative Research

Indian Academicians and Researchers Association
www.iaraedu.com

Principal
PRINCIPAL
Nhruba Chand Halder
P.O.-D. Barasat, P.S. ...
24 ...

THE SURFACE AREA, ELEMENTAL AND PHOTO LUMINESCENCE STUDIES OF $\text{Sr}_2\text{P}_2\text{O}_7$ NANO PHOSPHOR 56-57

P. D. Solanki, Dr. B. V. Jogiya and Dr. M. J. Joshi

MULHOLLAND DRIVE' (2001): A CASE STUDY OF THE PRIMACY OF DREAMS OVER REALITY 61-62

Sunayan Bhattacharjee

IDENTIFICATION OF ORGANIZATIONAL FACTORS INFLUENCING JOB SATISFACTION OF THE FACULTY MEMBERS: A STUDY WITH RESPECT TO THE PRIVATE UNIVERSITIES OF EASTERN INDIA 66-67

Amrita Majumdar and Dr. Shibnath Banerjee

IMPACT OF ONLINE ADVERTISING ON CONSUMERS BUYING BEHAVIOUR: A STUDY WITH REFERENCE TO KARKALA TALUK 71-72

Poornima V Bhat, Saumya Ratnakar Shetty and Dr. Umesh Maiya

A STUDY OF AWARENESS AND ACCEPTABILITY OF EMERGING TRENDS IN THE INDIAN INSURANCE SECTOR 73-74

Shamita Salunkhe and Kunal Wade

A STUDY ON CONSUMER ACCEPTABILITY OF AUTOMOBILE SALES THROUGH E-COMMERCE PLATFORMS 83-84

CS Swapnil Shenvi and Mangesh Prabhu

PERCEPTION TOWARDS DIGITAL PAYMENT: A STUDY WITH REFERENCE TO UDUPI TALUKA 87-88

Kotian Roopashree Ashok, Sriraksha, Dr. Umesh Maiya

SIGNIFICANCE OF SHATKRIYAKAL IN THE MANAGEMENT OF VRANASHOPHA 92-93

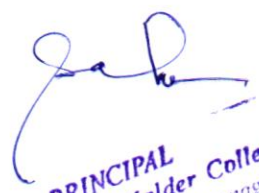
Dr. Anil Kumar and Dr. Ashish Sharma

A CONCEPTUAL FRAME WORK ON IMPACT OF INFORMATION TECHNOLOGY ON HUMAN RESOURCE PRACTICE 96-100

Habeeb Jahan

AN ANALYSIS OF THE STRESSORS FOR STUDENTS 101-102

Dr. KUSHAL DE


PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jangra
South 24 Parganas, Pin- 743372

AN ANALYSIS OF THE STRESSORS FOR STUDENTS

Dr. KUSHAL DE

Assistant Professor, Dhruba Chand Halder College, South 24 Parganas

ABSTRACT

The students in schools today live in a state of perpetual insecurity due to conflicting expectations of parents, teachers, friends, family and society. Stress therefore can be said to be a normal part of student's life as they have to address to conflicting demands from various stakeholders. The present study tries to analyze the various stressors that are present in the students' lives by conducting a cross-sectional survey research on 910 students studying in Class X in Government Aided Secondary Schools representing the population and chosen from schools located in Kolkata and its adjoining districts namely Howrah, South 24 Parganas and North 24 Parganas. The stressors identified were Academic Stress due to performance anxiety, Academic Stress due to lack of self confidence, Academic Stress due to parental expectations, Academic Stress due to peer pressure, Academic Stress due to social/ personal relationships, Academic Stress due to financial condition and Academic Stress due to school environment. It is found from the study that all the identified category of stressors have impact on the student's Academic Performance as the score obtained for all categories are above 2.4. The scores range from 2.42 to 2.72 which clearly show that all stressors cumulatively impact a student's life.

Keywords: Academic Stress, students, performance, anxiety, peer pressure.

INTRODUCTION

It has to be accepted that in modern times, students in schools live in a state of perpetual insecurity due to conflicting expectations of parents, teachers, friends, family and society. The students have to perform in every sphere of life and satisfy various stakeholders in their lives to a considerable extent. This pressure of competition usually burn down the students emotionally, mentally and psychologically; and this calls for enhanced emotional support for the student when the challenges get tougher. The breakdown of the joint family system on the one hand and the homemaker-breadwinner model within the family on the other has deep ramifications on the emotional lives of the students. The nuclear family of present times results in lesser avenues for emotional gratification of the young especially when conflicting expectations are showered on them, leaving them helpless and confused. Lesser number of siblings at home and absence of mothers from homes due to employment and other compulsions has compounded the problems on young students and they have to address the challenges levied on them from various quarters of the society by themselves with their limited resources and means. Stress therefore can be said to be a normal part of student's life as they have to address to conflicting demands from various stakeholders.

Stress among the students is an important topic of discussion among the academic circle and the society. Many scholars have investigated the issue from various angles and carried out extensive research but it can easily be observed that high stress among students remain; and thus it can be concluded that the topic need more focus (Busari, 2014). The sources of stress are known as stressors and the students face various stressors which relate to all aspects of their lives including stress from the family, stress from friends, stress from society, stress from the school, stress due to interpersonal conflicts, financial stress, Academic Stress etc. The sources of stress in modern days are endless and keep on increasing with changing times but the means available to combat or cope with these stressors are few and they are also limited for a student. The helplessness and depression among the students can be comprehended by watching the news in print media and the internet whereby it is reported that cases of substance abuse, gender abuse, criminal activities, stress related ill health and suicides are rising among young students every year.

Students are stressed due to interplay of various factors in their lives but close review of various stressors would reveal that out of all stressors faced by them, Academic Stress emerges as the primary cause of concern (Rangaswami, 1995). Academic Stress encompasses all aspects in students' life which has the potential to jeopardize their Academic Performance and include all aspects relating to day to day activities of students like too many assignments, competition with other students, failures, lack of money, poor relationship with other students or teachers, problems at home with family (Busari, 2014). Chronic stress among students is usually associated with absence from classes, nervousness, tension, ill health, unstable behaviour and a decline in Academic Performance. Thus, stress is usually deemed to be detrimental for any individual's performance and assumed by commoners to reduce one's performance capacity. This has also been proved empirically through a number of researches (Clark and Rieker, 1986). Stress is usually condemned as harmful for organisms but it has to be understood that the adverse effects of stress are felt when the level of stress is excessive. Research has



Identified Hybrid tRNA Structure Genes in Archaeal Genome

Uttam Roy Mandal ^{1*}, Shib Sankar Das ², Brajadulal Chattopadhyay ³, Satyabrata Sahoo ⁴

¹ Department of Mathematics, Raidighi College, Raidighi, W.B., India

² Department of Mathematics, Uluberia College, Uluberia, Howrah, W.B., India

³ Department of Physics, Jadavpur University, Kolkata, W.B., India

⁴ Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, W.B., India

* Corresponding author: Uttam Roy Mandal, Department of Mathematics, Raidighi College, Raidighi, W.B., India. Tel: +91-8335822418; E-mail: urmandal77@raidighicollege.in

Abstract

Background: In Archaea, previous studies have revealed the presence of multiple intron-containing tRNAs and split tRNAs. The full unexpurgated analysis of archaeal tRNA genes remains a challenging task in the field of bioinformatics, because of the presence of various types of hidden tRNA genes in archaea. Here, we suggested a computational method that searched for widely separated genes encoding tRNA halves to generate suppressive variants of missing tRNAs.

Objectives: The exploration of tRNA genes from a genome with varying hypotheses, among all three domain of life (eukaryotes, bacteria and archaea), has been rapidly identified in different ways in the field of bioinformatics. Like eukaryotic tRNA genes, it has been established that two separated regions of the coding sequence of a tRNA gene are essential and sufficient for promotion of transcription. Our objective is to find out the two essential regions in the genome sequence which comprises two halves of the hidden tRNAs.

Material and Methods: Considering the existence of split tRNA genes widely separated throughout the genome, we developed our tRNA search algorithm to predict such separated tRNA genes by searching both a conserved terminal 5'- and 3'-motif of tRNA in agreement with the split hypothesis on the basis of cloverleaf prediction and precise insilico determination of bulge-helix-bulge secondary structure at the splice sites.

Results: By a comprehensive search for all kinds of missing tRNA genes, we have constructed hybrid tRNA genes containing one essential region from tDNA (XYZ) and the other from tDNA (ABC), both from same species in the archaea. We have also found, this type of hybrid tRNA genes are identified in the different species of the archaea (XYZ: ASN, ARG and MET; ABC: ASP, SER, ARG and PRO). These hybrid split tRNA share a common structural motif called bulge-helix-bulge (BHB) a more relaxed bulge-helix loop (BHL), at the leader exon boundary and suggested to be evolutionary interrelated.

Conclusions: Analysis of the complete genome sequences of *Metallosphaera sedula* DSM 5348, *Desulfurococcus kamchatkensis* 1221n and *Ignicoccus hospitalis* KIN4/1 in archaea by our algorithm revealed that a number of hybrid tRNAs are constructed from different tDNAs. Asymmetric combination of 5' and 3' tRNA halves may have generated the diversity of tRNA molecules. Our study of hybrid tRNA genes will provide a new molecular basis for upcoming tRNA studies.


Keywords: Helix (Snails); Open Reading Frames; RNA, Transfer

1. Background

Extremophiles, especially those in Archaea, have a myriad of adaptations that keep their cellular proteins stable and active under the extreme conditions in which they live. Rather than having one basic set of adaptations that works for all environments, Archaea have evolved separate protein features that are customized for each

environment (1, 2). The evolution of tRNA in archaea is an exciting topic widely discussed in the field of molecular evolution (3-7). tRNA is a short-coding RNA charged with a corresponding amino acid and delivered into ribosome during protein biosynthesis. In archaca, there have been four types of tRNA genes identified to date: intron-less,

Copyright © 2019 The Author(s); Published by National Institute of Genetic Engineering and Biotechnology. This is an open access article, distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits others to copy and redistribute material just in noncommercial usages, provided the original work is properly cited.


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

①

2019



Codon usage pattern and predicted gene expression in *Arabidopsis thaliana* [☆]

Satyabrata Sahoo ^{a,*}, Shib Sankar Das ^b, Ria Rakshit ^c

^a Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., India

^b Department of Mathematics, Uluberia College, Uluberia, Howrah, W.B., India

^c Department of Botany, Barasat College, South 24 Parganas, W.B., India



ARTICLE INFO

Keywords:

Codon usage bias
Gene expression
GC content
Arabidopsis thaliana
PHE genes
CAI

ABSTRACT

The extensive research for predicting highly expressed genes in plant genome sequences has been going on for decades. The codon usage pattern of genes in *Arabidopsis thaliana* genome is a classical topic for plant biologists for its significance in the understanding of molecular plant biology. Here we have used a gene expression profiling methodology based on the score of modified relative codon bias (MRCBS) to elucidate expression pattern of genes in *Arabidopsis thaliana*. MRCBS relies exclusively on sequence features for identifying the highly expressed genes. In this study, a critical analysis of predicted highly expressed (PHE) genes in *Arabidopsis thaliana* has been performed using MRCBS as a numerical estimator of gene expression level. Consistent with previous other results, our study indicates that codon composition plays an important role in the regulation of gene expression. We found a systematic strong correlation between MRCBS and CAI (codon adaptation index) or other expression-measures. Additionally, MRCBS correlates well with experimental gene expression data. Our study highlights the relationship between gene expression and compositional signature in relation to codon usage bias and sets the ground for the further investigation of the evolution of the protein-coding genes in the plant genome.

1. Introduction

Arabidopsis thaliana has proven to be a model experimental organism for essentially developing plant biology at the molecular level. Undoubtedly, any useful insight in understanding the expression of functional proteins of *Arabidopsis thaliana* will contribute to the development of plant research as well as in the field of modern biotechnology. It is well known that the synthesis of every protein molecule is directed by the arrangement of genetic codes in a genomic DNA sequence. The genetic code uses sixty-one codons to encode 20 amino acids and three codons to terminate translation in the process of protein synthesis. The degeneracy of the genetic code suggests that there must be many alternative nucleotide sequences to encode the same protein. The codon usage pattern varies significantly between different organisms, and also between genes which are expressed at different

levels in the same organism. A number of hypotheses prevail regarding the factors which influence the codon usage pattern. Attempts have been made to explain the codon distributions in the protein-coding genes as well as the changes in codon usages among different synonymous codons in each organism (Sharp et al., 1988; Brandis and Hughes, 2016; Sharp and Li, 1987; Ikemura, 1981; Hockenberry et al., 2014; Lee et al., 2010). It is well discussed in the literature that organisms might be subjected to codon biases of different origins. In fact, it is rather difficult to decide the most common dominant codon bias of a genome. Some researchers have speculated that codon bias that tends to reduce the diversity of isoacceptor tRNAs may reduce the metabolic load (Gustafsson and Govindarajan, 2004; Akashi, 1994; Ikemura, 1985). Many other analyses have also revealed that there are many other factors like nucleotide compositional constraint, codon anticodon interaction, amino acid conservation etc. which may

Abbreviations: MRCBS, Score of Modified relative codon bias; PHE, Predicted Highly Expressed; CAI, Codon adaptation index; RCB, Relative codon bias; SAGE, Serial Analysis of Gene Expression; RCA, Relative Codon Adaptation; RCBS, Relative Codon Bias Strength; MBP, Megabase pair; TAIR, The Arabidopsis Information Resources; MT, Mitochondrion; CP, Chloroplast Pltd CP; RP, Ribosomal protein; MADS, Minichromosome maintenance1, Agamous, Deficiens and Serum response factor; GEO, Gene Expression Omnibus; RMA, Relative Molecular Abundance.

[☆] This article was originally published in Gene: X. Gene: X is now discontinued and the article is republished here for the reader's convenience. For citation purposes, please use the publication details of this article: Gene, 721S.

* Corresponding author.

E-mail address: dr_s_sahoo@yahoo.com (S. Sahoo).


<https://doi.org/10.1016/j.gene.2019.100012>

Received 30 October 2018; Revised 30 January 2019; Accepted 21 February 2019

Available online 6 March 2019

0378-1119/© 2019 The Authors. Published by Elsevier B.V.

This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Joybaga
South 24 Parganas, Pin- 7433

SRELS Journal of Information Management

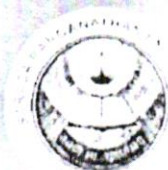
Incorporating Library Science with a slant to Documentation and Information Studies (1988-1999), founded by Dr. S.R. Ranganathan

Archive issues available at: www.srels.org and
<http://www.informaticsjournals.com/index.php/srels>

Volume 56, Issue 1, February 2012



INFORMATICS
A PUBLISHED JOURNAL



PRINCIPAL

Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



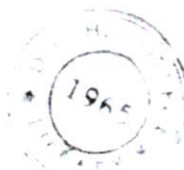
SRELS JOURNAL OF INFORMATION MANAGEMENT

Volume 56, Issue 1, February 2019

CONTENTS

Articles

- Balanced Development using Ontology-Based Tantra Framework** 1-12
Shreekanth M. Prabhu, K. N. Balasubramanya Murthy and Subramanyam Natarajan
- Citation False Practices in the Library and Information Science Theses: A Case Study of Shodhganga ETD Database** 13-17
H. Rajendra Babu
- Assessment of YouTube Videos on H Index** 18-25
Mohit Garg
- Assessment of Digital Reference Tools/Websites Related to Tourism Information using Webometrics and Qualitative Analysis** 26-31
Shiv Shakti Ghosh and Sunil Kumar Chatterjee
- Public Libraries and Community Information Services: An Experience in Blocks of Sundarban Region, South 24 Parganas** 32-35
Arindam Sarkar
- Local History Collection in Public Libraries of South 24 Parganas: A Study** 36-44
Sudeshna Moitra and Chaitali Dutta
- Dspace or Fedora: Which is a Better Solution?** 45-50
Shazia Khan
- Information Literacy among Ophthalmologists: A Study** 51-60
R. Govindarajan and S. Dhanavandan



PRINCIPAL

Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Local History Collection in Public Libraries of South 24 Parganas: A Study

Sudeshna Moitra^{1*} and Chaitali Dutta²

¹Dhruva Chand Halder College, Dakshin Barasat, South 24 Parganas - 743372, West Bengal, India
dch15library@gmail.com

²Department of Library and Information Science, Jadavpur University, Jadavpur - 700032, Kolkata, West Bengal, India

Abstract

Public library has the social responsibility to meet the local community requirements for knowledge, information, education, culture, recreation, and so on. The responsibility includes preserving local history materials of a particular locality. This paper reflects the present scenario of collection, preservation, dissemination, use pattern of local history materials and user demand for such collection in the Government-sponsored public libraries (District Library, Sub-divisional Libraries and Town Libraries) in South 24 Parganas district in West Bengal. Every library was visited personally to interview the Librarian/In-charge and data were collected through a structured questionnaire. Library users were also interviewed through a separately structured questionnaire by applying random sampling method. Collected data were analysed to find out the present situation and issues related to building local history collection and rendering effective associated services. Findings reflect the major hindrances responsible for the state of sources of local history in the South 24 Parganas. Some recommendations have been made.

Keywords: Local History, Local History Collection, Public Libraries, South 24 Parganas, West Bengal

1. Introduction

According to the UNESCO Public Library Manifesto (1994), public library is 'People's University' (IFLA/UNESCO, 1994). The Manifesto defines 'Public Library' as "...the local gateway to knowledge, provides a basic condition for lifelong learning, independent decision-making and cultural development of the individual and social groups". Public library is solely responsible for providing information and knowledge to all the sections of the society irrespective of age, sex, caste, religion, race, nationality, language and social status. Public library provides support for formal and informal education, personal development, leisure and recreation (Kumar, 1992). Geographical and historical information of the locality, contribution of the sons of soil, invaluable documents relating to the development of the locality; local cultural possessions are all components of local history. There lies the responsibility of the public library which has a crucial role in cultural development of the

society as well as to let the new generation know about their ancestry (Gorman, 2007).

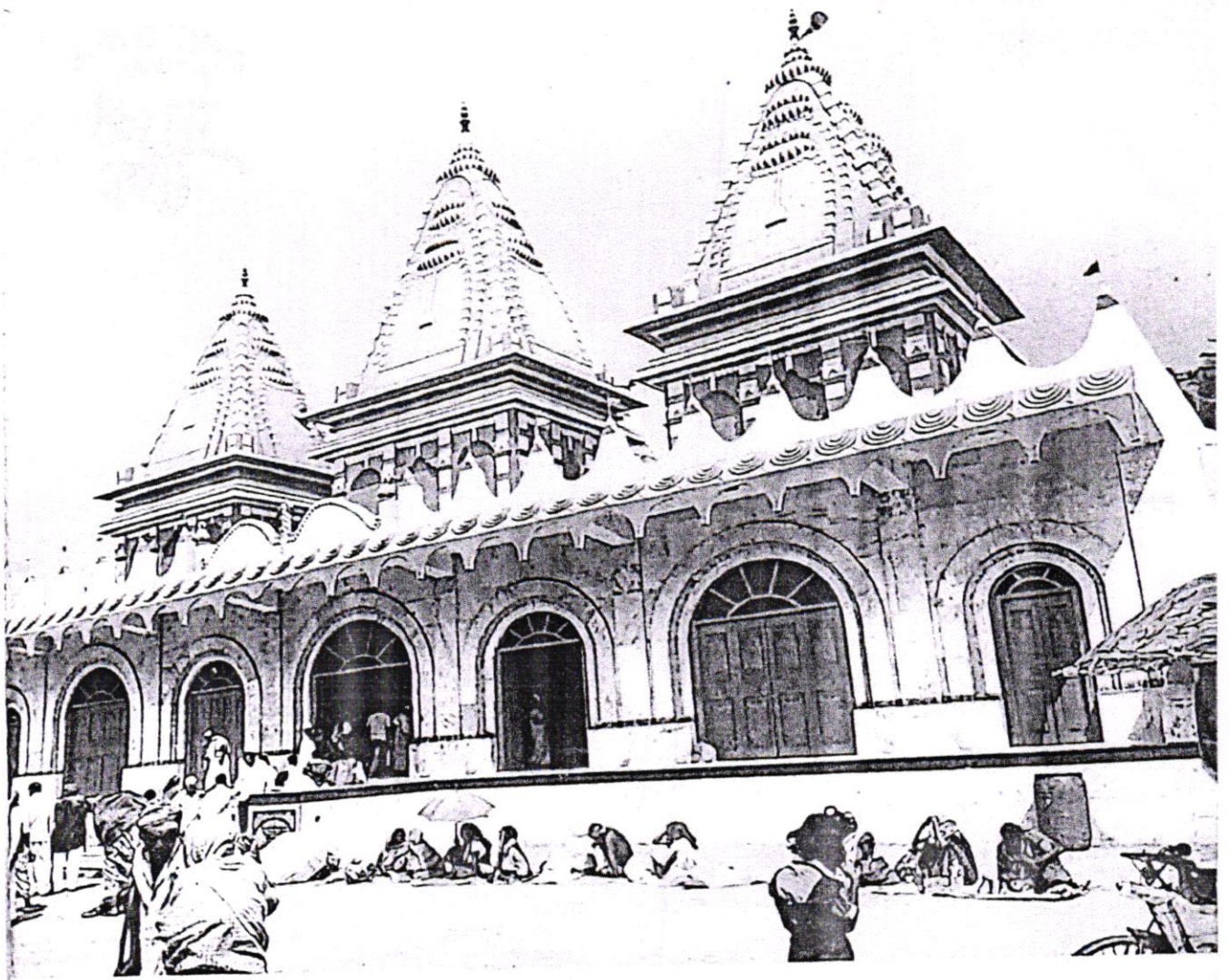
1.1 South 24 Parganas: An Overview

The name 24 Parganas derived from the number of *mahals* or parts or *Parganas*, which were given to the East India Company as *Zemindari* or land-lordship, by the then *Nawab* of Bengal, Mir Jafar in 1757 just right after the fall of *Nawab* Siraj-ud-Daulah in the battle of *Plassey*. The *zamindari* was started from the south of the then Calcutta and ended at the southern border of the then *Hatiagarh pargana* or *Kulpi* (Mandal, 1999). In 1793, the entire *Sunderbans* area was incorporated in 24 Parganas by the act of Permanent Settlement of Lord Cornwallis (O'Malley, 1914). In 1905, administration of *Sunderbans* was permanently included in the administration of 24 Parganas. Lastly in 1986, mainly to ease the administration, 24 Parganas was bifurcated into North 24 Parganas and South 24 Parganas (Choudhuri, 2001). The largest

*Author for correspondence

PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



সাগরদ্বীপের কথা



PRINCIPAL
Dhruva Chand Halder College
Borasat, P.S.- Jaynagar
Pin- 743372

সম্পাদক : নাজিবুল ইসলাম মণ্ডল

রামকৃষ্ণ মিশন আশ্রম মনসাবীপ : ইতিহাস ও ইতিবৃত্ত ডা. শ্যামলী চৌধুরী	৪৩৫
আশ্রম ও বিদ্যালয়ের সংক্ষিপ্ত ইতিবৃত্ত জগন্নাথ মাইতি	৪৪৪
ফিরে দেখা : পঁচাত্তর বছরের ঘটনাপঞ্জি জগন্নাথ মাইতি ও প্রভাত কুমার গোল	৪৫৪
টেগর সোসাইটি ফর রুর্যাল ডেভেলপমেন্ট Sagar Mangal	৪৭৪
পর্ব ছ	
সাবোদিকের চোখে ও শিরোনামের খবর	
পূণ্যভূমির মিলনক্ষেত্র সাগরমেলা গৌতম মণ্ডল	৪৮৩
দাওয়াতে ইশক নরম ওড়ের পাটালি সাকিল আহমেদ	৪৯২
সাগরবীপের 'রত্ননগর দেবেশ্র বিদ্যাপীঠ'-এর জ্ঞানের আলো জ্বলছে নাজিবুল ইসলাম মণ্ডল	৪৯৮
'সুন্দরবন জনকল্যাণ সংঘ বিদ্যানিকেতন'-এর প্রধান শিক্ষক পেলেন 'জাতীয় শিক্ষক' সম্মাননা নাজিবুল ইসলাম মণ্ডল	৫০১
সাগরবীপের এক অনন্য গরিমা 'খান সাহেব আবাদ হাই স্কুল' নাজিবুল ইসলাম মণ্ডল	৫০৫
সুন্দরবনের সাগর ত্রকের 'লক্ষ্মণ পরবেশ হাই স্কুল' নাজিবুল ইসলাম মণ্ডল	৫০৮
পর্ব জ	
আলোকপাত	
ফিরে দেখা : বিভূ নাগেশ্বরের দিন বদলের পালা ড. মহঃ কুতুবুদ্দিন মোম্বা	৫১৩
ফিরে দেখা : মায়ামোয়ালিনীর হাট ড. রিজওয়ানা নাসির	৫২২

গ্রন্থ : আমার ফুটবল খেলার দিনগুলি
লিলুফা ইয়াসমিন

৫৩০

পর্ব ষ	
সাগররত্ন	
স্বামী ইষ্টানন্দ (রাখাল মহারাজ)	৫৩৯
হরিপদ বাওলি	৫৪০
বিজয়কৃষ্ণ চক্রবর্তী	৫৪৩
ব্যোমকেশ মাইতি	৫৪৬
প্রভঞ্জন মণ্ডল (১৯৩৯-২০১৫)	৫৪৮
ধীরেন্দ্রনাথ দাস	৫৫১
অনিল কুমার খাঁড়া	৫৫৩
হরিপদ সেন	৫৫৬
ত্রিলোকেশ মিশ্র (১৯৩১ - ২০০০)	৫৫৮
ডাঃ গোবর্ধন ডিংগাল (১৯২৪ - ১৯৯৯)	৫৬০
বিপিনবিহারী বেরা	৫৬২
সেকেন্দার আলি খান	৫৬৪
জগন্নাথ মাইতি	৫৬৫
আব্দুল জব্বার শাহ যাহার নাম জহর শাহ	৫৬৯
অপূর্ব রঞ্জন গিরি	৫৭১
ভাগ্যধর বারিক	৫৭৫
অধিনীকুমার গায়ের	৫৭৮
বঙ্কিমচন্দ্র হাজরা	৫৭৯
মিলন পড়ুয়া	৫৮২
মানিকচন্দ্র পাহাড়ী	৫৮৪
প্রাণকৃষ্ণ মণ্ডল	৫৮৬
বিজ্ঞানী অমলেশ মিশ্র	৫৮৭
মধুসূদন ঘোড়াই	৫৮৯
ড. সুদীপ্ত ত্রিপাঠী	৫৯০
জয়নাল আবেদিন	৫৯১
ড. অনুপ কুমার দাস	৫৯৩
জয়দেব দাস	৫৯৭
শান্তনু গায়ের	৬০১

PRINCIPAL
Siksha Chand Halder College
P.O. A. Barasat P.S. Javangur
South 24 Parganas, Pin-743311

ফিরে দেখা : মায়াগোয়ালিনীর হাট

ড. রিজওয়ানা নাসিরা

বিভূ নাগেশ্বরের অনেকটা আত্মজীবনীমূলক বাস্তবধর্মী উপন্যাস 'মায়া গোয়ালিনীর ঘাট' (আশ্বিন ১৪০৩, অক্টোবর ১৯৯৬)। উপন্যাসটির প্রকাশক—তপন বারিক (২৫ বি, এম.এন.সেন লেন, কলকাতা-৭০০ ০৪০)। পরিবেশক—সাহিত্যতীর্থ (৮/১ বি, শ্যামাচরণ দে স্ট্রীট, কলকাতা-৭০০ ০৭৩)। উপন্যাসটির কাহিনী নাতির কাছে দাদুর স্মৃতিচারণমূলক কথনে প্রকাশিত হয়েছে। ছয় পরিচ্ছেদের এই ক্ষুদ্রকায় উপন্যাসের শেষ পরিচ্ছেদে তা স্পষ্ট—

“আমি বললাম—দাদু তোমার এ কথাগুলি সব কী সত্যি, না কিছু কিছু বানানো?
দাদু বলল—দেখ বিভূ, আমার বইস এখন আশি। আমানকের টাকা বেলার কথা কইলে তো তোনে বিশ্বাস করবুনি। যে গল্পটা করলি এটা মোটে গল্প নারে। একেবারে সত্যি।

... ..

সীতাপতি আমার দাদু। আমার মার বাবা। ছুটি ছাটাতে আমি মাঝে মাঝে দাদুর বাড়িতে বেড়াতে যাই। তখন দাদু তাঁর জীবনের বিচিত্র সব অভিজ্ঞতার গল্প করেন।...”
(পৃ. ৬৩-৬৪)

সুতরাং পর্যালোচনায় বলা যায় এখানে ‘আমি’ বিভূ নাগেশ্বর এবং তাঁর দাদু সীতাপতি এখন দাদু। তাঁর বয়স এখন আশি। তিনি মাত্র ১৭-১৮ বছর বয়সে সুন্দরবনস্থিত সাগরদীপে তাঁর দাদু নন্দ ডাক্তারের কাছে গিয়েছিলেন বেড়াতে। সেখানে মায়া গোয়ালিনীর ঘাটে কমলা গৌড়াগীর জীবনের যে করুণ ইতিবৃত্ত শুনেছিলেন তা স্মৃতিচারণ করেছেন তাঁর নাতি বিভূ নাগেশ্বরের কাছে। অর্থাৎ সীতাপতি প্রায় ৬২-৬৩ বছর পরে তাঁর নাতির কাছে স্মৃতিচারণ করেছেন। কমলা দিদার কাছে সীতাপতি যখন এই করুণ জীবনকাহিনী শুনেছিলেন তখন কমলার বয়স প্রায় ৫০ বছর। আর তার দু’বছর পরে কমলা সম্যাস রোগে অর্থাৎ স্ট্রোক

ফিরে

ফিরে দেখা : মায়াগোয়ালিনীর হাট

৫২৩

মারা গিয়েছিল। অর্থাৎ কমলার পার্থিব জীবনায়ু প্রায় বাহ্যিক বছর। কিন্তু রূপ-সৌন্দর্যে সে ৩০-৩২ বছরের যুবতীর মতোই সুন্দরী-লাবণ্যময়ী ছিল। সীতাপতি তখন বিশ্বাসই করতে পারেনি কমলার বয়স পঞ্চাশ হতে পারে। এমনই তার রূপ-লাবণ্যের প্রার্থব্য। এই কমলারই করুণ কাহিনী উপন্যাসটির মূল বর্ণিতব্য বিষয়।

‘মায়া গোয়ালিনীর ঘাট’ উপন্যাসটির প্রথম পাঁচটি পরিচ্ছেদ পর্যালোচনা করলে কাহিনী-বিন্যাস এইরকমই—

১) প্রথম পরিচ্ছেদ :

উপন্যাসের কাহিনীর সূচনা। সীতাপতি বৃন্দাবনকানার সঙ্গে চলেছে মায়া গোয়ালিনীর ঘাটে। মহিতিদের লাট, সান-বাঁধানো মিষ্টি পুকুর, ঘাটে তিনটি পান-বিড়ি দোকানের মধ্যে কমলার দোকানের জমজমাট ভিড়, গদাঙ্গারের পরিচর, জমিদার রুদ্রাবাবুর কাছারি ইত্যাদি। সীতাপতির বড় কৌতূহল সাগরদীপের এই মায়াগোয়ালিনীর ঘাটের গোড়ার কথা জানার—

“এই এ জেগিয়াটার নাম কেনি হইল? এ লাটটা প্রথম কে ধরতল? প্রথম প্রথম এ জায়গাগুলো কীরকম থাকিল? ওঁসব আর কী?” (পৃ. ১৭)

২) দ্বিতীয় পরিচ্ছেদ :

সাগরদীপে প্রথম মানুষের বসতি স্থাপনের কথা। জমির লিজ নিয়ে লাট হওয়ার কথা, চাষবাসের কথা। মেদিনীপুর থেকেই অধিকাংশ মানুষের আগমনের কথা এখানে লেখক বলেছেন—

“সুন্দরবনকে যারা কাটাই করে বাসযোগ্য করে তুলেছে, তারা মূলত মেদিনীপুরের দরিদ্র চাষী আর সাঁওতালরা। লাট লিজ নিয়েছে মেদিনীপুরের জোতদার জমিদাররাই বেশিরভাগ। জল-জঙ্গল লোনা-কাদা এসবের সাথে মিশেছে বাঘ কুমীর আর বিষধর সাপের সাথে লড়াই।...” (পৃ. ১৯)

এই পরিচ্ছেদে আছে বাল-বিধবাদের জীবনের করুণ কাহিনী। মেদিনীপুরের যে সমস্ত বাল-বিধবাদের যৌবনে আর বিয়ে হতো না তাদেরকে কোনো কোনো যুবা চাষী নিয়ে পালিয়ে এসে এই সাগরদীপের লাটে চলে আসতো। কোনো কোনো ক্ষেত্রে তাদের বিয়ে করে নতুন করে সংসার পাততো, আবার কোনো কোনো ক্ষেত্রে তাদেরকে রক্ষিতা বা রাঁড় করে রাখতো। লেখক বলেছেন—

“...শরীরী চাহিদা মেটাতে, মনের খোরাক জোগাতে বাল-বিধবাদের নিয়ে

PRINCIPAL
Dhruba Chandra Halder College
P.O.- D. Barasat, P.S.- Jayrampur
South 24 Parganas. Pin- 743375

3.3.2 Number of research papers by teachers in the Journals notified on UGC website during the last five years (JULY 2017 - JUNE 2021)

S.No.	Title of paper	Name of the faculty	Department of the teacher	Name of journal	Year of publication	ISSN number	Link to the recognition in UGC enlistment of the Journal
1	Deshbhag, danga o bangladesher golpo'	Rizwana Nasira	Bengali	Samokaler jionkathi'	Jul-Dec, 2017	2249-4782	UGC Refereed, SL. No: 40745
2	Abiswassya : Prem o papbodher ovinabo kahini'	Rizwana Nasira	Bengali	Samokaler jionkathi'	Jan-June, 2018	2249-4782	UGC Refereed, SL. No: 40745
3	Fire dekha : Maya goalinir hat'	Rizwana Nasira	Bengali	Samokaler jionkathi, Sagardwiper katha	Jan-June, 2019	2249-4782	UGC Refereed, SL. No: 40745

Principal
P.O. D. Baran, P.S. Jhansi
South 24 Parganas, Pin-743332



ELSEVIER

Contents lists available at ScienceDirect

Advanced Powder Technology

journal homepage: www.elsevier.com/locate/aptAdvanced
Powder
Technology

Original Research Paper

Structural transformation induced enhanced multiferroicity in Al^{3+} and Ti^{4+} co-doped LaFeO_3

A. Mitra, A. Shaw, P.K. Chakrabarti *

Solid State Research Laboratory, Department of Physics, Burdwan University, Burdwan 713104, India

ARTICLE INFO

Article history:

Received 16 October 2019

Received in revised form 4 April 2020

Accepted 9 April 2020

Available online xxxx

Keywords:

X-ray diffraction

Magnetic properties

Dielectric and ferroelectric properties

Magnetoelectric response

Density functional theory

ABSTRACT

In order to enhance the magnetoelectric property of LaFeO_3 , we have considered co-substitution of Al^{3+} and Ti^{4+} in La^{3+} and Fe^{3+} sites. Rietveld refinement of the observed XRD patterns confirms that the pristine (LaFeO_3 , LFO) crystallizes in orthorhombic $Pbnm$ (centrosymmetric) space group whereas the doped samples ($\text{La}_{0.9}\text{Al}_{0.1}\text{Fe}_{0.9}\text{Ti}_{0.1}\text{O}_3$, LAFTO) crystallizes in orthorhombic $Pna2_1$ (non-centrosymmetric) space group due to co-doping of Al^{3+} - Ti^{4+} in LFO. Analysis of magnetic data confirms the antiferromagnetic phase of LFO and LAFTO possess ferrimagnetic spin structure with enhanced magnetization. Besides this ferroelectric polarization at room temperature is also improved in the co-doped sample of LAFTO ($P_{\text{max}} = 0.25 \mu\text{C}/\text{cm}^2$). Spontaneous polarization is predicted from first principle calculation for LAFTO to be $\sim 12.31 \mu\text{C}/\text{cm}^2$. The dielectric loss factor of LAFTO reduces significantly and the dielectric strength is also enhanced compared to that of LFO. Experimental results are in agreement with these findings extracted from ab initio calculations using density functional theory. The present doped sample LAFTO has improved magnetic, dielectric, ferroelectric properties and magnetoelectric coupling compared to that of LFO, would have the high potential for applications in multiferroic devices.

© 2020 Published by Elsevier B.V. on behalf of The Society of Powder Technology Japan. All rights reserved.

1. Introduction

In recent times, multiferroics have been the subject of detailed investigations for their applications in electronic devices [1–5]. In this direction research on magnetoelectric multiferroics is increasing very rapidly as they are useful for applications in magnetic field sensors, multistate memories, energy harvesters, and microwave filters etc. [6–10]. However, the existence of coupled magnetoelectric orderings in single phase material at room temperature is very rare which restricts the materials from practical use in multiferroic devices. The mutual exclusiveness behind the presence of coupled magnetic and ferroelectric orderings in a multiferroic material has been overcome in BiFeO_3 , GaFeO_3 , AlFeO_3 and LaFeO_3 (LFO) [11–16]. Among different multiferroics, LFO has attracted much attention as it behaves as an antiferromagnetic Mott type insulator with high Neel temperature ($T_N \sim 740 \text{ K}$) [17]. In LFO, each Fe^{3+} is surrounded by six anti-parallel Fe^{3+} nearest neighbors and the antiferromagnetic superexchange interaction between two Fe^{3+} ions via oxygen anion, where Fe–O–Fe bond angle is close to 180° , is responsible for the presence of magnetic ordering in LFO [16]. LFO also

exhibits weak room temperature (RT) ferroelectric property which arises due to the presence of lattice distortion generated by 3d electrons of the transition metal ion [16]. Besides these, there are some stumbling blocks of LFO for applications in devices like low values of magnetization, electric polarization and magnetoelectric coupling. The presence of high leakage current is also a barrier for its applications, which arises due to the formation of oxygen vacancies in the perovskite structure. The vacancy developed due to the instability of Fe^{4+} ions which are generated from the oxidation of Fe^{3+} ions in LFO as reported earlier by Mizusaki et al [18]. To overcome these limitations, doping of different transition metal ions viz., Ti, Zn, Cu [19–23] etc. and rare earth ions like Sm, Gd [24,25], etc. in the La site or Fe site of LFO are reported. However, the simultaneous enhancement of magnetization and the ferroelectric polarization was not achieved in the above cases. To improve the multifunctional property of LFO, co-substitution of Al^{3+} and Ti^{4+} is chosen. The ionic diameter of Al^{3+} ($\sim 0.39 \text{ \AA}$) is very small compared to that of La^{3+} ($\sim 1.03 \text{ \AA}$) and as a result the Al^{3+} ions would try to occupy the lattice site of FeO_6 octahedron by replacing a small fraction of Fe^{3+} ions in La site. These uncompensated spins of Fe^{3+} ions in La site may enhance the magnetization of LAFTO [26]. The other dopant Ti^{4+} is selected for partial substitution of Fe^{3+} as it may decrease the conductivity i.e., increase the

* Corresponding author.

E-mail address: pabitra_c@hotmail.com (P.K. Chakrabarti).<https://doi.org/10.1016/j.apt.2020.04.013>

0921-8831/© 2020 Published by Elsevier B.V. on behalf of The Society of Powder Technology Japan. All rights reserved.

Please cite this article as: A. Mitra, A. Shaw and P. K. Chakrabarti, Structural transformation induced enhanced multiferroicity in Al^{3+} and Ti^{4+} co-doped LaFeO_3 . Advanced Powder Technology. <https://doi.org/10.1016/j.apt.2020.04.013>

Principal
Dhruba Chand Haldar College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



The power of the Web of Science® on your mobile device, wherever inspiration strikes

Dismiss

Learn More

Already have a manuscript?

Use our Manuscript Matcher to find the best relevant journals!

Find a Match

Refine Your Search Results

0921-8831

Search

Sort By: Title (A-Z)

Search Results

Found 1 results (Page 1)

Share These Results

Filters

Clear All

Web of Science Coverage

Open Access

Category

Country / Region

Language

Frequency

Journal Citation Reports

Exact Match Found

ADVANCED POWDER TECHNOLOGY

Publisher: ELSEVIER , RADARWEG 29, AMSTERDAM, Netherlands, 1043 NX

ISSN / eISSN: 0921-8831 / 1568-5527

Web of Science Core Collection: Science Citation Index Expanded

Additional Web of Science Indexes: Current Contents Engineering, Computing & Technology | Essential Science Indicators

Share This Journal

View profile page

* Requires free login.

Items per page: 10

1 - 1 of 1

Editorial Disclaimer: As an independent organization, Clarivate does not become involved in and is not responsible for the editorial management of any journal or the business practices of any publisher. Publishers are accountable for their journal performance and compliance with ethical publishing standards. The views and opinions expressed in any journal are those of the author(s) and do not necessarily reflect the views or opinions of Clarivate. Clarivate remains neutral in relation to territorial disputes, and allows journals, publishers, institutes and authors to specify their address and affiliation details including territory.

Criteria for selection of newly submitted titles and re-evaluation of existing titles in the Web of Science are determined by the Web of Science Editors in their sole discretion. If a publisher's editorial policy or business practices negatively impact the quality of a journal, or its role in the surrounding literature of the subject, the Web of Science Editors may decline to include the journal in any Clarivate product or service. The Web of Science Editors, in their sole discretion, may remove titles from coverage at any point if the titles fail to maintain our standard of quality, do not comply with ethical standards, or otherwise do not

<https://mjl.clarivate.com/search-results>

1/2

Principal
Dhruva Chand Halder
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas. Pin- 743372



ScienceDirect

Advanced Powder Technology

Supports open access

7.5

CiteScore

4.969

Impact Factor

[Submit your article](#)[Guide for authors](#)[Menu](#)[Q Search in this journal](#)Latest
issue**Volume 34, Issue 3***In progress • March 2023*

About the journal

International Journal of Science and Technology of Powder and Particulate Materials

The aim of Advanced Powder Technology is to meet the demand for an international journal that integrates all aspects of science and technology research on powder and particulate materials. The journal fulfills this purpose by publishing original research papers, rapid communications, reviews, and

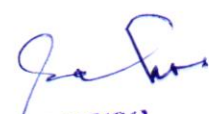
[View full aims & scope](#)**7.8 weeks**

Review Time

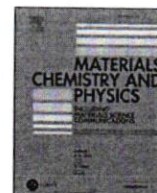
2.1 weeks

Publication Time

20%[View all insights](#)


Principal
Dhruba Chand Halder College
P.O. D. Barua, P.S. Jajnagar
South 24 Parganas, Pin-743122

[FEEDBACK](#)



Microstructure, dielectric, ferroelectric and magnetoelectric coupling of a novel multiferroic of $[(\text{GdMnO}_3)_{0.7}(\text{CoFe}_2\text{O}_4)_{0.3}]_{0.5}[\text{TiO}_2]_{0.5}$ nanocomposite

A. Mitra, A. Shaw, P.K. Chakrabarti *

Solid State Research Laboratory, Department of Physics, Burdwan University, Burdwan, 713104, India

HIGHLIGHTS

- $[(\text{GdMnO}_3)_{0.7}(\text{CoFe}_2\text{O}_4)_{0.3}]_{0.5}[\text{TiO}_2]_{0.5}$ exhibits room temperature multiferroicity.
- Presence of TiO_2 matrix helps to introduce RT ferroelectric polarization.
- Dielectric behaviour of the nanocomposite is drastically improved.
- Magnetoelectric coupling of the nanocomposite is observed at RT.

ARTICLE INFO

Keywords:

XRD
HRTEM
Dielectrics
Ferroelectrics
Magnetoelectric coupling

ABSTRACT

A new multiferroic is derived from GdMnO_3 (GMO), CoFe_2O_4 (CFO) and TiO_2 in the nanocomposite phase. Here the good dielectric properties of GMO and TiO_2 including the multiferroicity of GMO below ~ 13 K along with the magnetic ordering of CFO are exploited to develop the desired nanocomposite system. The nanocomposite of $[(\text{GdMnO}_3)_{0.7}(\text{CoFe}_2\text{O}_4)_{0.3}]_{0.5}[\text{TiO}_2]_{0.5}$ (GMO-CFO@TO) was obtained from chemical preparation route. Detailed investigations of structural and morphology are carried out by analyzing the X-ray diffractograms and pictures recorded during high resolution transmission electron microscopy. Dielectric behavior like dielectric strength, loss tangent etc. of the nanocomposite system are drastically improved compared to each component. The amalgamation of three phases destroys the center of inversion symmetry, which is not applicable in case of an individual component. The improved dielectric behavior, introduction of magnetic ordering by CFO, the lack of center of inversion symmetry together with the high strain in the lattice helps to achieve the nanocomposite multiferroic at room temperature.

1. Introduction

In magnetoelectric multiferroics ferromagnetism and ferroelectricity are present in a single phase, and the possibility of spin-phonon and spin-polar couplings in these systems offer the opportunity to design a range of unconventional devices, such as multiple-state memory elements and electric-field controlled magnetic sensors [1–5]. The type-II multiferroics are the subject of intense research for the past few years as in these materials the ferroelectricity is caused by an exotic magnetic order rather than by a non-centrosymmetric crystal structure. However, their ultimate uses depend upon the nature and strength of the magnetoelectric coupling around room temperature (RT). From the viewpoint of material constituents, the magnetoelectric multiferroics are divided

into two categories: single-phase and composite system. It has been observed that the single phase compound possess very low Curie temperature and the intrinsic magnetoelectric coupling amplitude is relatively low at RT which restrict them from the practical applications [6, 7]. Since none of the existing single phase multiferroics offers robust ferromagnetic and ferroelectric ordering at RT, multiferroics combining ferromagnetic and ferroelectric phases together are becoming a great alternative as there is flexibility in material design [8]. In multiferroic composites neither of the phases retains magnetoelectric coupling, however, the cross-interaction between the multiple phases can produce notable magnetoelectric effect [8]. The magnetoelectric effect in composite materials is recognized as a product tensor property was proposed by van Suchtelen [9]. Many bulk multiferroic composites exhibit

* Corresponding author.

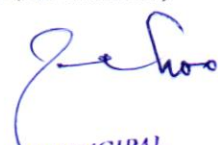
E-mail addresses: ayanphysics90@gmail.com (A. Mitra), anirban.shaw@gmail.com (A. Shaw), pabitra_c@hotmail.com (P.K. Chakrabarti).

<https://doi.org/10.1016/j.matchemphys.2019.122242>

Received 27 March 2019; Received in revised form 24 September 2019; Accepted 29 September 2019

Available online 30 September 2019

0254-0584/© 2019 Elsevier B.V. All rights reserved.


PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



NEW

The power of the Web of Science™ on your
mobile device. When and wherever you need it.

Dismiss

Learn More

Already have a
manuscript?

Use our Manuscript Matcher to find
the best relevant journals!

Find a Match

Refine Your Search Results

0254-0584

Search

Sort By: Title (A-Z)

Search Results

Found 1 results (Page 1)

[Share These Results](#)

Filters

[Clear All](#)

Web of Science Coverage

Open Access

Category

Country / Region

Language

Frequency

Journal Citation Reports

Exact Match Found

MATERIALS CHEMISTRY AND PHYSICS

Publisher: ELSEVIER SCIENCE SA , PO BOX 564, LAUSANNE, SWITZERLAND, 1001

ISSN / eISSN: 0254-0584 / 1879-3312

Web of Science Core Collection: Science Citation Index Expanded

Additional Web of Science Indexes: Current Contents Engineering, Computing & Technology | Current Contents Physical, Chemical & Earth Sciences | Essential Science Indicators

[Share This Journal](#)
[View profile page](#)

* Requires free login.

Items per page: 10 1 - 1 of 1

Editorial Disclaimer: As an independent organization, Clarivate does not become involved in and is not responsible for the editorial management of any journal or the business practices of any publisher. Publishers are accountable for their journal performance and compliance with ethical publishing standards. The views and opinions expressed in any journal are those of the author(s) and do not necessarily reflect the views or opinions of Clarivate. Clarivate remains neutral in relation to territorial disputes, and allows journals, publishers, institutes and authors to specify their address and affiliation details including territory.

Criteria for selection of newly submitted titles and re-evaluation of existing titles in the Web of Science are determined by the Web of Science Editors in their sole discretion. If a publisher's editorial policy or business practices negatively impact the quality of a journal, or its role in the surrounding literature of the subject, the Web of Science Editors may decline to include the journal in any Clarivate product or service. The Web of Science Editors, in their sole discretion, may remove titles from coverage at any point if the titles fail to maintain our standard of quality, do not comply with ethical standards, or otherwise do not

<https://mjl.clarivate.com/search-results>

1/2

PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



ScienceDirect

Materials Chemistry and Physics

Supports open access

7

CiteScore

4.778

Impact Factor

[Submit your article](#)[Guide for authors](#)[Menu](#)[Q Search in this journal](#)Latest
issue**Volume 298***In progress • 1 April 2023*


About the journal


Including Materials Science Communications

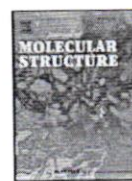
An international, interdisciplinary journal on science, characterisation and processing of advanced materials –
The International Journal of the Materials Research Society-Taiwan (MRS-T)

Materials Chemistry and Physics is devoted to short communications, full-length research papers and feature articles on interrelationships among structure, properties, processing and performance of **materials**. The Editors welcome manuscripts on all subjects of **metallurgy, engineering and functional ...**

[View full aims & scope](#)[➤ Become an MRS-T member](#)


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin 743372

FEEDBACK 



Structural elucidation of Levofloxacin and Ciprofloxacin using density functional theory and Raman spectroscopy with inexpensive lab-built setup

Rajeev K. Sinha^{a,*}, Partha Biswas^b

^a Department of Atomic and Molecular Physics, Manipal Academy of Higher Education, Manipal 576104, Karnataka, India

^b Department of Chemistry, Dhruba Chand Halder College, University of Calcutta, Dakshin Barasat, South 24 Parganas 743372, West Bengal, India

ARTICLE INFO

Article history:

Received 11 June 2020

Revised 18 July 2020

Accepted 20 July 2020

Available online 20 July 2020

Keywords:

Levofloxacin

Ciprofloxacin

Raman spectroscopy

Density functional theory

ABSTRACT

In the present work, we have investigated the structures of fluoroquinolones Levofloxacin and Ciprofloxacin using Raman spectroscopy and density functional theory calculations. The Raman spectra of Levofloxacin and Ciprofloxacin were recorded with lab-built inexpensive Raman spectroscopy setup that uses 638 nm laser diode. Raman spectra in the fingerprint spectral region ($900\text{--}1800\text{ cm}^{-1}$) were investigated for both the molecules. The density functional theory (DFT) utilizing B3LYP functional with 6-31+G(d,p) basis set was used to investigate the minimum energy structures of two molecules along with the calculation of Raman spectrum. Molecular complexes of Levofloxacin and Ciprofloxacin with one and two water molecules were also studied to see the effect of H-bonding on Raman spectra. It was found that the conformation and orientation of piperazine ring along with the orientation of hydroxyl group plays a vital role in determination of the minimum energy structure. The calculated Raman spectra of bare molecules and their complexes with water molecules were compared to the experimental Raman spectra. The calculated Raman spectrum of minimum energy structure was found to be in good agreement with the experimental spectrum. Further it was observed that the experimental Raman spectrum is better explained when H-bonding is considered, which could be due to the water molecule or the dimer formation of the molecules under investigation.

© 2020 Elsevier B.V. All rights reserved.

1. Introduction

Determination of correct minimum energy structure of a biomolecule is of immense importance and useful for the study of various intermolecular interactions in molecular complexes. Fluoroquinolone is well known class of molecule consists of several drug molecules. Levofloxacin and Ciprofloxacin (Scheme 1) are two such molecules belonging to the family of Fluoroquinolone. Levofloxacin is widely used for the treatment of pneumonia, urinary tract infections, acute pyelonephritis, skin and tissue infections [1] whereas Ciprofloxacin is used for treatment of respiratory, abdominal, and urogenital infections caused from various pathogens [2,3]. In recent past, few spectroscopic investigations both experimental and theoretical in nature have been carried out on these two molecules. Wang et al. have recorded the Raman and Fourier-transform infrared (FTIR) spectra of these two molecules and assigned the observed bands to various vibrational modes [4]. Later,

Gunasekaran et al. performed the density functional theory (DFT) calculations along with FTIR spectroscopy [5] of Levofloxacin. These authors provided the structure of Levofloxacin along with vibrational analysis. Followed by these studies Hidi et al. also performed the spectroscopic characterization of Levofloxacin and performed the Surface Enhanced Raman Scattering (SERS) detection of Levofloxacin [6]. In line with the SERS studies, Filgueiras et al. also performed SERS of Levofloxacin on silver nanoparticles [7]. Liu et al. has detected Levofloxacin lactate in blood using Raman spectroscopy [8] whereas Hidi et al. utilized LoC-SERS technique to monitor Levofloxacin in urine sample [9]. Madalossi et al. also performed the SERS studies on Levofloxacin utilizing silver nanoparticles [10]. Very recently Bindesri et al. studied Levofloxacin on fabric using electrochemical-SERS (EC-SERS) technique [11] and Yan et al. performed fiber enhanced Raman sensing of Levofloxacin using photonic crystal fiber [12]. Wolf et al. performed fiber enhanced detection of Ciprofloxacin [13]. Although these works on Levofloxacin and Ciprofloxacin have been carried out, the correspondence between minimum energy molecular structure of these two molecules and their Raman spectra was not very clear.

* Corresponding author.

E-mail address: rajeev.sinha@manipal.edu (R.K. Sinha).

<https://doi.org/10.1016/j.molstruc.2020.128946>
0022-2860/© 2020 Elsevier B.V. All rights reserved.

[Signature]
PRINCIPAL
Dhruba Chand Halder
P.O.-D. Barasat,
Dist-24 Pgs. (S) cm-743372



Master Journal List

Search Journals

Match Manuscript

Downloads

Help Center

Login

Create Free Account



The power of the Web of Science™ on your mobile device, wherever inspiration strikes.

Dismiss

Learn More

Already have a manuscript?

Use our Manuscript Matcher to find the best relevant journals!

Find a Match

Refine Your Search Results

Journal of molecular structure

Search

Sort By:

Relevancy

Search Results

Found 947 results (Page 1)

Share These Results

Filters

Clear All

Web of Science Coverage

Open Access

Category

Exact Match Found

JOURNAL OF MOLECULAR STRUCTURE

Publisher: ELSEVIER, RADARWEG 29, AMSTERDAM, Netherlands, 1043 NX

ISSN: 0022-2860 / 1872-8014

Web of Science Core Collection: Science Citation Index Expanded

Additional Web of Science Indexes: Current Contents Physical, Chemical & Earth Sciences | Essential Science Indicators

PARSHA
Internet access


PRINCIPAL
Dhruba Chand Halder College
P.O.-D. Barasat, P.S.-Jeynagar
Dist-24 Pgs. (S) Pin-743372

Middle Flight

SSM JOURNAL OF ENGLISH LITERATURE AND CULTURE
UGC CARE-LISTED NATIONAL LEVEL PEER REVIEWED JOURNAL

November 2020 VOL. 9 No. 1

(ISSN 2319-7684)

SPECIAL VOLUME ON
Health, Environment and Humanity in Literature



DEPARTMENT OF ENGLISH

S. S. MAHAVIDYALAYA

KESHPUR, PASCHIM MEDINIPUR

PIN: 721150, WEST BENGAL, INDIA

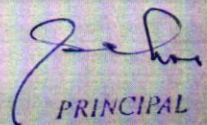
Principal
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Pandemic Pandemonium and the Importance of Being Ecological: 'Eco-concerns' in the Poetry of Robin S Ngangom	342
Masoom Islam	
Hayao Miyazaki's 'nature-writing' in the form of 'collective storytelling'	354
Riti Agarwala	
Contextualizing the Post-Human Environmental Aesthetics in <i>Jejuri</i>	362
Nabanita Roy	

Alternative Visions

Alternative Worlds: Ecocritical Tendencies in Select Bengali Speculative Fiction	372
Stella Chitralkha Biswas	
Re-empowering the Non-human: Magical Realism and the Non-human Voice in Richard Flanagan's <i>Death of a River Guide</i>	381
Lhutu Keyho	
Raising Environmental Awareness through Children's Literature—an analytical study with special reference to the works of Debendranath Acharjee	390
Sanjib Kumar Goswami	
Greening Children's Fiction: A Study of Bijal Vachharajani's <i>A Cloud Called Bhura: Climate Champions to the Rescue</i>	401
Damayanti Das	
Fighting 'the Green War': Mapping the Environmental Tropes in Susan Cooper's <i>Green Boy</i>	410
Sukdeb Kuila	
Escape or Critique?: Reworking Urban/ Nature Binary into Postcolonial Pastoral in Phukan's <i>The Collector's Wife</i>	418
Shreyashi Mukherjee	
A Reading of Calvino's <i>Cosmicomics</i> with Special Reference to 'Dinosaurs' from Eco-Critical Perspectives	427
Chaitali Maitra	
Narrativising Healthy Coexistence and Humane Values: A Study of Kipling's Scientific Romance "007"	433
Beetoshok Singha	
Contemporary Relevance of Rabindranath Tagore's Environmental Vision: An Overview	441
Tapashree Ghosh	
Exploring Nature in Asif Currimbhoy's <i>This Alien...Native Land</i>	450
Syed Foyez Ahmed	
Contributor List	461


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Contemporary Relevance of Rabindranath Tagore's Environmental Vision: An Overview

Tapashree Ghosh

Abstract ■ The present year has already made its mark in the history of human civilization as a year of crisis and apocalypse owing to the global pandemic. In the State of West Bengal, the super cyclone Amphan further added to the miseries of the people. Together, these twin crises shook the foundations of health and environmental in the state. In case of any disaster of colossal scale, the process of healing is as significant as the exposure to the cataclysm. Rabindranath Tagore was an avid environmentalist and a visionary of global repute. This paper re-reads Tagore's literature from the standpoint of environmental thinking. The critical lens used to view Tagore's works of literature is an Indian lens. Western theoretical paradigm cannot be used to view Tagore's literature as his philosophical thinking, ethics and aesthetics merge and coalesce with his environmental thinking. The paper also critically analyses the relevance of Tagore's environmental thinking in the present scenario.

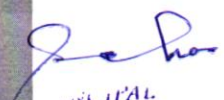
Keywords: nature, environment, crisis, ethics, vision, lesson

"O son of Kunti, the contact between the senses and the sense objects give rise to fleeting perceptions of happiness and distress. These are non-permanent, and come and go like the winter and summer seasons. O descendent of Bharat, one must learn to tolerate them without being disturbed."

(The Bhagavadgita 2. 14)

The present year has already made its mark in the history of human civilization as a year of crisis, death and apocalypse. A microscopic virus named 'Novel Coronavirus' has usurped normalcy, caused the COVID-19 pandemic with huge losses of life, livelihood, economy along with deep rooted psychological anxiety and trauma throughout the world. Though the magnitude and intensity of the suffering caused due to the pandemic has been country, region, climate, locale, class, caste, age, gender and education specific yet, almost everywhere in the world, human beings have been abruptly and cruelly reminded of the mortality of man.

The State of West Bengal, from which the present researcher hails, witnessed another disaster along with the pandemic, as the super cyclone Amphan made landfall


Dinanda Chand Halder
P.O. - D. Barasat, P.S. - Jaynagar
South 24 Parganas, Pin- 743371

UGC-CARE List


You searched for "ensemble". Total Journals : 1

Search:

Sr.No.	Journal Title	Publisher	ISSN	E-ISSN	UGC-CARE coverage	Remarks
1	Ensemble	Dr. Meghnad Saha College	NA	2582-0427	from January-2020 to October- 2021	Discontinued from Oct. 2021

Showing 1 to 1 of 1 entries

Previous 1 Next



PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

UGC APPROVED
CARE LISTED JOURNAL

ISSN 2229-3620

GOVT. OF INDIA RNI NO. - UPBIL/2015/62096




शोध संचार बुलेटिन

AN INTERNATIONAL MULTIDISCIPLINARY QUARTERLY BILINGUAL
PEER REVIEWED REFEREED RESEARCH JOURNAL

★ Vol. 10

★ Issue 37

★ January to March 2020


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Editor in Chief

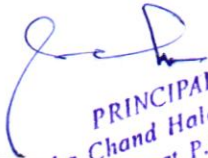
Dr. Vinay Kumar Sharma

D.Litt. - Gold Medalist



sanchar
Educational & Research Foundation

28.	TRADE-INDUCED FOREIGN DIRECT INVESTMENT IN SRI LANKA : A CASE STUDY OF INDIA-SRI LANKA FREE TRADE AGREEMENT	Dr. Ajay Kumar Mishra	152
29.	A REVIEW OF FEW IMPEDIMENTS IN MODERN EDUCATIONAL SYSTEM	Dr. Kushal De	158
30.	RELATIONSHIP BETWEEN MUSICIAN AND AUDIENCE	Dr. Maneesha Kulkarni	163
31.	RELATIONSHIP BETWEEN JOB SATISFACTION AND QUALITY OF LIFE AMONG ENTREPRENEURS	Dr. M.A. Bhardwaj Dr. Apoorva Hiray	167
32.	A STUDY OF CREDIBILITY OF SPICAL CONTACTS AND E-WOM; WITH SPECIAL REFERENCE TO CONSUMER PURCHASE INTENTION IN INDORE	Nihit Jaiswal Dr. Shubha R Singh	172
33.	AN EMPIRICAL STUDY ON PERCEIVED USEFULNESS OF SOCIAL NETWORKS IN VALUE CREATION FOR USERS IN VADODARA CITY OF THE GUJARAT STATE	Prof. Parimal H. Vyas Ms. Parinda V. Doshi	178
34.	ROLE OF EDUCATION IN ENHANCING THE CONSCIOUSNESS OF HUMAN RIGHTS	Dr. Ranjan Sarkar Dr. Dipak Kumar Singh	185
35.	IMPACT OF AGE AND GENDER ON CONSUMER PERCEIVED VALUE OF ONLINE FOOD DELIVERY APPS WITH SPECIAL REFERENCE TO INDORE	Mr. Vijay Kumar Singh Dr. Shubha R. Singh	189
36.	EFFECTIVENESS OF CLEAN INDIA CAMPAIGN AND ITS IMPACT ON TOURISM; A STUDY AT MAHAKALESHWAR UJJAIN MADHYA PRADESH	Mr. Vijay Temley Dr. Shubha R. Singh	195
37.	AN ANALYTICAL STUDY ON STOCK MARKET CRASHES THAT TURNED INTO BEST BUYING OPPORTUNITY FOR INVESTORS- SPECIAL REFERENCE TO CORONAVIRUS PANDEMIC	Ms. Richa Yadav	200
38.	TRACING CLIMATE CHANGE IN MUMBAI SUBURBAN	Nair Rajitha K.P.Sreenarayanan Dr. Preeti M Kulkarni	206
39.	HRD CLIMATE PREVAILING IN SELECTED AYURVEDIC MEDICINE MANUFACTURERS OF BHAVNAGAR DISTRICT	Chirag V. Vyas	213
40.	PERFORMANCE APPRAISAL PRACTICES IN BANKING SECTOR	Poorva Bhatt Geet Priya Jadhav	220
41.	IMPORTANCE OF ADMINISTRATIVE STRATEGIES ENRICHING EMPLOYEE JOB SATISFACTION	Dr. Sanjay Kumar	223


PRINCIPAL
 Shri Chandra Halder College
 P.O.- Dr. Barasat, P.S.- Jaynagar
 South 24 Parganas, Pin- 743377



A REVIEW OF FEW IMPEDIMENTS IN MODERN EDUCATIONAL SYSTEM

Dr. Kushal Das

ABSTRACT

Education is the one of the formal means of transferring the acquired knowledge in societies which is imparted to the masses. It also aims at opening up various dimensions of intelligence. Education in India had always aimed to enhance human perception and comprehend other dimensions of reality beyond physical existence which is clearly evident from the ancient Indian scriptures and literature. The seed of modern style of educational system which is followed in independent India was laid by Thomas Babington Macaulay through his minutes and was aimed to create obedience towards the English and have a steady source of clerks to serve the empire. Obedience and subjugation without resistance were the primary qualities to obtain grades and even today, grades determine the level of competency of a student. The contradictory seeds of progress are shown in young hearts and are nurtured with reinforcements for decades by parents, formalized educational system and the society in general. All sorts of talent needs to be nurtured and nourished in the society in order to progress in every area of life and living but the modern educational system has made intellect to be the sole guiding force. An individual with lower level of intellect is negatively reinforced in such a manner that his other skills die a natural death in the schools. Focused dedication is the key to success in any chosen field with bits and pieces of information about other subjects but a student is compelled to spend the developing years collecting information in every area which might never be required in his chosen field. This stops the genius from blossoming to its full potential and lead to frustration and anxiety. The present paper focuses on five such areas of specialization which are largely ignored in the present educational setup and the students are conditioned to be unsuccessful.

Keywords: education, concentration, discipline, anxiety, successful.

INTRODUCTION :

Coordination is the basis of human existence on this planet and societies were built up on mutual trust and cooperation since time immemorial. It has been established beyond doubt that civilized life on this planet has prospered because of division of labor and mutual cooperation. With progress of civilization, necessity was felt to transfer the acquired knowledge by one generation systematically to the next thus began transfer of learning through informal and formal means in human societies. Education is the one of the formal means of transferring the acquired knowledge in societies which is imparted to

the masses. It also aims at opening up various dimensions of intelligence.

The seed of modern style of educational which is followed in independent India was laid by Thomas Babington Macaulay through his minutes better known as Macaulay's Minutes in 1835. This was the first step towards Westernization of Indian education thereby seeking to replace the prevailing age old apprenticeship system of education in India better known as the Gurukul system. According to Deb (2014), 'The main objective of the minutes was to defuse European learning with vernacular education' but many argue that British

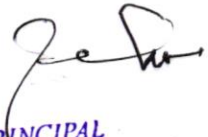
*Assistant Professor - Dhruba Chand Halder College Dakshin Barasat, South 24 Parganas, West Bengal.

UGC-CARE List

You searched for "**shodh sanchar**". Total Journals : **1**

Sr.No.	Journal Title	Publisher	ISSN	E-ISSN	UGC-CARE CATEGORIES
1	Shodh Sanchar Bulletin (print only)	Shodh Sanchar Educational and Research Foundation	2229- 3620	NA	from Sep April- 202

Showing 1 to 1 of 1 entries


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

ISSN 2454-5694

Volume 6

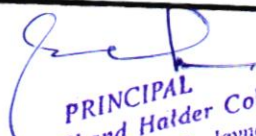
Number 2

December 2020

JOURNAL OF KOLKATA SOCIETY FOR ASIAN STUDIES

An International Bilingual Journal of
Social Science (UGC CARE)




PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Education of a Special Class :
Anglo Indians of British Bengal
Sweta Dey

... 209

Education as Medium to Transform Cultural Values
Kushal De

... 226

Attitude towards E-learning of Higher Secondary
school students of Birbhum District in West Bengal
*Dr. Nandini Banerjee, Dr. Amarnath Das,
Chiranjit Nayak*


... 232

মুক্তির ছাড়পত্র - বার্ষিক্য
শর্মিষ্ঠা ঘোষ

... 245

গৌড়ীয় নৃত্যে আবহ সংগীতের পর্যালোচনা
সোমাত্রী কোলে এবং মহুয়া মুখোপাধ্যায়

... 264


PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372


Education as Medium to Transform Cultural Values

Kushal De

Abstract: Education is considered as the best means to condition or de-condition any society. The basic principle underlying Indian education was to acknowledge the fact that the self is separate from the body, mind or senses and all pleasures are sought for the satisfaction of these faculties. Indian civilization reached its glory banking on these philosophies but the modern educational system adapted from the West contradicts these indigenous principles. The questioning culture was replaced by a commanding culture. The new system proposed, defined and validated ideas which were to be accepted unquestioned by the masses. Accumulation of data deemed worthy for the entire population and reproducing them on demand became the name of genius. This mad race hypnotized the masses to believe data as ultimate knowledge, truth as a static principle, knowledge as receivable from external agencies; thereby leading to the mediocrity of society.

Keywords: civilization, education, liberation, methodology, patronage, values.

Introduction: The proven remains of Indian civilization dates back to ten thousand years and despite numerous foreign invasions, the culture and values survived and continually flourished. Indian culture and ethos respected diversity as most of its ancient philosophies believe the truth to be evolving and constructible by an individual in unique manner. The experiences and realities faced by individuals are stored in the


PRINCIPAL
Drubha Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

UGC-CARE List

You searched for "kolkata society for asian studies". Total Journals : 1

Sl.No.	Journal Title	Publisher	ISSN	E-ISSN
1	Journal of Kolkata Society for Asian Studies	Kolkata Society for Asian Studies	2454-5694	NA

Showing 1 to 1 of 1 entries


PRINCIPAL

Dhruba Chand Halder College
P.O.- D. Barasat, P.S.-Jaynagar
South 24 Parganas, Pin- 743372

(Re)reading, (re)constructing and re-interpreting India's Colonial History: An Analysis of Mahasweta Devi's *The Queen of Jhansi*

Tapashree Ghosh

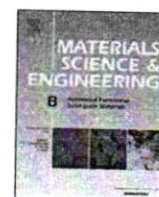
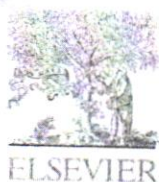
Abstract

Mahasweta Devi's handling of colonial history in the biography titled *The Queen of Jhansi* is based not only on the archival documents of 1857, the year that witnessed India's first battle for independence from colonial domination, but on oral history, myths, legends, poems, songs and collective memory of the people of Bundelkhand. Using these multiple sources she re-reads, re-constructs and re-interprets the life and (her) story of the queen of Jhansi. Lakshmibai, the Rani of Jhansi still lives in the hearts of the people of Bundelkhand. The present paper critically analyzes the text and locates it within Mahasweta Devi's vast literary canvas and her commitment to foreground the subaltern point of view.

Keywords: subaltern, history, domination, resistance, immortality.



PRINCIPAL
Ohruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743377



Structural, magnetic, electric and hyperfine behavior of a new multiferroic nanocomposite $(\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4)_{0.5}(\text{TiO}_2)_{0.5}$

A. Mitra^{a,b}, A. Shaw^c, Jean-Marc Greneche^d, P.K. Chakrabarti^{a,*}

^a Solid State Research Laboratory, Department of Physics, Burdwan University, Burdwan 713104, India

^b Department of Physics, The Heritage College, Kolkata 700107, India

^c Department of Physics, Dhruba Chand Halder College, Dakshin Barasat 743372, West Bengal, India

^d Institut des Molécules et Matériaux du Mans IMMM UMR CNRS 6283, Le Mans Université, 72085, Le Mans Cedex 9, France

ARTICLE INFO

Keywords:

Nanocomposite
Transmission Electron Microscopy
Magnetic properties
Electrical properties
Magnetoelectric coupling

ABSTRACT

A new multiferroic nanocomposite resulting from a subtle mixture of $\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ and TiO_2 nanocrystalline grains was synthesized by bottom-up approach. The structural, nanostructural and morphological characteristics of the nanocomposite were carefully evaluated from the X-ray patterns, from fringe patterns and selected area electron diffraction (SAED) patterns obtained by High Resolution Transmission Electron Microscope. The dielectric permittivity of the NZFO-TO nanocomposite is characterized by a phase transition from the ferroelectric to paraelectric order at ~ 390 K while the corresponding spectrum reveals a non-Debye type of relaxation phenomenon. It is concluded that this nanocomposite is suitable to be applied in magnetoelectric devices.

1. Introduction

The importance of a material could be increased in many ways for applications when it is linked to a suitable component that can lead to multiple functionalities. These multifunctionalities are very attractive for applications, as evidenced by the example of magnetoelectric material where the coupling between magnetic and electric ordering has been observed. These materials exhibit a change in ferroelectric polarization in the presence of an external magnetic field and vice-versa. They have a high potential for applications in microwave filters, four state memories, magnetic field sensors, magnetoelectric resonator, and energy harvesters etc [1–5]. However, the number of magnetoelectrics showing multiferroic properties with good coupling at room temperature (RT) is still very limited and it is also very difficult to find a single phase multiferroic material that exhibits magnetoelectric coupling at RT. However, it is possible to introduce mechanical magnetoelectric coupling under stress by correctly selecting two components in the nanocomposite phase [6–9]. For such magnetoelectric nanocomposite, the coupling between magnetic and electric orderings are originated from strain. In this sense, titanium dioxide (TiO_2) and a suitable ferrite may be promising candidates for the preparation of magnetoelectric nanocomposites. Here, TiO_2 is a good semiconducting material with high dielectric constant [10,11] and also its good chemical stability [12]


influences this material to be used as dye-sensitized solar cells, photocatalysts, and as an anode material for lithium-ion batteries [13–16]. $\text{Ni}_{0.5}\text{Zn}_{0.5}\text{Fe}_2\text{O}_4$ (NZFO) is considered as one of the components for the composite because it meets the criteria of high values of magnetization, resistivity and piezomagnetic coefficient [17–20]. Banerjee et al. have reported improved magneto-dielectric effect in composites of NiZn ferrite nanoparticles with BaTiO_3 , synthesized by a chemical method [21]. Magneto-dielectric characterization of TiO_2 - CoFe_2O_4 derived ceramic composites is also reported by Galizia et al [22]. In this regard NZFO and TiO_2 are potential candidates to exhibit strong magneto-electric effect in their nanocomposite state. The desired nanocomposite is obtained by incorporating the as-prepared NZFO nanoparticles into the TiO_2 matrix during the preparation by co-precipitation method. All relevant properties viz., structural, morphology, magnetic, dielectric, ferroelectric and magnetoelectric coefficient etc, are investigated and the obtained results suggest that the prepared nanocomposite would be a good addition in the family of type-II multiferroics with a significant value of magnetoelectric coupling.

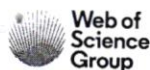
* Corresponding author.

E-mail address: pabitra_e@hotmail.com (P.K. Chakrabarti).

<https://doi.org/10.1016/j.mseb.2021.115454>

Received 23 December 2020; Received in revised form 8 August 2021; Accepted 4 September 2021
0921-5107/© 2021 Published by Elsevier B.V.


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



NEW

The power of the Web of Science™ on your mobile device, wherever inspiration strikes.

Dismiss

Learn More

Already have a manuscript?

Use our Manuscript Matcher to find the best relevant journals!

Find a Match

Refine Your Search Results

0921-5107

Search

Sort By: Title (A-Z)

Search Results

Found 1 results (Page 1)

Share These Results

Filters

Clear All

Web of Science Coverage

Open Access

Category

Country / Region

Language

Frequency

Journal Citation Reports

Exact Match Found

MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS

Publisher: ELSEVIER, RADARWEG 29, AMSTERDAM, Netherlands, 1043 NX

ISSN / eISSN: 0921-5107 / 1873-4944

Web of Science Core Collection: Science Citation Index Expanded

Additional Web of Science Indexes: Current Contents Engineering, Computing & Technology | Current Contents Physical, Chemical & Earth Sciences | Essential Science Indicators

Share This Journal

View profile page

* Requires free login.

Items per page: 10 1 - 1 of 1

Editorial Disclaimer: As an independent organization, Clarivate does not become involved in and is not responsible for the editorial management of any journal or the business practices of any publisher. Publishers are accountable for their journal performance and compliance with ethical publishing standards. The views and opinions expressed in any journal are those of the author(s) and do not necessarily reflect the views or opinions of Clarivate. Clarivate remains neutral in relation to territorial disputes, and allows journals, publishers, institutes and authors to specify their address and affiliation details including territory.

Criteria for selection of newly submitted titles and re-evaluation of existing titles in the Web of Science are determined by the Web of Science Editors in their sole discretion. If a publisher's editorial policy or business practices negatively impact the quality of a journal, or its role in the surrounding literature of the subject, the Web of Science Editors may decline to include the journal in any Clarivate product or service. The Web of Science Editors, in their sole discretion,

<https://mjl.clarivate.com/search-results>

PRINCIPAL
Dhruba Chandra Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



ScienceDirect

Materials Science and Engineering: B

Supports open access

4.5

CiteScore

3.407

Impact Factor

[Submit your article](#)[Guide for authors](#)

Menu

Latest
issue**Volume 290***In progress • April 2023*

About the journal

Advanced Functional Solid-State Materials

Materials Science and Engineering B (MSEB) aims at providing a leading international forum for material researchers across the disciplines of theory, experiment, and device applications. It publishes original studies and reviews related to the calculation, synthesis, processing, characterization, ...


[View full aims & scope](#)[materialstoday.com](#)

1.6 weeks



View all insights

<https://www.sciencedirect.com/journal/materials-science-and-engineering-b>


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

FEEDBACK

Magnetic Energy Morphing, Capacitive Concept for $\text{Ni}_{0.3}\text{Zn}_{0.4}\text{Ca}_{0.3}\text{Fe}_2\text{O}_4$ Nanoparticles Embedded in Graphene Oxide Matrix, and Studies of Wideband Tunable Microwave Absorption

Chandi Charan Dey, Sukhendu Sadhukhan, Ayan Mitra, Madhumita Dalal, Anirban Shaw, Anna Bajorek, and Pabitra K. Chakrabarti*



Cite This: ACS Appl. Mater. Interfaces 2021, 13, 46967–46979



Read Online

ACCESS |



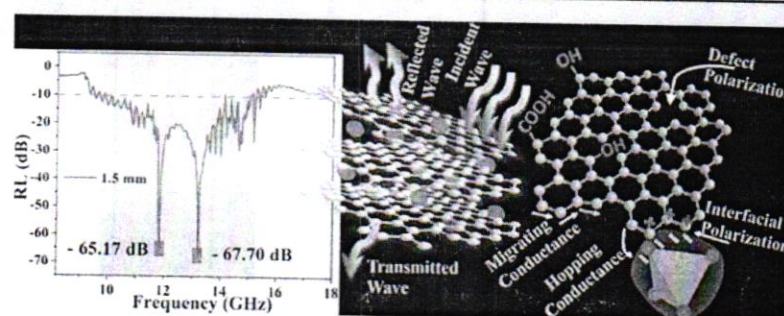
Metrics & More



Article Recommendations



Supporting Information



ABSTRACT: Nanoparticles of $\text{Ni}_{0.3}\text{Zn}_{0.4}\text{Ca}_{0.3}\text{Fe}_2\text{O}_4$ (NZCF) were successfully prepared by the facile wet chemical method coupled with the sonochemical method. These nanoparticles were embedded in a graphene oxide (GO) matrix (NZCFG). Rietveld analyses of X-ray diffraction, transmission electron microscope, scanning electron microscope, and X-ray photoelectron spectroscopy were carried out to extract different relevant information regarding the structure, morphology, and ionic state. A major improvement in saturation magnetization is achieved due to substitution of Ca^{2+} in the ferrite lattice. Interestingly, the observed value of electromagnetic absorption for a sample thickness of 1.5 mm is ~ -67.7 dB at 13.3 GHz, and the corresponding bandwidth is 5.73 GHz. The Cole–Cole plot, the Jonscher power-law fitting, and the Nyquist plot confirm the probability of improved hopping conductance and attractive capacitive behavior in NZCFG. The presence of magnetic energy morphing in combination with a higher attenuation constant, lower skin depth, and various forms of resonance and relaxation makes NZCFG the most suitable for microwave absorption.

KEYWORDS: graphene oxide, magnetic properties, dielectric losses, energy morphing, Nyquist plot, microwave absorption

1. INTRODUCTION

With the rapid advancement of civilizations, electromagnetic (EM) functionalized materials and devices have started offering numerous benefits to human activities, such as the use of ultralong waves for maritime communications and navigation; medium-short-range waves for televisions, radios, mobile phones, and medical systems; and centimeter waves for global position systems, military defense system, and satellite communications. The rapid progress of artificial intelligence (AI) has led the future strategy of human lifestyle and way of thinking and has created significant changes in the economic structure.^{1,2} The creation of new practical and nano-micro EM architectures continuously refreshes the environment and provides endless vitality to the potential growth of different fields, such as EM wave absorption cum shielding, detection, sensing, imaging, switching and wave filtering, including optics and photovoltaics.^{3–6} However, the emitted microwaves from these kinds of devices and/or from other high-frequency

circuits have raised serious concerns about risks to human health and the abnormal operation of other sensitive electronic devices.^{7–10} The demand for high-potential EM functional materials and devices, especially in low dimensions and nanoscales, has become one of the new scientific focal points. Microwave-absorbing materials may reduce these harmful radiations, but they still face a major challenge when producing high absorption bandwidth with high absorption losses for practical use.

Recently, with the benefits of low density and high reflection loss with a broad adsorption bandwidth, nanomaterials have

Received: June 2, 2021

Accepted: September 10, 2021

Published: September 22, 2021





ED MATERIALS & INTERFACES

Related Journals v

Journal – learn more
change

383 | Citations 2021: 345,640 | CiteScore 2021: 14.4

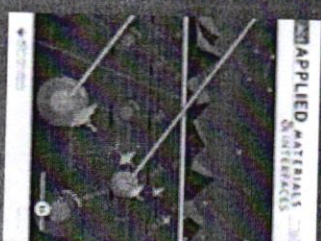
ASAP Articles

ASAP Articles are edited and published online ahead of issue. See all articles.

Current Issue

Authors

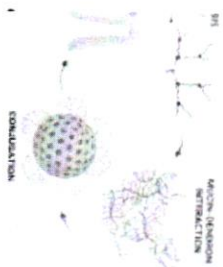
Volume 15, Issue 4
February 1, 2023



Submit

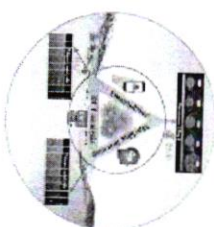
G

G



Dendrons
Mesoporous Silica
as a Drug Delivery
Orally Administered ...

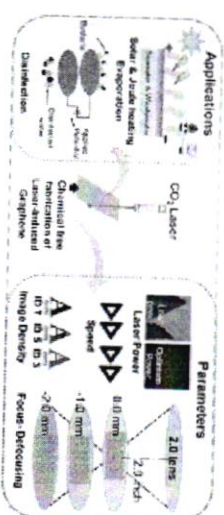
... and Stine Rønholt*



Machine Learning System To
Monitor Hg²⁺ and Sulfide Using a
Polychromatic Fluorescence-
Colorimetric Paper Sensor

Zhiwei Lu, ... and Hanbing Rao*

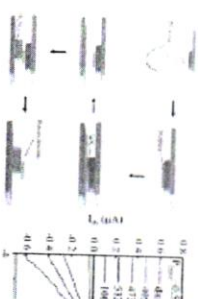
February 7, 2023



Effect of Laser Parameters on
Laser-Induced Graphene Filter
Fabrication and Its Performance for
Desalination and Water Purification

Utkarsh Misra, ... and Swatantra P. Singh*

February 7, 2023



Fast Fabrication of WS₂
Heterostructures for H
Performance Photodet

Fan Li, ... and Linjun Li*

February 7, 2023

SEE MORE

Recent highlights from the journal.

PRINCIPAL

Dhruva Chand Halder College
P.O.-D. Barasat, P.S.-Jajmoh
South 24 Parganas, Pin- 743372

Forums

Spotlights & Reviews



NEW

The power of the Web of Science™ on your mobile device, wherever inspiration strikes

Dismiss

Learn More

Already have a manuscript?

Use our Manuscript Matcher to find the best relevant journals!

Find a Match

Refine Your Search Results

1944-8244

Search

Sort By: Title (A-Z)

Search Results

Found 1 results (Page 1)

Share These Results

Exact Match Found

ACS APPLIED MATERIALS & INTERFACES

Publisher: AMER CHEMICAL SOC , 1155 16TH ST, NW, WASHINGTON, USA, DC, 20036

ISSN / eISSN: 1944-8244 / 1944-8252

Web of Science Core Collection: Science Citation Index Expanded

Additional Web of Science Indexes: Current Contents Engineering, Computing & Technology | Current Contents Physical, Chemical & Earth Sciences | Essential Science Indicators

Share This Journal

View profile page

* Requires free login.

Items per page: 10 1 - 1 of 1

Editorial Disclaimer: As an independent organization, Clarivate does not become involved in and is not responsible for the editorial management of any journal or the business practices of any publisher. Publishers are accountable for their journal performance and compliance with ethical publishing standards. The views and opinions expressed in any journal are those of the author(s) and do not necessarily reflect the views or opinions of Clarivate. Clarivate remains neutral in relation to territorial disputes, and allows journals, publishers, institutes and authors to specify their address and affiliation details including territory.

Criteria for selection of newly submitted titles and re-evaluation of existing titles in the Web of Science are determined by the Web of Science Editors in their sole discretion. If a publisher's editorial policy or business practices negatively impact the quality of a journal, or its role in the surrounding literature of the subject, the Web of Science Editors may decline to include the journal in any Clarivate product or service. The Web of Science Editors, in their sole discretion, may remove titles from coverage at any point if the titles fail to maintain our standard of quality, do not comply with ethical standards, or otherwise do not

Dr. Anurupa Chand Halder
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



ENSEMBLE

A bi-lingual peer reviewed academic journal

ISSN 25820427 (Online)

Special Issue No. 1

March, 2021

<http://www.ensembledrms.in>

Theme: 'The Global Pandemic Outbreak 2020: Multidisciplinary Speculation on Impacts and Responses'

Article Type: Research Article

Article Ref. No.: 20113000445LF

<https://doi.org/10.37948/ensemble-2021-sp1-a019>



LOCKDOWN MEASURES IN INDIA AND ITS ECONOMIC IMPACT ON LOW INCOME GROUPS

Abhijit Pathak¹, Kushal De²

Abstract:

The complete lockdown measures implemented in India to combat the spread of the COVID-19 pandemic had a profound impact on the economic conditions of the working class of the country. The initial jolt pushed the unemployment figures to 23.52% in April 2020, and to date, the recovery has been far from satisfactory. The quarterly GDP growth data have indicated a negative real GDP growth for India for the fiscal year 2020-21. As data on employment, income, consumption, saving, borrowing, and access to different public utilities are available after a time-lag; there was no other option but to depend on micro-level studies to get an idea of the real picture on the ground. In this paper, we have attempted to assess the impact of the lockdown on the workers of unorganized sectors especially the self-employed and the daily wage earners of different service sectors from urban and semi-urban areas located in and around South 24 Parganas district of West Bengal. The present study has found that the income of workers from the informal sectors has recorded a sharp decline during the lockdown period. As these workers primarily belong to the low-income group, their consumption expenditures have also declined concomitantly, reflecting their low economic endowments. Most of them didn't have much savings to support the sudden decline in their income, thereby resulting in a decline in consumption expenditure. This decline is most severe for daily wage workers. This paper has argued in favour of direct cash transfer from the government to low-income people as the only way out to overcome the present crisis.

Article History: Submitted on 30 Nov 2020 | Accepted on 9 February 2021 | Published online on 00 April 2021

Keywords: COVID-19, Economy, Income, Informal sector, Unemployment

1.0 Introduction:

The world economy is fighting the COVID-19 pandemic since March 2020 and India is no exception to it. The Government of India (GOI) announced a complete lockdown all over the country to prevent the spread of COVID-19 effective from the mid-night of March 23, 2020 (The Hindu 2020). This complete lockdown that was initially implemented for three weeks was extended up to May 31, 2020 in four phases (The Economic Times 2020). The process of unlocking has started since then, but India is yet to reach normalcy. Movements of passengers by rail and air were restricted to a large extent in many parts of the country till November 2020. The impact of the lockdown measures was huge on the working class of the country, mostly

1 [Author] ✉ [Corresponding Author] Assistant Professor, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, 743372, West Bengal, INDIA. E-mail: abhijitdch@gmail.com

2 [Author] Assistant Professor, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, 743372, West Bengal, INDIA.

© 2021 Ensemble; The authors



This work is licensed under Creative Commons Attribution 4.0 International License



PRINCIPAL

Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Juvak, Dist.- South 24 Parganas, Pin- 743372

UGC-CARE List

You searched for "ensemble". Total Journals : 1

Sl.No.	Journal Title	Publisher	ISSN	E-ISSN	Action
1	Ensemble	Dr. Meghnad Saha College	NA	2582-0427	View

Showing 1 to 1 of 1 entries

Previous **1** Next

gsh
PRINCIPAL
Bharuba Chand Halder College
P.O.-Bh. Barua, P.S.-Jajnagar
South 24 Parganas, Pin- 743372



Article Type: Research Article

Article Ref. No.: 20113000443RF

<https://doi.org/10.37948/ensemble-2021-sp1-a016>



(RE)READING RABINDRANATH TAGORE'S GITANJALI: MEANINGS FOR OUR TROUBLED, PANDEMIC STRICKEN TIMES

Tapashree Ghosh¹

Abstract:

The COVID 19 pandemic is far from over. The second wave of the virus is already adversely affecting countries such as England, France, Germany, and the USA. In India, people are suffering from the widespread impact of this disease for the last nine months. It has deeply affected our life, livelihood, health, economy, environment, and mental health. This grim scenario is not only specific to our country but can be witnessed globally. At this critical juncture, literature is extremely important as it can lift us from the nadir of depression and the abyss of nothingness. Hence, while critically engaging with the sub-theme 'Pandemic and Literature' we should not limit our studies to texts dealing with crises, pandemics and apocalypse. We must broaden our perspective to include texts that can emotionally heal us and generate feelings of positivity, faith, strength, and peace. Hence, this paper re-reads Tagore's Gitanjali from the present position of being sufferers of a global crisis. The text is timeless and our contemporary. It contains Tagore's deep engagement with philosophy and spirituality. We should re-read it and fetch newer meanings relevant to our present context. It is relevant and a necessary read for both 'the home and the world'.

Article History: Submitted on 30 Nov 2020 | Accepted on 9 February 2021 | Published online on 17 April 2021

Keywords: Anxiety, Death, Fear, Heal, Spirituality, Peace, Salutation, Strength

"The mind is very restless, turbulent, strong and obstinate, O Krishna. It appears to me that it is more difficult to control than the wind" (The Bhagavad Gita, 6: 34)

We, Indians, are living under extremely difficult conditions for the past few months due to the widespread impact of the COVID-19 pandemic. It has adversely affected our life, livelihood, health, economy, environment, the idea of normalcy, and mental wellbeing. This grim scenario is not only specific to India but is felt around the world. Even after nine months of struggle to survive amidst all odds, the pandemic is far from over. The fear of the second wave of the pandemic looms large with the approach of winter (as the life of the virus increases with the decrease in temperature) and with the European nations such as England, France and Germany along with the United States of America, already suffering from the viral attack anew. Though, in India, the number of active cases of the COVID-19 infection is reducing compared to the figures in the month of September; still, the pandemic is not showing any signs of getting over.

1 [Author] ✉ [Corresponding Author] Assistant Professor, Dhruva Chand Halder College, P.O.- Dakshin Barasat, Dist- South 24 Parganas, Pin-743372, West Bengal, INDIA. E-mail: tapashree.ghosh.deb@gmail.com

© 2021 Ensemble; The author



This work is licensed under Creative Commons Attribution 4.0 International License



PRINCIPAL

Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
S489, 24 Parganas. Pin- 743372

DSpace JSPUI

DSpace preserves and enables easy and open access to all types of digital content including text, images, moving images, mpegs and data sets

Learn More (<http://www.dspace.org>)



VU Digital Repository (/jspui/) / Vidyasagar University Periodicals Repository (/jspui/handle/123456789/82)

/ Journal of the Department of English (/jspui/handle/123456789/1486)

/ Journal of the Department of English - Vol 14 [2021] (/jspui/handle/123456789/5749)

Please use this identifier to cite or link to this item: <http://inet.vidyasagar.ac.in:8080/jspui/handle/123456789/5754>

Title: (Re)reading, (re)constructing and re-interpreting India's colonial history: An analysis of Mahasweta Devi's The Queen of Jhansi

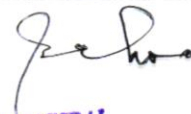
Authors: Ghosh, Tapashree (/jspui/browse?type=author&value=Ghosh%2C+Tapashree)

Keywords: subaltern
history
domination
resistance
immortality

Issue Date: Feb-2021

Publisher: Vidyasagar University, Midnapore, West Bengal, India, 721102

Series/Report no.: Journal of the Department of English;Vol 14 [2021]


PRINCIPAL
Dr. Ruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas. Pin- 743372

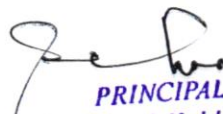
(Re)reading, (re)constructing and re-interpreting India's Colonial History: An Analysis of Mahasweta Devi's *The Queen of Jhansi*

Tapashree Ghosh

Abstract

Mahasweta Devi's handling of colonial history in the biography titled *The Queen of Jhansi* is based not only on the archival documents of 1857, the year that witnessed India's first battle for independence from colonial domination, but on oral history, myths, legends, poems, songs and collective memory of the people of Bundelkhand. Using these multiple sources she re-reads, re-constructs and re-interprets the life and (her) story of the queen of Jhansi. Lakshmibai, the Rani of Jhansi still lives in the hearts of the people of Bundelkhand. The present paper critically analyzes the text and locates it within Mahasweta Devi's vast literary canvas and her commitment to foreground the subaltern point of view.

Keywords: subaltern, history, domination, resistance, immortality.


PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

UGC-CARE List


You searched for "0973-3671". Total Journals : 1

Search

Sr.No.	Journal Title	Publisher	ISSN	E-ISSN	UGC CARE coverage years	Details
1	Journal of the Department of English	Vidyasagar University	0973-3671	NA	from September-2019 to Present	<input type="button" value="Details"/>

Showing 1 to 1 of 1 entries

[Previous](#) 1 [Next](#)


PRINCIPAL
Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743377



RESEARCH PAPER

OPEN ACCESS

Analysis of codon usage pattern and gene expression in *Aspergillus fumigatus*

Satyabrata Sahoo*

Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., India

Key words: Codon usage, Codon bias, Gene expression, *Aspergillus fumigatus*, PHE genes

<http://dx.doi.org/10.12692/ijb/19.4.181-194>

Article published on October 30, 2021

Abstract

The codon usage pattern and its impact on gene expression has been investigated in protein coding genes of *Aspergillus fumigatus*. Multivariate statistical analysis has been used to analyze compositional properties and codon usage pattern of genes. The results suggest that the selection of translational efficiency due to natural selection is the major factor shaping the codon usage in *Aspergillus fumigatus*. Using different codon usage indices as numerical estimators of gene expression level, a critical analysis has been performed to predict highly expressed (PHE) genes in *Aspergillus fumigatus*. The codon usage indices correlate well with the gene expression data set stem from the transcriptional responses of the micro-organisms, suggesting that codon usage is an important determinant of gene expression. We found a systematic strong correlation between N_c (effective number of codons) and different expression-measures. Our study highlights the relationship between gene expression and compositional signature in relation to the codon usage bias in *Aspergillus fumigatus*.

*Corresponding Author: Satyabrata Sahoo ✉ dr_s_sahoo@yahoo.com



RESEARCH PAPER

OPEN ACCESS

Analysis of Codon Usage and Nucleotide Bias in Severe Acute Respiratory Syndrome Coronavirus 2(SARS-CoV-2) Genes

Satyabrata Sahoo

Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., India

Key words: SARS-CoV-2; Relative synonymous codon usage (RSCU); Codon bias; Codon adaptation index; Codon deoptimization; Statistical analysis.

<http://dx.doi.org/10.12692/ijb/19.1.31-45>

Article published on July 31, 2021

Abstract

SARS-CoV-2 has recently emerged as a virus that poses a significant public health concern. The genetic features concerning the codon usage of SARS-CoV-2 genes were analyzed by the relative synonymous codon usage, the relative strength of codon bias, the effective number of codons (ENC), the codon adaptation index, and neutrality plot. Compositional analysis indicated that G and C at the first and second codon positions significantly affect synonymous codon choices. The mutational bias toward A/U may confer a selective advantage. The results suggest that mutation, together with selection dynamics, may play an essential role in shaping the pattern of codon usages in SARS-CoV-2 genomes. Turning to the codon usage preference and codon pair association in the viral genome, some of the most preferentially used codon observed across the genome did not occur at similar magnitudes in all genes. The possible co-evolution of the virus and its adaptation to the animal host has been discussed based on the codon adaptation index and codon de-optimization index.

*Corresponding Author: Satyabrata Sahoo ✉ dr_s_sahoo@yahoo.com



2019 Novel Human Coronavirus Sars-Cov-2 And Covid-19: A Brief Review

 Satyabrata Sahoo^{*1} and Ria Rakshit²

^{*1}Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., India

²Department of Botany, Baruipur College, South 24 Parganas, W.B., India

Abstract: The emergence of the 2019 novel coronavirus SARS-CoV-2, causing a highly contagious disease COVID-19 poses a tremendous global public health concern. As the disease is quickly developing into a worldwide pandemic, a careful analysis of its origin, evolution, transmission, and cellular mechanism is urgently needed to combat the deadly virus. Successful isolation of the 2019-nCoV has promoted some bioinformatic studies to understand the viral origin and the feature of its infectivity. However, at this stage, much remains unclear about the origin of the novel virus and to be investigated to develop ways to control its spread. The mechanisms associated with the infectiousness of SARS-CoV-2 are not entirely understood. The current knowledge in 2019-nCoV pathogenicity and transmissibility along with several commonly known emerging viruses and information is very much important for better control of the disease. So far, the treatment is only supportive. Any antiviral agent is yet to emerge. The scientific community raced to understand the pathogenesis of the disease for developing treatment options. Extensive research is going on to understand the host response to the pandemic virus to develop the disease therapeutic. To fill the knowledge gap about the human immune response to SARS-CoV-2 infections that may help in designing the appropriate immune intervention for treatment, diagnosis, and prophylactic/therapeutic vaccines against COVID-19, we present hereby a brief review on the genomic organization, origin, and evolution, transmission and pathogenesis of the novel virus, and clinical spectrum and possible preventive measures against COVID-19 which may be used for future references.

Keywords: CAI • Codon usage bias • GC content • gene expression • RSCU • SARS-CoV-2

*Corresponding Author

Satyabrata Sahoo, Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., India



Received On 14 December 2020

Revised On 22 January 2021

Accepted On 23 January 2021

Published On 26 January 2021

Funding This research did not receive any specific grant from any funding agencies in the public, commercial or not for profit sectors.

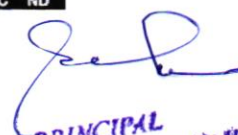
Citation Satyabrata Sahoo and Ria Rakshit, 2019 Novel Human Coronavirus Sars-Cov-2 And Covid-19: A Brief Review.(2021).Int. J. Life Sci. Pharma Res.11(1), L273-283 <http://dx.doi.org/10.22376/ijpbs/lpr.2021.11.1.L273-283>

This article is under the CC BY-NC-ND Licence (<https://creativecommons.org/licenses/by-nc-nd/4.0>)

Copyright © International Journal of Life Science and Pharma Research, available at www.ijlpr.com

Int J Life Sci Pharma Res., Volume 11., No 1 (January) 2021, pp L273-283




PRINCIPAL
Dhruba Chand Halder College
P.O. = D. Barasat, P.S. = Jaynagar
South 24 Parganas. Pin- 743377

Analysis of the codon usage pattern in 2019-nCoV

Satyabrata Sahoo

Department of Physics,
Dhruba Chand Halder College,
Dakshin Barasat, South 24 Parganas,
743372, WB, India
Email: dr_s_sahoo@yahoo.com

Abstract: Upon a viral outbreak of novel coronavirus (2019-nCoV), it is very important to understand the molecular characteristics of the SARS-CoV-2 genome to detect the causative agent of the deadly viral infection. In the present study, we comprehensively analysed the codon usage pattern of SARS-CoV-2 to gain an insight into the viral pathogenesis as well as the evolutionary process of the newly emerging coronavirus. The correspondence analysis (CA), the effective number of codons versus GC3(NC-plot), and the relationship between GC12 versus GC3 show that a low codon usage bias exists in SARS-CoV-2. Both mutation and natural selection pressure have contributed to this low codon usage bias, with the former being the main determining factor. Lastly, the relationship of codon usage index (CUI), codon adaptation index (CAI), and the gene expression profile of SARS-CoV-2 genes have been discussed in reference to codon bias score (CBS) for further study on the virus-host relationship and their evolutionary phenomenon.

Keywords: CAI; codon adaptation index; codon usage bias; GC content; gene expression; RSCU; relative synonymous codon usage; SARS-CoV-2.

Reference to this paper should be made as follows: Sahoo, S. (2021) 'Analysis of the codon usage pattern in 2019-nCoV', *Int. J. Computational Biology and Drug Design*, Vol. 14, No. 4, pp.273–296.

Biographical notes: Satyabrata Sahoo is a Principal of Dhruba Chand Halder College (Under University of Calcutta), Dakshin Barasat, South 24 Parganas, West Bengal, India.

1 Introduction

Coronavirus (CoV), first reported in 1949 (Bailey et al., 1949; Cheever et al., 1949) is a positive sense, single-stranded RNA virus. It is the largest known RNA virus (Bailey et al., 1949) and its length ranges from 26 kb to 32 kb. It belongs to the family of Coronaviridae (Lee et al., 1991; Lomniczi, 1977; Weiss and Navas-Martin, 2005). Coronaviruses are genetically classified into four major genera: *Alphacoronavirus*, *Betacoronavirus*, *Gammacoronavirus*, and *Deltacoronavirus*. Six kinds of CoVs have been previously identified that infect humans, including Human CoV-229E (HCoV-229E), Human CoV-NL63 (HCoV-NL63), which belong to the *Alphacoronavirus* genus;



Analysis of Codon Usage Pattern and Predicted Gene Expression in *Neurospora Crassa*: A Novel in Silico Approach

Satyabrata Sahoo

Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., INDIA

Abstract: The codon usage pattern of genes has a key role in the gene expression and adaptive evolution of an organism. It is very significant in understanding the role of complex genomic structure in defining cell fates and regulating diverse biological functions. In this paper, we discussed that the codon usage index (CAI_g) based on all protein-coding genes is a promising alternative to the Codon Adaptation Index (CAI). CAI_g which measures the extent that a gene uses a subset of preferred codons relies exclusively on sequence features and is used as a good indicator of the strength of codon bias. A critical analysis of predicted highly expressed (PHE) genes in *Neurospora crassa* has been performed using codon usage index (CAI_g) as a numerical estimator of gene expression level. Analyzing compositional properties and codon usage pattern of genes in *Neurospora crassa*, our study indicates that codon composition plays an important role in the regulation of gene expression. We found a systematic strong correlation between CAI_g and CBI (codon bias index) or other expression-measures. Here, we show that codon usage index CAI_g correlates well with both protein and mRNA levels; suggesting that codon usage is an important determinant of gene expression. Our study highlights the relationship between gene expression and compositional signature in relation to codon usage bias in *Neurospora crassa* and sets the ground for future investigation in eukaryotic biology.

Keywords: Codon usage bias • gene expression • GC content • *Neurospora crassa* • PHE genes • CAI .

*Corresponding Author

Satyabrata Sahoo, Department of Physics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, W.B., INDIA



Received On 29 May, 2021

Revised On 6 August, 2021

Accepted On 11 August, 2021

Published On 3 September, 2021

Funding This work is supported by Engineering Research Board, DST, Govt. of India Grant no. MATRICS [File No: MTR/2019/000274].


Citation Satyabrata Sahoo, Analysis of Codon Usage Pattern and Predicted Gene Expression in *Neurospora Crassa*: A Novel in Silico Approach. (2021). Int. J. Life Sci. Pharma Res. 11(5). 35-60 <http://dx.doi.org/10.22376/ijpbs/lpr.2021.11.4.L35-60>

This article is under the CC BY- NC-ND Licence (<https://creativecommons.org/licenses/by-nc-nd/4.0>)




Copyright © International Journal of Life Science and Pharma Research, available at www.ijlpr.com

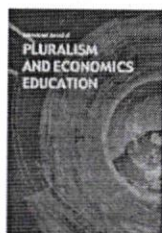
Int J Life Sci Pharma Res., Volume 11., No 5 (September) 2021, pp 35-60


PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas. Pin- 743372

[Home](#) > International Journal of Pluralism and Economics Education

International Journal of Pluralism and Economics Education

 This journal also publishes Open Access articles*



Editor in Chief

Dr. Jack Reardon

ISSN online

1757-5656

ISSN print

1757-5648

4 issues per year

[Subscription price](#)

CiteScore

0.4 (2021)

Scopus®

Key elements of pluralism include respect for diversity/alternative views, toleration, willingness to learn, curiosity, friendliness. Among economists, Edward Fullbrook dissects weaknesses of traditional economics while advocating pluralism; John Groenewegen exhorts universities to incorporate pluralism and connect to other social sciences; Mark Maier and Julie Nelson provide suggestions for making economics relevant to high-school students within a pluralist framework; Jack Reardon offers hands-on approaches for incorporating pluralism in the classroom. *IJPEE* addresses pluralism's further development and implementation into the classroom.

[About this journal](#)

[Editorial board](#)

[Submitting articles](#)

Topics covered include

- Defining pluralism; what is pluralism, how can we incorporate it into the classroom?
- Rhetoric of pluralism: communicating within/across disciplines
- Teaching theory of the firm from a pluralist perspective
- Teaching pluralism in developing countries
- What can pluralists learn from Adam Smith and other classical economists?
- Incorporating pluralism into online courses
- Using pluralism to construct a framework for solving global problems
- Are there limits to extending pluralism?
- Pluralism and the individual
- Pluralism as a central component of honours courses
- Pluralism at the community college, encouraging pluralism at high school level
- Necessary mathematics for pluralism
- Reaching out to other social sciences
- Teaching ecology, understanding the financial crisis from a pluralist perspective

[Sign up for new issue alerts](#)

[Subscribe/buy articles/issues](#)

[View sample articles](#)

[Latest issue contents as RSS feed](#) 

[Forthcoming articles](#)

[Journal information in easy print format \(PDF\)](#)

[Publishing with Inderscience: ethical statement](#)


[Recommend to a librarian \(PDF\)](#)

[Feedback to Editor](#)


[Get permission to reproduce content](#)


[Find related journals](#)

Keep up-to-date

 [Our Blog](#)

 [Follow us on Twitter](#)

 [Visit us on Facebook](#)

 [Our Newsletter \(subscribe for free\)](#)

 [RSS Feeds](#)

 [New issue alerts](#)



PRINCIPAL

Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



INDERSCIENCE PUBLISHERS
Linking academia, business and industry through research

[International Journal of Pluralism and Economics Education](#) > [2021 Vol.12 No.1](#)

Title: COVID-19 crisis and role of the Indian state

Authors: Abhijit Pathak; Apurba Kumar Chattopadhyay

Addresses: Department of Economics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, 743372, West Bengal, India * Department of Economics and Politics, Visva-Bharati, Santiniketan, 731235, West Bengal, India

Abstract: COVID-19 has affected the world with varied intensity and India is no exception. The lockdown measures implemented in India to combat COVID-19 rendered significant economic costs in terms of loss of employment, income, and output. In this paper, we find that the national lockdown measures adopted by the GOI have weakened the states financially, making them financially more dependent on the centre. This paper argues that the interests of domestic capitalists and international finance capital have restricted India from increasing its government expenditure and adopting economic policies for the best benefits of its citizens. Thus, financial weakness of the state governments has accentuated during the lockdown period and has tilted the balance further in favour of the centre. This is neither encouraging from the perspective of fiscal federalism in India nor for the delivery of welfare to its citizens. This may even delay the process of India's economic recovery.

Keywords: COVID-19; fiscal deficit; federalism; international finance capital; India.

DOI: [10.1504/IJPEE.2021.118150](#)

International Journal of Pluralism and Economics Education, 2021 Vol.12 No.1, pp.71 - 79

Received: 08 Dec 2020

Accepted: 15 Jul 2021

Published online: 04 Oct 2021

[Full-text access for editors](#) [Access for subscribers](#) [Purchase this article](#)

[Comment on this article](#)

Keep up-to-date

[Our Blog](#)

[Follow us on Twitter](#)

[Visit us on Facebook](#)

[Our Newsletter \(subscribe for free\)](#)

[RSS Feeds](#)

[New issue alerts](#)

[Return to top](#)

[Contact us](#)

[About Inderscience](#)

[OAI Repository](#)

[Privacy and Cookies Statement](#)

[Terms and Conditions](#)

[Help](#)

[Sitemap](#)

© 2021 Inderscience Enterprises Ltd.

PRINCIPAL

**Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372**

COVID-19 crisis and role of the Indian state

Abhijit Pathak*

Department of Economics,
Dhruba Chand Halder College,
Dakshin Barasat, South 24 Parganas,
743372, West Bengal, India
Email: abhijitdch@gmail.com

*Corresponding author

Apurba Kumar Chattopadhyay

Department of Economics and Politics,
Visva-Bharati, Santiniketan,
731235, West Bengal, India
Email: apurbakumar.chattopadhyay@visva-bharati.ac.in

Abstract: COVID-19 has affected the world with varied intensity and India is no exception. The lockdown measures implemented in India to combat COVID-19 rendered significant economic costs in terms of loss of employment, income, and output. In this paper, we find that the national lockdown measures adopted by the GOI have weakened the states financially, making them financially more dependent on the centre. This paper argues that the interests of domestic capitalists and international finance capital have restricted India from increasing its government expenditure and adopting economic policies for the best benefits of its citizens. Thus, financial weakness of the state governments has accentuated during the lockdown period and has tilted the balance further in favour of the centre. This is neither encouraging from the perspective of fiscal federalism in India nor for the delivery of welfare to its citizens. This may even delay the process of India's economic recovery.

Keywords: COVID-19; fiscal deficit; federalism; international finance capital; India.

Reference to this paper should be made as follows: Pathak, A. and Chattopadhyay, A.K. (2021) 'COVID-19 crisis and role of the Indian state', *Int. J. Pluralism and Economics Education*, Vol. 12, No. 1, pp.71–79.

Biographical notes: Abhijit Pathak is an Assistant Professor in the Department of Economics, Dhruba Chand Halder College, Dakshin Barasat, South 24 Parganas, West Bengal, India. Earlier, he has also worked as a research officer in the Department of Economic Analysis and Policy of the Reserve Bank of India for about five years. He obtained his MA and MPhil in Economics from Jawaharlal Nehru University, New Delhi, India. His areas of interest are macroeconomics, banking and finance.

Apurba Kumar Chattopadhyay is a Professor in Economics at the Department of Economics and Politics and Coordinator of the Departmental Research Scheme, Visva-Bharati, Santiniketan. He was a Visiting Chair Professor at the Centre for Contemporary Indian Studies, University of Colombo, Sri Lanka. He



PRINCIPAL

Dhruba Chand Halder College

P.O.: D. Barasat, Pin-743372
South 24 Parganas, Pin-743372

Copyright © 2021 Inderscience Enterprises Ltd.

Debates on agricultural loan waiver schemes in India: myths and realities

Abhijit Pathak^a and Apurba Kumar Chattopadhyay^b

^aDepartment of Economics, Dhruba Chand Halder College, South 24 Pgs, West Bengal, India; ^bDepartment of Economics & Politics, Visva-Bharati, Santiniketan, West Bengal, India

ABSTRACT

The agriculture sector in India is marred with several problems, which have resulted in farmers' distress. To address the distress of the farmers, both Central and State Governments of India implemented agricultural debt waiver schemes (ADWRs) as major policy interventions in recent years. These schemes differ in terms of coverage of the farmers and lending agencies. However, all of them aim to benefit millions of small and marginal farmers of India. The implication and evaluation of these schemes has invited serious criticisms from both policy makers and researchers. It is true that these schemes have created fiscal pressure on the implementing governments. In addition, some degree of corruption has become an integral part of the schemes. However, given the extent of the indebtedness of the farmers, waivers may also be crucial as a temporary measure to mitigate agricultural distress. This paper explores the debate and examines the criticism of the ADWRs from various quarters. We have found that the majority of arguments against the debt waiver schemes widely accepted amongst bankers, policy makers and even economists are based on perceptions and are not backed by sound economic logic and analysis.

KEYWORDS

Agricultural credit; debt waiver scheme; commercial banks; moral hazard problem



PRINCIPAL

Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

Contemporary South Asia

Enter keywords, authors, DOI, ORCID etc

This Journal

Advanced search Citation search

Publish with us
Submit an article

About this journal

Explore
Browse all articles & issues

Subscribe
Alerts & RSS feed

Latest issue

Purchase a subscription

Ready to submit?

Start a new manuscript submission or continue a submission in progress

Go to submission site

Journal information

Print ISSN: 0958-4935 Online ISSN: 1469-364X

4 issues per year

Submission information

Instructions for authors

Editorial policies

Editing services

Editing services site

About this journal

Journal metrics

Aims & scope

Journal information

Society information

Editorial board

News & call for papers

Contemporary South Asia is covered by the following abstracting, indexing, and citation services:

International Bibliography of the Social Sciences

SASNET (Swedish South Asian Studies Network)

SCOPUS

Social Sciences Citation Index (SSCI)

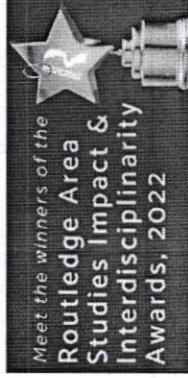
Sociological Abstracts

Taylor & Francis make every effort to ensure the accuracy of all the information (the "Content") contained in our publications. However, Taylor & Francis, our agents (including the editor, any member of the editorial team or editorial board, and any guest editors), and our licensors, make no representations or warranties whatsoever as to the accuracy, completeness, or suitability for any purpose of the Content. Any opinions and views expressed in this publication are the opinions and views of the authors, and are not the views of or endorsed by Taylor & Francis. The accuracy of the Content should not be relied upon and should be independently verified with primary sources of



Sample our
Area Studies
Journals

>> Sign in here to start your access
to the latest two volumes for 14 days




PRINCIPAL

Dhruva Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372

ISSN:0976-0822



Kalyan Bharati


Vol: 36, No: (VI), 2021

Kalyan Kumar Dasgupta Memorial Committee
Kolkata, West Bengal


PRINCIPAL
Dhruba Chand Halder College
P.O. - D. Barasat, P.S. - Jaynagar
Parganas, Pin- 743372

CONTENTS

Sr. No.	Name of Topic	Name of Author	Page No.
53	A STUDY OF MORAL VALUES AMONG TEACHER TRAINEES IN WARANGAL DISTRICT, TELANGANA	Venkatrao Neeruti Dr. M. Soundararajan	347-351
54	SAVING A LOST WORLD: WOMEN'S ROLE IN NURTURING A CULTURE OF PEACE	Dr. Jayashree Pillai	352-358
55	FOR PROGRESSIVE TEACHER EDUCATION PEACE AND WELLBEING ARE IMPORTANT PHENOMENA	Dr. Mita Howlader	359-367
56	A COMPARITIVE ANALYSIS OF BASKETBALL AND HANDBALL PLAYER MENTAL TOUGHNESS	Dr. Gaganpreet Kaur Dr. Mahak	368-370
57	UNDERSTANDING DEMOCRACY	Dr. Gopinath Pillai	371-377
58	AN URGENCY OF PSYCHOTHERAPY TO PARENTS OF INTELLECTUAL DISABLED CHILDREN'S	Dr. Chandrashekar, Banasode Jagadish. S. Sarikar	378-382
59	ENGAGEMENT IN CURRICULUM ACTIVITIES OF SCHEDULED CASTE, SCHEDULED TRIBE AND GENERAL CATEGORY STUDENTS IN HIGHER EDUCATION: A CASE STUDY OF PURBA MEDINIPUR DISTRICT	Rajashree Das Prof. Sankar Majumdar	383-389
✓ 60	EXPLORATION OF PATRIARCHY WITHIN DALIT FAMILY: A STUDY OF PALANIMUTHU SIVAKAMI'S THE TAMING OF WOMEN	Bula Rani Howlader	390-394
61	TRANSLATIONS, RE-INVENTION, AND CONSTRUCTION OF PERSIAN HISTORIES DURING THE SECOND HALF OF THE 18TH CENTURY	Mohd Tahir	395-404
62	A STUDY OF EMPLOYEE'S JOB SATISFACTION RELATED TO SELECT FIVE FACTORS OF THE ORGANIZATION	Dr. Ekta Talwar Dr. Ashish Krishna Vyas	405-411
63	THE UNIVERSAL EDUCATION FOR ALL STUDENT EMPOWERMENT AND DEVELOPMENT INCLUDING WOMEN,	Mousumi Mondal	412-416


PRINCIPAL
 Dhruva Chand Halder College
 P.O. D. Barasat, P.S.- Jaynagar
 Smith 24 Parganas, Pin- 743372

EXPLORATION OF PATRIARCHY WITHIN DALIT FAMILY: A STUDY OF
PALANIMUTHU SIVAKAMI'S *THE TAMING OF WOMEN*

Bula Rani Howlader

Assistant Professor in English, Dhruba Chand Halder College, Dakshin Barasat, South 24
Parganas, West Bengal, Pin-743372.

Abstract

In India, the power dynamics of gender was set centuries ago when different populations of distinctive cultures invaded, amalgamated and settled in India. The creation of caste means the creation of hierarchy. It became indispensable to have control over women's sexuality and infuse the concept of purity to maintain the endogamy. The birth of brahmanic patriarchy lies in that effort of maintaining the 'closed door' endogamic caste system. Following the laws of imitation given by Gabriel Tarde, the elements of culture flow from the higher to the lower status. Dalit men in their own community and family happen to be an agency of that brahmanic patriarchy they themselves are victim of. This paper attempts a study of Palanimuthu Sivakami's second novel *The Taming of women* (2012) to explore the role of Dalit men within the family as well as community more minutely vis a vis brahmanic patriarchy.

Keywords: Dalit, patriarchy, brahmanic, gender, women, family, caste, society.

Patriarchy being an analytic concept attracted different viewpoints regarding its origin and its development as a discourse. According to sociobiological critics genetic difference between men and women led to the birth of patriarchy. According to social constructionists propriety of private property led to the development of patriarchy. This view is based on the class struggle theory given by Friedrich Engels 1884 book *The Origin of the Family, Private Property and the State*. This view point of class interest is again emphasized by the historian Gerda Lerner. She also talks about sexual division of labour in the primitive age led to the institutionalized male dominance. In spite of the differences, one thing which is common in all viewpoints is that, patriarchy means male dominance or gender hierarchy. In India, the power dynamics of gender was set centuries ago when different populations of distinctive cultures invaded, amalgamated and settled in India. The creation of caste means the creation of hierarchy. It became indispensable to have control over women's sexuality and infuse the concept of purity to maintain the endogamy. The birth of brahmanic patriarchy lies in that effort of maintaining the 'closed door' endogamic caste system. Following the laws of imitation given by Gabriel Tarde, the elements of culture flow from the higher to the lower status. In the words of Ambedkar, "Endogamy or the closed-door system was a fashion in the Hindu society, and as it had originated from the Brahmin caste it was whole-heartedly imitated by all the non-Brahmin sub-divisions or classes, who, in their turn, became endogamous castes" (Ambedkar 18).

Dalit men in their own community and family happen to be an agency of that brahmanic patriarchy they themselves are victim of. This paper attempts a study of Palanimuthu Sivakami's second novel *The Taming of women* (2012) to explore the role of Dalit men within the family as well as community in the light of Dalit feminist stand point.

Coming to Dalit feminist stand point, it comes in India as a reaction to one of Gopal Guru's famous articles, "Dalit Women Talk Differently". Here he asserts the subjective position of Dalit women and the patriarchy of Dalit men in Dalit family and community. But this leads to plurality of patriarchy in Indian society. Gruru writes, "one, it is not only caste and class identity but also one's gender



Received: July 26, 2022
Revised: October 2, 2022
Accepted: December 12, 2022

*Corresponding author:
E-mail: dr_s_sahoo@yahoo.com

The pattern of coding sequences in the chloroplast genome of *Atropa belladonna* and a comparative analysis with other related genomes in the nightshade family

Satyabrata Sahoo^{1*}, Ria Rakshit²

¹Department of Physics, Dhruba Chand Halder College, Dakshin Barasat 743372, India
²Department of Botany, Baruiapur College, Baruiapur 743610, India

Atropa belladonna is a valuable medicinal plant and a commercial source of tropane alkaloids, which are frequently utilized in therapeutic practice. In this study, bioinformatic methodologies were used to examine the pattern of coding sequences and the factors that might influence codon usage bias in the chloroplast genome of *Atropa belladonna* and other nightshade genomes. The chloroplast engineering being a promising field in modern biotechnology, the characterization of chloroplast genome is very important. The results revealed that the chloroplast genomes of *Nicotiana tabacum*, *Solanum lycopersicum*, *Capsicum frutescens*, *Datura stramonium*, *Lycium barbarum*, *Solanum melongena*, and *Solanum tuberosum* exhibited comparable codon usage patterns. In these chloroplast genomes, we observed a weak codon usage bias. According to the correspondence analysis, the genesis of the codon use bias in these chloroplast genes might be explained by natural selection, directed mutational pressure, and other factors. GC12 and GC3S were shown to have no meaningful relationship. Further research revealed that natural selection primarily shaped the codon usage in *A. belladonna* and other nightshade genomes for translational efficiency. The sequencing properties of these chloroplast genomes were also investigated by investigating the occurrences of palindromes and inverted repeats, which would be useful for future research on medicinal plants.

Keywords: *Atropa belladonna*, codon bias, codon usage, chloroplast genome, medicinal plants

Introduction

Atropa belladonna is a common ingredient in homeopathy and other complementary and alternative medicine. It is a member of the nightshade family (*Solanaceae*). The plant's leaves and roots are mostly used to create medications, and it is said to be a major source of tropane alkaloids, as well as scopolamine and hyoscyamine [1]. Tropane alkaloids, which are found mostly in the *Solanaceae* family, are antimuscarinic medications that act primarily on the parasympathetic nervous system and are utilized as anticholinergic treatments in clinical practice. *A. belladonna* has a strong morphogenetic potential. It has been studied in vitro as a model system for the production of tropane alkaloids as well as the development of other alkaloids in diverse cultures [2]. Despite its reputation for being poisonous, research has revealed that the plant can be used for a variety of medicinal pur-

ISSN 2454-5694

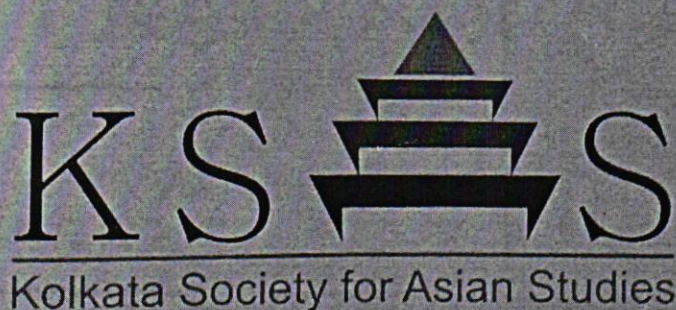
Volume 8

Number 1

June 2022

JOURNAL OF KOLKATA SOCIETY FOR ASIAN STUDIES

An International Bilingual Journal of
Social Science (UGC CARE)



Content

	Page No.
Editorial	...
Studies on Peasant Communities: Changing Time and Context	...
- <i>Satyabrata Chakrabarti</i>	...1
বাংলার কীর্তনে মৃদঙ্গ / হীৰোনের গুরুত্ব	...
- স্বরেন্দ্র হালদার এবং মহয়া মুখোপাধ্যায়	...10
Supreme Court as the Saviour of Indian Democracy: Reflections on the Kesavananda Bharati Judgment	...
- <i>Brijesh Yadav</i>	...45
Sunda through the Eyes of Foreign Travellers	...
- <i>Poornima Vithal Naik</i>	...56
Pattern and Growth of Urbanisation in India during 1991-2011: An Inter-State Analysis	...
- <i>Pritha Kundu and Prantikishna Pal</i>	...70
A Search for an Identity: A Study of the Sherpas of Sikkim	...
- <i>Rinzang Ongmu Sherpa</i>	...86
Anthropological Interface between the Hills and Plains: An understanding from Assam -Meghalaya Border Region	...
- <i>Smita Devi Bora and Dwipen Bezbaruah</i>	...100
উল্লিঙ্গ কেরী ও অবিভক্ত দিনাজপুর (১৭৪৪-১৭৯৯ খ্রিস্টাব্দ): একটি ঐতিহাসিক অনুসন্ধান	...
- স্বপন কুমার পাইন	...111
ঔপনিবেশিক বাংলায় চিকিৎসাবিদ্যায় নারীর উত্তরণ: ঊনবিংশ শতকের তিন মহিলা চিকিৎসকের অবদানের	...
জিজ্ঞাসে একটি দ্বিধা দেখা অধ্যায়	...
- নৃগর দত্ত	...122
Health and Nutritional status of working slum women residing on natural lajee of the river Hugli in Chandernagore Municipal Corporation, Hugli, West Bengal	...
- <i>Mitali Ghosh and Shovan Ghosh</i>	...132
Pharmacy and Pharmaceutical Education in British India: A Historical Perspective	...
- <i>Malika Basu (Ghosh)</i>	...152
Conscientization of Dalit Women in India: A study in Historical and Political discourse.	...
- <i>Bula Rani Hawlader</i>	...169

Conscientization of Dalit Women in India: A Study in Historical and Political Discourse

Bula Rani Howlader

Abstract

The researcher has attempted to study the conscientization of Dalit women in India's historical and political backdrop. Conscientization is a post-Marxist theoretical concept propounded by Paulo Freire, an educational theorist from Brazil. The term denotes a critical awareness or consciousness of either a person or any group/community about their real position in society. Conscientization is achievable through a process of relentless contemplation, consideration, and activities towards its realization. Dalit women's critical understanding of their social reality or conscientization does not take place in a day. Their conscientization is perceptible in the Dalit feminist movement that takes both time and tide to gain its current momentum. Being critically conscious of the social reality, Dalit feminists started to form their standpoints. There are ample testimonies in Indian history and polity to substantiate the view that Dalit women were unaware of their caste subalternity and gender subalternity but during the 1990s they started their struggle separately and independently to establish their rights.

Key Words: *Conscientization, Dalit, women, history, politics, society, movement, feminism*

1. Introduction:

The researcher has attempted to study the conscientization of Dalit women in India's historical and political backdrop. Conscientization is a post-Marxist theoretical concept propounded by Paulo Freire, an educational theorist from Brazil. The term denotes a critical awareness or consciousness of either a person or any group/community about their real position in society. Conscientization is achievable through a process of relentless contemplation, consideration, and activities towards its realization. Dalit women's critical understanding of their social reality or conscientization does not take place in a day. Their conscientization is perceptible in Dalit feminist movement that takes both time and tide to gain its current momentum. Being critically conscious of the social reality, Dalit

[Signature]
PRINCIPAL
Dhruba Chand Halder College
P.O.- D. Barasat, P.S.- Jaynagar
South 24 Parganas, Pin- 743372



Peer Reviewed Refereed and
UGC Listed Journal
(Journal No. 40776)

ISSN 2277 - 5730

**AN INTERNATIONAL MULTIDISCIPLINARY
QUARTERLY RESEARCH JOURNAL**

AJANTA

**Volume-VII, Issue-IV
October - December - 2018
English Part - XIV / XV**

IMPACT FACTOR / INDEXING

2018 - 5.505

www.sjifactor.com

Ajanta Prakashan

PRINCIPAL

Dr. Ruba Chand Halder
Dr. Ruba Chand Halder College
P.O. - D. Barasat, P.S. - Jaynagar
South 24 Parganas, Pin- 743372