

**List of Seminars/ Workshops/ Talks organized by Seminar Committee in Collaboration with Different Departments and Committees 2014-2019**

Sl No.	Date	Topic	Resource person (if any)/ any other relevant information
1	13.2.19	Talk on Sino Indian Relationship ( by Political Science Department)	Prof Ishani Naskar, Profors, Department of pol Science, Rabindra Bharati Unversity
2	8.2.19	Workshop on Mathematics for All sponsored by with WB State Council of Science and Technology in collaboration with Netaji Subhas Engineering College ( By Mathematics Department)	Dr. Supriya Mukherjee, Gurudas College Dr. Debashish Burman, Netaji Sunhas Engineering College Debprasead Majumder, Narkeldanga High School For Boys
3	22.2.19	How Long to Stay? Winter Foraging Decision of a Mountan Unregulate (By Zoology Department)	Mr. Abhirup Khara, Msc Research Affiliate at NCF
4	27.09.18	Lecture on “Greek Tragedy”.	Prof. Mousumi Mandal (Presidency University)
5.	12.10.2018	Lecture on “Immune surveillance in cancer: Therapeutic implications” ( By Zoology Department)	Prof, Ellora Sen, Scientist VI & Professor, National Brain Research Centre, Manesar, 122 052, Haryana, India
6	12.10.2018	Pubertal Metabolic and Endocrine changes: Path to Adolescent Polycystic Ovary Syndrome and unexplained pregnancy	Dr. Pratip Chakraborty
7.	21.02.19	Lecture on “Staying On: Shakespeare and the Legacies of Theatre in the East (1930-1980). ( By English Department)	Dr. Priyanka Basu (British Library, London/School of Oriental and African Studies)
8.	7.5.19	Practical Significance of Sociology (By Sociology Department)	Prof Angana Dutta Assistant Professor, Jogesh Chandra College
9.	18.3.19	Advaita Vdanta in Everyday Life Gita In our Every day Life (By Philosophy Department and Sanskrit Department)	Dr. Pritam Ghoshal, JU Taraknath Adhikary, Rabindra Bharati University
10.	1.4.19	Lecture on “Gandhi’s notion of education: Its contemporary relevance”	Prof. Suranjan Das (Vice-Chancellor, Jadavpur University)
11	5.10.18	Talk on International News Flow: Media And Culture (Department of Journalism and Mass	Sri Rajesh Das, Burdwan University

Sl No.	Date	Topic	Resource person (if any)/ any other relevant information
		Communication)	
12.	11.5.19	Workshop on Anti Ragging ( With Anti Ragging Cell)	Prof Sudeshna Chatterjee Prof A K Maity
13	29.4.19	Lecture on ' <b>THE BASIC OF MACHINE LEARNING</b> ' Department of Computer Science <b>AN OVERVIEW OF ANALYTICAL PROCESSING</b>	1. by <b>PROF SAPTORSI GOSWAMI</b> from University of Calcutta  2. <b>PROF. DR. SOUMYA SEN</b> from Calcutta University
14	15.5.2019	Thalassemia awareness and detection camp	Calcutta school of medicines and rotary club.

### **Seminars/Workshops/Talks of 2017-18**

1. Dept. of Political Science organized a talk on 'India's Neighbourhood Policy: Addressing the Key Issues through the Mechanism of the SAARC' on 18<sup>th</sup> September, 2017 and the speaker was Prof. Bishnupriya Roy Chowdhury of Behala College.
2. Dept. of Political Science organized a talk on 'Changing Contours of Indian Foreign Policy' on 27<sup>th</sup> March, 2018 and the speaker was Dr. Naved Jamal of the Dept. of Political Science, JamiaMillia University, New Delhi.
3. .Dr. DebiprosadDuari, Director, Research & Academics, M.P. Birla Institute of Fundamental Research delivered the 10<sup>th</sup>Gurudas Banerjee Memorial Lecture on 24<sup>th</sup> November, 2017. The topic was 'A New View of the Solar System'.
4. A Seminar was organized by the Dept. of Computer Science on 8<sup>th</sup> December, 2017. The speaker was Dr. SoumyaSen, Faculty of A.K. Choudhury School of Information Technology of University of Calcutta and the topic was 'Recent Trends in Data Analysis'.
5. Dept. of Mathematics organized one day seminar on 'Recent trends in mathematics' on 11<sup>th</sup> September, 2017. The speakers were Dr. Arup Sengupta on 'Some Aspects of

Number Theory' and Dr. Banamali Roy on 'Introduction to Fractional Differential Equation'.

6. Workshop organized by the Dept. of Bengali and conducted by 'NayeNatua' on 1<sup>st</sup> February, 2018.
7. 2<sup>nd</sup> SadhanRakshit Memorial Lecture was organized by the School of Social Sciences, Gurudas College on 22<sup>nd</sup> December, 2017. The topic was 'Demonetization: Why Black Money is not in Cash?' and the speaker was Prof. Surajit Das, Asstt. Professor, CESP, Jawaharlal Nehru University, New Delhi

	<b>2016-17</b>	
Seminar	Date	Speaker
Dr. Soumendra Nath Ghosh, Senior Research Officer, WB Bio-Diversity Board	24.3.17	Significance of Bio-Diversity
Dr. Anirban Roy ,Senior Research Officer, WB Bio-Diversity Board	24.3.17	Conservation of Bio-Diversity
UGC Sponsored Seminar	9.12.2016,& 10.12.2016	Chemistry in Human Life-Current Aspects
UGC Sponsored Seminar	17.2.2017 & 18.2.2017	Recent Advances in Biological Sciences
UGC sponsored National	12.11. 2016	Differential Equations and Lie Groups
UGC sponsored State Level	2.12.16	Depth of Classicality in Sanskrit
Dr. Kanad Das	11.11.16	Conservation of Wild Himalayan Mushroom
Dr. Mili Sarkar	11.11.16	Nucleophilic Substitution at a saturated Carbon

#### **List of Seminars/ Workshops and Talks for 2015-16**

- On 11<sup>th</sup> September, 2015 a seminar on ‘Chemistry in Undergraduate Level’ was organized. The Resource persons were
  1. Prof. Rana Sen of Scottish Church College.
  2. Prof. Priyatosh Dutta of Anand Mohon College.
- Maternal Effects in Flowering Plants by Professor Ripan Chandra Das, Gurudas College.
- Talk on Gender Equality by Dr. Sarmistha Gandaray, Gurudas College

#### **List of Seminars/ Workshops for 2014-15**

Gurudas Banerjee Memorial Lecture delivered by Prof. Nrisinha Prasad Bhadhuri on “Mahabahrata and Orality”, on 14.11.14

1. Talks on “ Hopes and Fears: India after the Polls 2014”, By Prof. Udayan Bandopadhyay, 26.8.14
2. Talk on “ Combating Cancer- Food Habits” by Dr. NK Nath, 21.11.14
3. Seminar on” Education in West Bengal: Challenges and opportunitiuies”, By Kumar Rana on 12.12.14
4. Talk on “ importance of International Womens’ Day” By Smt. Alekhya Roy Ghatak on 9.3.14
5. Talk on “ Empowering Women, empowering humanity”, by Dr. Gopa Mukherjee on 14.3.15
6. Seminar on Gender, Politics and Literature: A Multidimensional Approach” in collaboration with Womens’ Stdy Centre , Rabindra Bharati University on 2.4.15

#### **Seminar on Library Day**

#### **LIBRARY DAY, 2014-15**

Date: 3<sup>rd</sup> February, 2015

Topic: ‘Rabindranath O Granthagar’ [Rabindranath & Library]

Speaker: Prof. Ramkrishna Saha, Former Chief Librarian, Jadavpur University



## **LIBRARY DAY, 2015-16**

Date: 19<sup>th</sup> January, 2016

Topic: 'Granthagar Theke Lekshyagare Bibartan' [From Library to Archive]

Speaker: Mr. K.K. Banerjee, Former Director General, National Library & Raja Rammohun Roy Library Foundation, and Director, Archives, Prasar Bharati (Eastern & North-Eastern Zone)



### **LIBRARY DAY, 2016-17**

Date: 24<sup>th</sup> March, 2017

Topic: 'Dawn Society O Sir Gurudas Bandyopadhyay' [Dawn Society and Sir Gooroodass Banerjee]

Speaker: Prof. Madhabendranath Mitra, Former Professor, Jadavpur University & Editor, The Dawn (Reprinted Edition)



## **LIBRARY DAY, 2017-18**

Date: 8<sup>th</sup> May, 2018

Topic: 'Bharatbarsher Bartaman Granthagar Byabastha' [Library System of Present India]

Speaker: Dr. Arun Kumar Chakraborty, Director General, National Library and Raja Rammohun Roy Library Foundation & Mission Director, National Mission on Librares



## **LIBRARY DAY, 2018-19**

Date: 24<sup>th</sup> June, 2019

Topic: 'Banglay Jibanigrantha' [Biographical Literature in Bengali]

Speaker: Dr. Binod Bihari Das, Former Chief Librarian, Jadavpur University & Advisor, Library, Heritage Institute of Technology, Kolkata



Glimpses of various seminars



10 th Gurudas Banerjee memorial lecture

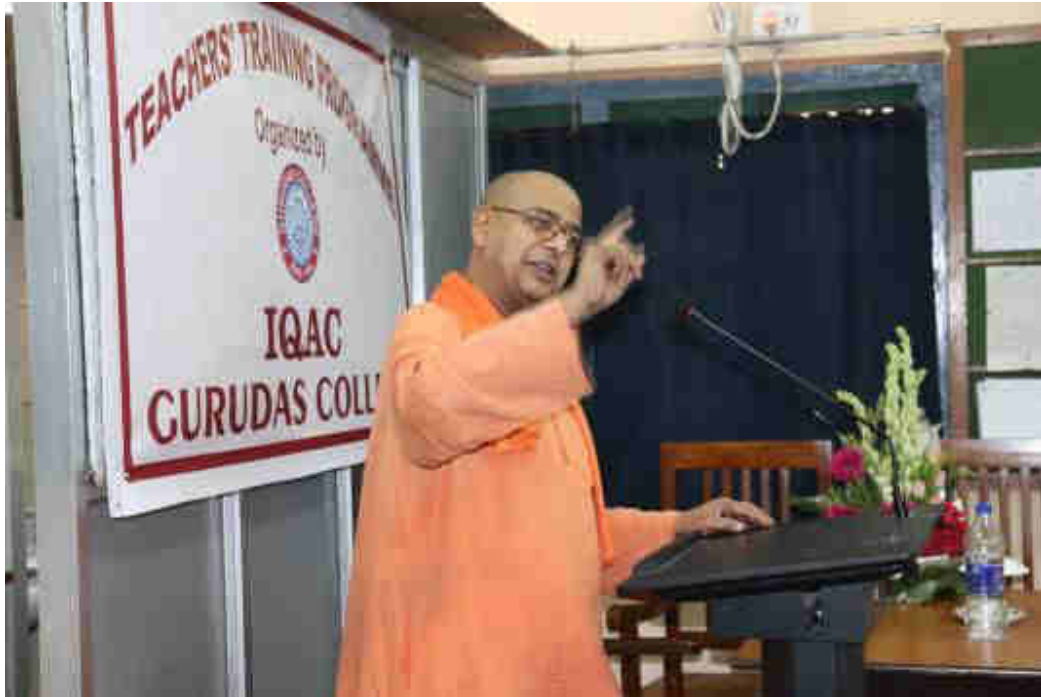


11<sup>th</sup> Gurudas Banerjee memorial lecture



Basic photography course 2019





Teachers Training programme 2019





Workshop on anti-ragging 2019



Thalassemia awareness programme 2019



Education dept. seminar 2019



Research cell seminar 2019



Statistics dept. seminar on Research Methodology



Vigilance awareness 2016



Workshop of Bengali dept. on 01.02.2018



Dept. of sociology



Dept of zoology ↑



**Dept. of political science**





Dept. of political science

Report:

Research Cell workshop:

A one day workshop on Intellectual Property Rights was held on 22.06.2019 at 12 noon organised by Gurudas College Research Cell in collaboration with IQAC. The resource person was Dr. Susil Kumar Mitra, M.Sc., Ph.D, FIC, FAScT, LL.B, presently Professor & Director of Centre for Intellectual Property Rights(CIPR), Adamas University, Kolkata.

He told us about trademarks, copyrights and patents. He gave us a clear view about the rights which a person or a company uses exclusively for its own plans, ideas without the worry of competition at least for a specific period of time. The workshop proved very useful for us.





## Field – Trip (last five years) :

### 1. A JOURNEY TO THE CHURCHes(28.11.2014)

#### (a) Bandel Church



Bandel Church is one of the oldest churches in India. The word 'Bandel' was derived from the Persian word 'Bandar'(port). It is commonly known as **BASILICA OF THE HOLY ROSARY**. It is situated in Bandel, Hooghly District, in West Bengal. It was built in the year 1599. It stands as a memorial of the Portuguese settlement in Bengal. In the middle of the 16th century, the Portuguese began to use Bandel as a port. At first they had started their business in Saptagram, along the Saraswati River. However, the water of the Saraswati River gradually started to reduce, and the river became dry. As a result, the Portuguese were continuously facing losses in their business. In 1571 they were given permission by Mughal Emperor Akbar to build a town in Hooghly. After that they began to settle down in and around the area. The Portuguese priests played the chief role in spreading Christianity in Bengal. In 1598, Catholics numbered around five thousand in Hooghly, which included both native and mixed races. In 1579 the Portuguese built a port on the banks of the Hooghly and enlisted the services of a band of **AUGUSTINIAN FRIARS**, which was the largest religious body in Goa. In the following year captain **PEDRO TAVARES** (hailed as Partab Bar in the *Akbarnama*) obtained full permission from Mughal Emperor Akbar to preach Catholicism and construct churches. Thus, the Bandel Church was constructed. This first church was burnt down during the sack of Hooghly by the Moors in 1632. A new church was built by GOMES DE SOTO in 1660. The old church can still be seen on the eastern gate of the monastery.

#### (b) THE ARMENIAN CHURCH



The Armenian church of ST. JOHN THE BAPTIST situated at CHINSURAH, incidentally is also the second oldest Christian church in West Bengal and the oldest Armenian church in India. Armenians settled in CHINSURAH in 1645, after the Dutch, who formed their colony in 1625. The beautiful church was constructed between 1695 and 1697 by KHOJAH JOHANNES MARGER. It was dedicated to ST. JHON THE BAPTIST. The church is well preserved due to its proximity to Kolkata and the relentless efforts of the care committee of the Armenian Church. Sadly, at present no Armenians live there. The church does not open every day, but only once a year on the Sunday nearest to the fest day of ST.JHON THE BAPTIST (usually 13 -14 January). Many pilgrims from Calcutta, especially students, visit theChurch.Many cemeteries are present at the church compound. KHOJA MARGAR'S cemetery is the most notable amongthem.

**(c) THE SACRED HEART CHURCH**



The church is situated near the Chandannagar strand. It was designed by French architect JACQUES DUCHATZ. The Church was inaugurated by Paul Goethal on 27 January,1884. The church is a classic example of French architecture and it is a place worth visiting.

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## 2. An overview of Cotton Textile Industry at Dhaniakhali Block of Hooghly District; based on extensive field work



Prepared by, Department of Economics, Gurudas College, Kolkata , No. of Students: 24, Session: 2014-15

### Abstract

West Bengal had a great heritage of cotton textile industry from the very ancient period of time. This work was traditionally done by rural artisans, they reflected their hope, aspiration, and their life style through their design , the brilliant mix of colours which is admired all over the world. Dhaniakhali , one of the eighteen blocks of Hooghly district which is famous centre of handloom industry in the map of West Bengal. It is very difficult to find out the exact time period of origin of this industry but in the year 1933-1938 “Shusi” and “Shisankar” a kind of “Chadar” which was made from Resham Silk produced from Dhaniakhali. Then Dhotis and Sarees were produced by “Charkha”. So Dhaniakhali had a very old and strong cultural heritage. This mechanism is done by a specific caste named “Tantubay”, a large number of people belonging to this caste live in the surrounding villages and very efficiently conducting this age old heritage craft. But it is very unfortunate that this traditional industry is under threat of extinction. Therefore the main aim of our study is to discuss various aspects related to the growth of this industry and at the same time highlighting the different problems and suggest different strategies for the survival of the industry.

**Key Words:** Dhaniakhali tant, Handloom, Power loom, Weavers, Innovation, and Online sale.

### Introduction

The Textile industry in India traditionally, after agriculture, is the only industry that has generated huge employment for both skilled and unskilled labour in textiles. The textile industry continues to be the second largest employment generating sector in India. It offers direct employment to over 35 million in the country. The archaeological surveys and studies have found that the people of Harrapan civilization knew weaving and the spinning of cotton four thousand years ago. Therefore the products generated by the cotton textile industry was highly famous all over the world which was mainly done by the rural people. But this industry faced the problem in the colonial period. During the late 17th and 18th century at the time of Industrial Revolution in Europe, India became the chief source of raw material and at the same time market place for the power loom generated products of England. Thus the colonial ruler ruined age old traditional process of spinning of yarn and weaving cloths. But this industry rejuvenated at the time of Swadeshi Movement which was headed by Aurobindo Ghosh.

### Study Area

Hooghly district is located in the southern part of West Bengal and the locational extent of the district is 22.8956° N, 88.4025° E. It covers an area of 3149 sq. km. This district consists of four Subdivisions namely - Chinsurah, Arambag, Serampore and Chadannagar. The study is conducted mainly in the surrounding villages of Dhaniakhali Block, this block is under Chinsurah Subdivision and lying in the north western part of the district.

### Objectives Of The Study

Keeping in view the above problems, this study is proposed to carry on with the following objectives.

- To evaluate the progress of Handloom Industry in Dhaniakhali block.
- To analyse the socio-economic conditions of the sample handloom weavers.
- To assess the adoption of technology and production of Handloom weaving.
- To observe the marketing facilities of handloom fabrics in the study area.
- To study the problems of Handloom weavers in the study area.
- To analyse the future prospects of the industry in the study area.
- To make strategies for survival of handloom industry of Dhaniakhali block.

### **Database And Methodology**

The paper deals with both primary and secondary data. Primary data have been collected by surveying concerned population of Dhaniakhali and surrounding villages. The secondary data have been collected from various co-operative societies of Dhaniakhali block namely- i) Somaspur Union Co-operative weavers Society Limited, ii) Dhaniakhali Union Tant Shilpi Samabay Samiti Limited, iii) Gurap Tant Samabay Samiti Limited, iv) Parambua Sahabazar Weavers Society Limited. The secondary data have also been collected from different data sources which are available in internet. To enrich the study various articles, journals, books on handloom industry, e-sources were consulted. Then the relevant data and information have been organised, classified, tabulated, analysed by statistical methods and represented through suitable cartographic techniques.

### **Historical Background Of Handloom Industry In Dhaniakhali**

The exact time of origin of this handloom manufacturing centre is very difficult to find out because of scarcity of reliable data, but it can be said that in the year of 1933-38 some clothes (a kind of "Chadar") were being produced using silk as a raw material, this "Shushi" Chadar was so fine in texture that it was compared to the famous "Dhakai Maslin" silk. Then Dhosis and Saries were being produced using both the cotton and silk yarn, this cotton yarn was mainly imported from abroad. The products were sold abroad in some quantities to the far-off countries by means of European firms like Walker Gouard, Shaw Wallace etc. There were also some percentage of middle man who linked the local artisans to Calcutta firm. But after the second world war due to various political issues the Dhaniakhali handloom industry faced the problem of raw material. In this period the "Somaspur Union Co-operative weavers Society Limited" and also "Dhaniakhali Union Tant Shilpi Smabay Samiti Limited" were came into existence in the year of 1946 to supply quality materials to the weavers. The cotton textile industry of Dhaniakhali was efficiently conducted by the rural artisans lived in the surrounding villages like- Somaspur, Harpur, Brindabanpur, Dhaniakhali, Talbona, Konan, Mahamaya, Mirjanagar etc. This was purely a cast based profession (Tantubay in Bengal).

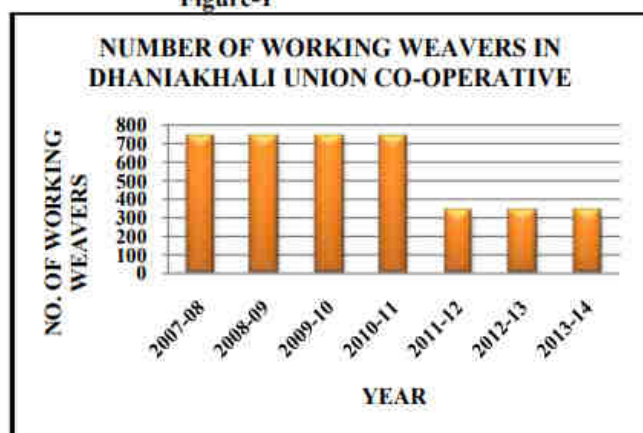
At the present time there are four working co-operatives namely- i) Somaspur Union Co-operative weavers Society Limited, ii) Dhaniakhali Union Tant Shilpi Smabay Samiti Limited, iii) Gurap Tant Samabay Samiti Limited, iv) Parambua Sahabazar Weavers Society Limited. These co-operatives provide yarn and design to the weavers and paid them accordingly. All other marketing systems are conducted by the co-operatives. In the previous year the brand Dhaniakhali Dhosi and Saries were sold in Farasdanga (Chandannagar), Mangala Hat of Howrah, Bardhaman, Asansole etc. Then a district based Government organisation named "Hooghly Artisan" associated with Dhaniakhali handloom industry for marketing purpose, later at the State level "Tantuj", "Manjusha", "Bangashree" and at the national level "Handloom House" also associated with this age old handloom centre.

### **Present Condition Of The Handloom Industry Of Dhaniakhali Block**

The handloom sector plays an important role in the economic development of the rural poor in the state. It contributes significantly by generating more employment opportunities and providing bread to the rural poor. But it is very unfortunate that despite of various Governmental scheme this industry suffers from various aspects. "Dhaniakhali tant" is one of the most famous name in the handloom field of West Bengal and due to its coarse texture, but the surprising fact is that though there are enough demand the productivity and also the number of weavers are decreasing day by day.

According to Tarun Var, (surveyed weaver of Dhaniakhali) 40- 50 years ago a weaver earned double than a teacher or govt. employee but the situation has completely changed at the present time. So the new generation are totally unwilling to accept weaving as a profession, 90% of the working weavers are at the age of 45 or more which is one of the main cause for low productivity.

**Figure-1**



Source: Handloom Development Office, Chinsurah.

**Table-1**

Year	No. of working weavers
2007-08	733
2008-09	733
2009-10	736
2010-11	735
2011-12	333
2012-13	333
2013-14	333

It can be said from fig.-1 that there was a rapid decrease of working weaver in 2011-2012 financial year. According to the weavers they realised that it is more profitable to join in “Hundred days work scheme” under MGNREGA rather than weaving clothes. To view the present condition some weavers suspect that if some immediate measures are not be taken then it would be very difficult to save the handloom industry of Dhaniakhali from extinction.

**Problem Faced By Dhaniakhali Handloom Industry**

After conduction door to door survey of the weavers and also after visiting the four working cooperatives of Dhaniakhali Block, it can be said that now a days this industry becomes a decaying industry as it faced several problems related production, marketing and many more. The main problem of this industry are as follows:

- I. The main problem of Dhaniakhali cotton textile industry is low productivity, the number of weavers are reduced day by day. The next generation are not willing to accept weaving as a profession due to the uncertainty of the industry. It can be said from figure.-2 that the overall production trend of these four co-operatives is lowering down gradually.
- II. This cotton textile industry specially the weavers are highly depended on the female member of their family, because the weavers can not use the yarn given from the co-operatives or the Mahajans directly as this raw yarn need to be processed through different steps which are done only by the female members of the family. But the tragic story is that this female members of weavers family are completely deprived from any kind of wage form any sources.

**Table 2: Production in Meter**

YEAR	PRODUCTION IN METER			
	SOMASPUR UNION	DHANIAKHLAI UNION	PARAMBUA-SAHABAZAR	GURAP TANTUBAY
2007-08	149124	150091.05	16219.5	59560
2008-09	136814	165634	19019	89854
2009-10	136438.35	151646	9168.5	83204.5
2010-11	124402	146861	6446	79604.5
2011-12	114143.45	142396	6286.5	71071.5
2012-13	111706	133729	7854	70326.5
2013-14	110329.5	129153	6704.5	78760

- III. This handloom industry is a very laborious industry. After getting the raw yarn the weavers have to follow several process such as – Noli Bata, Sana Gantha, Tant Fitting, Palui Anta etc. sometimes outsiders or

professional labours are appointed to conduct these process. Not only that it takes at least 20 to 25 days before the actual weaving is started. But neither the co-operatives nor the Mahajan take this cost into account.

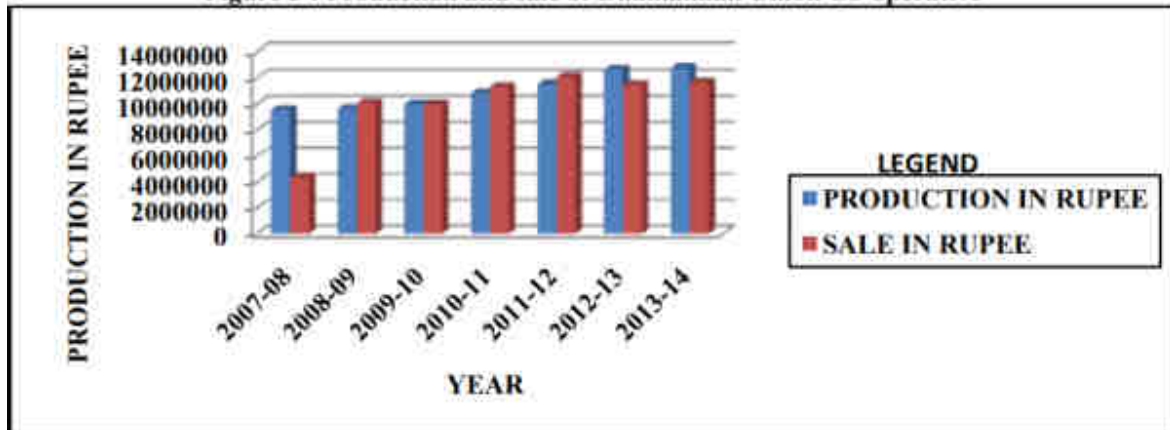
IV. From the production performance of the societies, it is clear that they have no self-sufficiency in respect of capital. They are dependent on government loan for their production. Their production status is almost in stagnant state.

V. The co-operative societies are indifferent in enlarging their marketing sphere. They are mainly dependent on retail sale. They have no sale outlet in big cities or other places, even after surveying in the shops it is found that there are no saling outlet in the Dhaniakhali itself where only the Brand Dhaniakhali Sarees are sold. They join the government expo, melas, and exhibitions as they gain some benefit from these. They have no activity to boost up the marketing scope. For example the Gurap Tantubay Samabay Samity limited has joined Suri Chaitra mela and Tant Bastra Pradarshani mela only, in 2008. Huge stock piles are found in the stores of the societies.

**Table 3: Production and sale of Dhaniakhali Union Co-operative.**

YEAR	PRODUCTION IN RUPEE	SALE IN RUPEE
2007-08	9557225	4343607
2008-09	9630140	10066014
2009-10	9991500	9998711
2010-11	10845476	11319766
2011-12	11547875	12105070
2012-13	12658980	11475860
2013-14	12799260	11693350

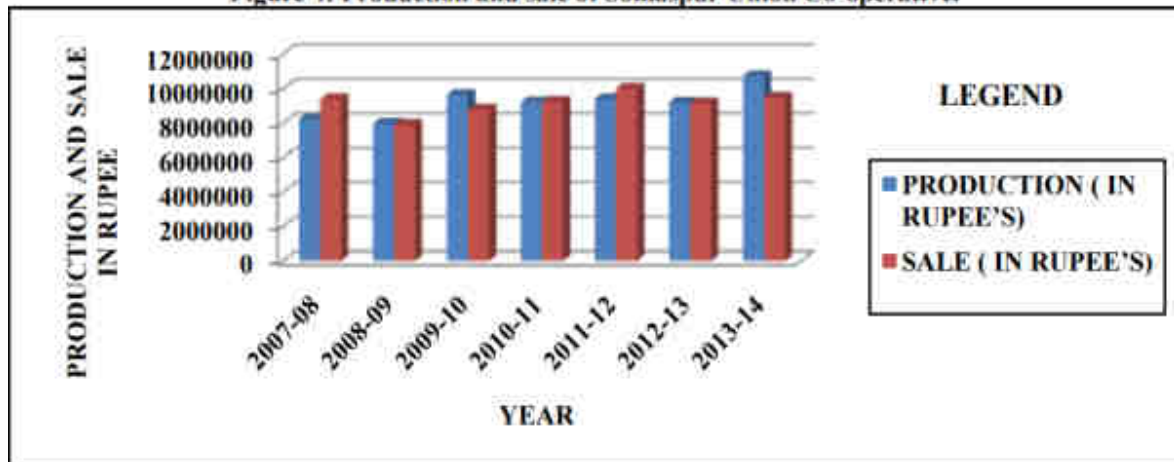
**Figure 3 : Production and sale of Dhaniakhali Union Co-operative**



**Table 4: Production and sale of Somaspur Union Co-operative.**

YEAR	PRODUCTION ( IN RUPEE'S)	SALE ( IN RUPEE'S)
2007-08	8249006	9388524.25
2008-09	7980153	7900392
2009-10	9644226	8778048
2010-11	9228506	9236337
2011-12	9409850	1000755
2012-13	9191621	9167660
2013-14	10721826	9497079

Figure 4: Production and sale of Somaspur Union Co-operative.



- VI. Dhaniakhali sarees are famous for its coarse texture which are mainly used by the housewives for daily use purpose, so the price rate of this sarees are low enough but as the taste and demand changed and various types of clothes (salwar, kurta, designer ware etc.) were introduced in the market naturally the demand of this age old handloom is reduced.
- VII. There is no innovation of designs of these handloom products. They are practicing the traditional designs from the beginning. These societies have no CAD trained designers. They provide the designs from their own perception.
- VIII. The “Brand Dhaniakhali Sarees” are identified by a particular design name “Khejur Chari”, but in the name of Dhaniakhali Sarees a group of greedy merchants produce low quality sarees from other handloom centres which not only affect the reputation of this centre but also create tough competition in the market. The government and also the co-operatives are indifferent to stop these parallel activities.
- IX. Sometimes the Government Organisations create economic crisis as they do not pay the money after purchasing the products from the co-operatives.

#### Prospect Of Dhaniakhali Cotton Textile Industry

Though the Dhaniakhali Handloom industry is suffered from various problems but if this industry can overcome these problems then there are many scope to expand the industry and for this following measures should be adopted,

- The government and the co-operatives also should take very strict measure to stop those parallel activities which affect the reputation of Dhaniakhali sarees.
- Societies should implement proper plan, policies for the weavers so that next generation of the weavers are attracted to accept weaving as profession.
- The present day is called the day of internet, if the government and the society take proper measure to sale their products through online retail shops, then they can reach to a vast population and this way the industry can enlarge their marketing sphere.
- The co-operative should try to establish their own centres not only in the big cities but the Dhaniakhali also.
- The government should take initiative to protect the traditional industry from extinction by giving training the weaver about new technology, arranging various melas exhibition so that the weaver can reach the population.
- The co-operative society should restructure their wage system and take the female members of the weaver’s family into consideration to boost up the industry.
- Contemporary designs, fabrics should be introduced instead of traditional design. Introduction of new types of dressing materials, except sarees, is also prescribed.

## Conclusion

Cotton handloom has its own demand because of the beautiful designs, quality, fine texture, exact size and attractive fret works of its products. These qualities of handloom products are not accessed in the power loom mechanism. On behalf of the department of Economics, Gurudas College Kolkata, our study on 28<sup>th</sup> November, 2014 was mainly based on extensive field work, though handloom weaving is has many strength and can be competitive under specific condition but the seed of crisis is inherent in the sector. This can be traced to three major factors – the poor performance of the co-operative sector and the poor economic condition of the weaver. But the ray of hope is that both the Central Government and the State Government are quite active to rejuvenate this sector, providing number of schemes for handloom production and marketing. The Central Government through Ministry of Textiles, Office of the Development Commissioner (Handloom) implement numbers of schemes such as Integrated Handloom Development Scheme, Hank Yarn Subsidy Scheme, marketing and design support, Health and life insurance scheme etc. The West Bengal Government also intend to highlight the handloom through Biwsa Bangla Project and also try to make Dhaniakhali as a Handloom Hub. The handloom products of Dhaniakhali have large demand as well as marketing scope because of its widespread name and fame and strong culture heritage. We hope that this handloom centre will be able to elevate its present stagnant condition by overcoming its present problems and will revive its past glory.

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## 3. Bishnupur

Bishnupur, a municipality of Bankura district in West Bengal, India is famous for its terracotta temples, Malla Shree Krishna Raslilla and the Baluchari sarees. Bishnupur was ruled under the Gupta period by local Hindu kings who paid tribute to Samudra Gupta. The land is also called Mallabhum after the Malla rulers of this place. The Malla rulers were Vaishnavites and built the famous terracotta temples during the 17th and 18th century at this place. The legends of Bipodtarini Devi are associated with Malla Kings of Bishnupur. For almost a thousand years it was the capital of the Malla kings of Mallabhum. The patronage of Malla king Veer Hambir and his successors Raja Raghunath Singha Dev and Bir Singha Dev made Bishnupur one of the principal centres of culture in Bengal. Most of the exquisite terracotta temples for which town is justly famous were built during this period. Apart from the unique architecture of the period, Bishnupur is also famous for its terracotta craft and its own Baluchari sarees made of tussar silk. The "Dashavatar Taas" of Bishnupur (a kind of playing cards depicting ten avatars of Hindu god Vishnu, idrawn by hand) is a rare artistic piece not to be found anywhere else in India. Royal patronage also gave rise to Bishnupur Gharana (school) of Hindustani classical music in late 18th-century and the Bishnupur school of painting. The Bishnupur Gharana, was established in 1370 A.D and flourished under the patronage of the Malla kings. The school hit its peak in the 16th and 17th centuries. This style of music is rooted in the Dhrupad style and is still being kept alive in local academies of music, Pakhwaj, Sitar, Esraj comprise the main instruments. Bengali Ragpradhan is one of the Classical items of this gharana. Since 1997, the temples of Bishnupur is on UNESCO World Heritage Site's Tentative list. The terracotta pottery, artifacts and even jewelry made in this very traditional material are famous. The most famous of the terracotta products are the hand made beautiful jars, disks and the more famous of them are the terracotta horses, elephants, Ganesha, and Nataraj. The terracotta horses that were once used more often for religious purposes, now they are used as a decorative item here. This art originated in Bankura district of West Bengal. These horses are known for their symmetric shape and rounded curves given to their body

**Temples and other places** :There are many such temples which stand testimony to the exquisite craftsmanship of the artisans of the region. The temples were crafted from the local laterite and brick. The temples are covered with terracota tiles depicting scenes from the epic Mahabharata. The temples are located in Bishnupur and across many other small villages in the Bankura district.

**Rasmancha** It is the the oldest brick temple, built by King Bir Hambir. The temple has an unusual elongated pyramidal tower, surrounded by hut-shaped turrets, which were very typical of Bengali roof structures of the time.

**Jor-Bangla temple** It was built by King Raghunath Singha Dev II. The ornate terracotta carvings are set off by the roof in the classic *chala* style of Bengal architecture.

**Panchratna temple** The temple was built by King Raghunath Singha. It stands on a low square plinth and consists of an ambulatory pathway with a porch opened by three arches on the four sides of the temple. The central shikhara is octagonal, while the rest four are square. The walls are richly decorated with terracotta carvings featuring aspects of Lord Krishna's life.

**Madan Mohan temple** King Durjana Singh Deva built the temple in the *ekaratna* style, a square flat-roofed building with carved cornices, surmounted by a pinnacle. Impressive carvings on the walls depict scenes from the Ramayana, Mahabharata and the Puranas.

**Lalji temple** The temple was built by Bir Singha II in *ekaranta* style on a square raised plinth, consisting of ornamental stucco decorations on low relief carvings.

**Radhe Shyam temple** It was built by Chaitanya Singha in *ekaratna* style in a square plan, consisting of a dome-shaped shikhara and stucco motifs depicting floral.

**Nandalal temple** It has a square ground plan and a single tower resting on a curved roof. Very little motif work can be seen on the lower part of the temple.

**Kalachand temple** Raghunath Singha I built the temple in brick in *ekaratna* style

**Radhagobinda temple** Raghunath Singha I built the temple in brick.

**Madangopal temple** A Pancharatna mandir built by Shiromani Devi, Queen of Veer Singha II.

**Murlimohan temple** It was built by Shiromani Devi, the queen of Veer Singha II. It is an *ekratna* temple with floral designs and stucco works.

**Radhagobinda temple** It was built by Krishna Singh, son of Gopal Singha in *ekratna* style with laterite.

**Radhamadhab temple** The temple was built by the daughter-in-law of Mallaraj Gopal Singh, Churamoni Devi in *ekratna* style with brick and has bas relief carvings.

**Malleswar temple** The *ekaratna* temple of laterite stone was built by Mallaraj Bir Singh.

**Mrinmoyee temple** It was originally built by Jagat Malla in 997 CE. The Durga puja takes place for 15 days and all the other temples in Bishnupur does not start the puja until the cannon has been fired from the temple.



**Radhabinod temple** It was built by the queen of Raghunath Singh in *atchala* style.

**Jormandir** A complex of three temples known as the Jor Mandir. These temples were built by Malla King Krishna Singh in 1726.

Rasmancha



The wonderful *Raschakra* of the Syamaraya temple or Pancharatna Temple, established in 1643. There is no better terracotta work than this in Bengal.



Jor-Bangla temple



Nandalal temple



Garh Darwaja (Small Gateway of Bishnupur), Bankura, West Bengal, India



Hawa mahal



Madanmohan Temple



Lalit temple



Kalachand Temple



Radhagobinda temple

**Department of History (History Hons, Third year 2013-14)**

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#### 4. BUXA FORT



**Buxa Fort is located at an altitude of 867 metres (2,844 ft) in the Buxa Tiger Reserve, Alipurduar district, West Bengal.**

The Bhutan King used the fort to protect the portion of famous SilkRoute connecting Tibet with India, via Bhutan.

The British on invitation of the Cooch King intervened and captured the fort which was formally handed over to the British on November 11, 1865 as part of Treaty of Sinchula. The British reconstructed the fort from its bamboo wood structure to stone structure. The fort was to later be used as a high security prison and detention camp in the 1930s; it was the most notorious and unreachable prison in India after the Cellular Jail in Andaman.

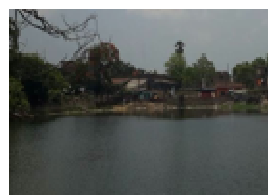
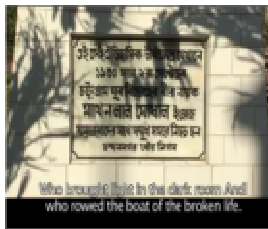
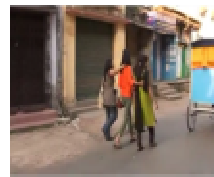
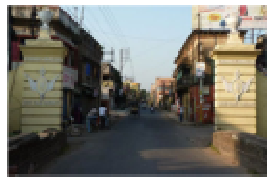
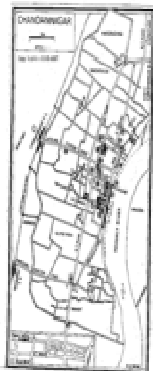
In 1959, during the Chinese invasion of Tibet, a number of Tibetan monks fled to India and started to live in the abandoned fort. Nationalist revolutionaries belonging to the Anushilan Samiti and Yugantar group such as Krishnapada Chakraborty were imprisoned there in the 1930s. Netaji Subhas Chandra was held captive in the Buxa Fort. Forward Bloc leader and ex-Law Minister of West Bengal, Amar Prasad Chakraborty, was also imprisoned at Buxa Fort in 1943. Besides, some communist revolutionaries and intellectuals like the poet Subhash Mukhopadhyay were captivated here in the 1950s.



*When you go home, tell them of us and say, for your tomorrow, we gave our today” Epitaph written on the Kohima War Memorial in Nagaland.*

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## 5. Chandannagar



- Nitesh Kalita
  - Saikat Nayak
  - Tanusree Kalita
  - Divyanshu Kalita
  - Nitesh Kalita
- History of Chandannagar, 2013-14
- Chandannagar, a French colony in India, was established in 1674 and was a major port for the French East India Company. It was a significant center of trade and commerce in the region.

(1) Map, (2) G.T.Road, (3) The British Warships, (4) Jyotir More, Gandolpara, (5) Durgacharan Raksha Ghat, (6) The Paris Treaty in 1763, (7) Freedom fighters, (8)Sahid Makhanlal, (9) Memoir, (10) Mouser Gun, (11) Chandannagar College, (12) Clock Tower, (13) Chandannagar Court, (14) Laldighi, (15) French Cemetery.

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## 6. DIAMOND TRIANGLE OF ODISHA- RATNAGIRI, UDAYGIRI LALITGIRI

While there are several ancient temples of Bhubaneswar that beckon heritage enthusiasts, there are many monasteries and stupas in Odisha. The diamond triangle of Odisha – Buddhist monasteries on the hills at Lalitgiri, Ratnagiri and Udayagiri are ancient archaeological sites excavated recently.

The hills were referred to as Ratnagiri or the hill of precious gems, Lalitagiri or the red hill and the Udayagiri, the hill of the rising sun. Hiuen Tsang in his chronicles referred to the ‘Diamond Triangle’ of Odisha as “Pusipokili, a place of learning. Lalitgiri, Ratnagiri and Buddhist Udayagiri are the famous places in Odisha where people can experience the culture and art. Lalitgiri is situated at the district Cuttack and both Ratnagiri and Udayagiri in the district Jajpur of Odisha. These three famous Buddhist centres are together known as the Diamond Triangle. The first identification of archaeological antiquities from the Diamond Triangle sites was conducted in 1905 by M.M. Chakravarty, the then Sub Divisional Officer in Jajpur. Later, in 1927 and 1928, R.P. Chanda of the Indian Museum in Kolkata documented the site in the Memoirs of Archaeological Survey of India (ASI). In 1937, the site was officially declared a protected monument by the central government. In 1977, some excavations were done at the site by the Utkal University. Detailed excavations by the Bhubaneswar Circle of the Archaeological Survey of India were conducted between 1985 and 1991. From these investigations, it has been inferred that Lalitgiri, one of the earliest Buddhist sites in Orissa, maintained a continuous cultural sequence starting from the post-Mauryan period (322–185 BC) till 13th century AD. It is also inferred that this site maintained an unbroken presence of Buddhism, unbroken, from 3rd century BC to 10th century AD. In 1985, the Archaeological Survey of India (ASI) started excavation at Lalitgiri to locate Pushpagiri, an important Buddhist site mentioned in the writings of the Chinese traveller Huen Tsang. The excavation led to several important archaeological discoveries, but none of these confirmed the identification of Lalitgiri with Pushpagiri. Later, excavations at Langudi Hill suggested that Pushpagiri was located there.

### Ratnagiri – A precious excavated site

Ratnagiri monastery in the Jajpur district of Odisha crowning flat hill-top affords a panoramic view of the surrounding area might have been chosen for the seclusion for the serene and calm atmosphere necessary for monastic life and meditation studies. Ratnagiri is located near the Birupa river in the district Jajpur. It is another Buddhist centre. Buddhism had developed at this place in the 12th century. There is a main stupa which is encircled by several medium and smaller stupas. The main stupas stand as a symbol of the Buddhist pilgrimage. The stupas differ in their structure, materials and construction. There are two Monasteries also present. It is close to other Buddhist sites in the area, including Pushpagiri, Lalitagiri and Udaygiri. Ratnagiri is one of the most excavated sites among the three sites that make the Buddhist triangle of Odisha. There is a massive sand art. Excavations have unearthed two monasteries and one large stupa followed by several smaller votive stupas--all built in the period between 5th-13th centuries. Terracotta seals were discovered here bearing the name ‘Ratnagiri’. According to historians, Ratnagiri was established around the 5th century by the Gupta kings and the region flourished till the 13th century. Some believed that Ratnagiri was established no later than the reign of the Gupta king Narasimha Baladitya in the first half of the sixth century CE. Its strategic location helped the monks stay here safely without much fear of invaders. Inside a shrine is a twelve-foot tall Buddha flanked by Padmapani and Vajrapani. The most important monument here is the giant mahastupa surrounded by several smaller votive stupas, believed to have been

built around the 9th century. Historians, however, say that there was an earlier stupa here erected by the Guptas. There are smaller stupas surrounding it, arranged in circles. Historians believe that the architectural style of the Odisha inspired the stupas in Borabodur in Indonesia which were probably built much later. Standing atop the hill, I take in the entire view. The entire site is steeped in antiquity and lost in silence. Statues lie scattered everywhere. Excavation conducted by the Archaeological Survey of India during the 1960's yielded the remains of an impressive Stupa (Stupa 1) surrounded by a large number of votive Stupas of varying dimensions, two quadrangular monasteries (Monasteries 1 and 2), a single-winged huge monastery with beautiful carved doorjamb and lintel, spacious open courtyard, cells and verandah facing the courtyard with spacious sanctum enshrining colossal Buddha. The existence of temple with curvilinear tower is only one of its kind discovered in Odisha. From the impressive remains and large number of sculptures, discovered during excavation, it is clear that the Buddhist establishment of Ratnagiri, dating from circa 5th century CE witnessed a phenomenal growth in religion and architecture till the 13th century CE. Large numbers of stone sculptures, a few bronze and brass images of Buddha and Buddhist pantheon recovered during excavations tend to prove that Ratnagiri was a great Tantric centre of Buddhism comparable to that of Nalanda in Bihar. A large number of clay sealings, found during excavations, bearing the legend *Shri Ratnagiri Mahavihariya Arya Bhikshu Samghasya* have helped in identifying the name of Ratnagiri monastery. By the end of the 13th century CE, it was on decline, decadence is discernible in architecture and sculptural art of Ratnagiri. Though no longer in an affluent condition, the Buddhist establishment at Ratnagiri continued till about the 16th century CE. A large-scale excavation was conducted at the site between 1958 and 1961. The report of these excavations was published by the A.S.I. Mitra (1981 and 1983) uncovering much of what is known today. The main stupa dates to the 9th century CE and was likely built on the site of an earlier, Gupta-era stupa. Seals were found bearing the legend *Sri Ratnagiri Mahavihariya Aryabikshu Sanghasya*, helped identify it. Prominent, well-preserved standing statues of the bodhisattvas Vajrapani and Padmapani can be found in niches in a portico. Monastery No. 2 features a central paved courtyard flanked by a pillared veranda around which are eighteen cells, a central shrine featuring an image of Shakyamuni in *Varada Mudra* flanked by Brahma and Sakra, and elaborately ornamented entrance porticos. A museum now located on the site displays statuary featuring Tara, Avalokiteshvara, Aparajita, and Hariti have also been found, all in prototypical of Gupta style.

#### **Udayagiri – largest excavation site**

Udayagiri is situated at the district Jajpur. It is also a very popular centre for the Buddhist pilgrimage. It is 5 kms away from Ratnagiri. There is a large brick Monastery together with a number of Buddhist sculptures. Its other attractions are Bodhisattva figures and Dhayani Buddha figures. Buddhist monuments are also the other treasures those are found at Udayagiri. Udayagiri known as Madhavapura Mahavihara was a prominent centre of Buddhism between the 7th and 12th centuries.

**Udayagiri** is the largest Buddhist complex in Odisha. It is composed of major stupas and monasteries (viharas). Its historical name was "Madhavapura Mahavihara." This Buddhist complex, preceded by the Ratnagiri and Lalitgiri sites, with their monasteries, is believed to have been active between the 7th and the 12th centuries. Udayagiri is situated in the foothills, 90 kilometres to the north-east from Bhubaneswar, and 70 kilometres north-east of Cuttack in Jajpur district. Numerous excavations by the Archaeological Survey of India (ASI) have been conducted at Udayagiri since 1958. The Udayagiri Site 1, the first site to be excavated, is in a depression between two valleys. In the excavations done during the periods 1985–86 and 1989–90, at the Udayagiri Site 2, the antiquities exposed consisted of a Buddhist Monastic complex enclosed within a compound wall, including a stupa of 23 ft height with four images of dhyani Buddhas fixed at its four cardinal points. On the basis of the epigraphical evidence, archaeologists have inferred that this site is "Madhavapura Mahavihara". During the large excavation from 1997 to 2000, a second part of Udayagiri ( Udaygiri-2) was discovered with additional stupas and monasteries. These antiquities consist of two eighth century monastic complexes, statues of Buddha, Tara, Manjusri, Avalokitesvara, Jatamukuta Lokeshvara and many terracotta (earthenware) seals. A stepped stone well with epigraphic inscriptions has also been discovered. Also seen near one of the entry gates at the site is a human figure swinging on a rope, with eyes closed, in a state of perfect happiness. During the recent investigations conducted between 2001 and 2004 the antiquities unearthed included a stone finish flooring in the foreground of the excavated monastery, the main drain of the monastery flowing out to the north, a large stone raised platform 14.05 by 13.35 metres (46.1 ft × 43.8 ft) in size built in seven layers with ashlar masonry accessed through a series of steps, and marked in its northern end by a chandrashila (moon rock). Also found were apsidal chaitya-grihas (an old one replaced by another built in brick) facing east with a stupa deified in it, built with stone and bricks, founded on the raised platform, and remnants of stone jali embellished with the theme of a three-hooked snake inferred as gavakshas (horse-shoe arches). Images of Tara in the form of Tara Kurukulla or

Kurukulla Tara have been reported from Udayagiri and also from Lalitgiri and Ratnagiri; these are an emanation form of Amitābha seated in a Lalitasana posture. Images of Hariti have been found in Udayagiri and also in Lalitgiri and Ratnagiri. Hariti was once a child-lifter, but Buddha persuaded her to become the protector of children. Also seen in the western, southern and northern parts of the chaitya-griha are remnants of a number of stupas in three groups, built in stone with only their plain plinths seen in a preserved state. An important discovery in the precincts of the chaitya-griha, is of statues of Avalokiteswara, Tathāgata, Bhikruti-Tara and Chunda embedded in niches, marking the four cardinal points. Other findings are of 14 stupas (built in brick with mud mortar) dated between the 1st and 12th centuries, and also many 5th- to 13th-century epigraphs. Votive stupas, made of stone, are also seen along a stone paved path. At the eastern part of the chaitya-griha are residential houses consisting of six rooms with artifacts of domestic goods. Though located only 5 kilometres (3.1 mi) away from Ratnagiri, the site has not revealed any artifacts which could provide a link to the Vajrayana tantric cult found at Ratnagiri.

### **Lalitgiri**

**Lalitgiri** (also known as **Naltigiri**) is a major Buddhist complex in the Indian state of Odisha comprising major stupas, 'esoteric' Buddha images, and monasteries (viharas), one of the oldest sites in the region. Significant finds at this complex include Buddha's relics. Tantric Buddhism was practiced at this site.

Lalitgiri is the oldest Buddhist site that has monuments dating back to the 1st century. Lalitgiri is also believed to be the most sacred among the three sites as it unearthed a massive stupa where a relic of Buddha was discovered – his teeth in the form of a bone inside a stone casket.

There are four monasteries excavated here besides a Chaityagriha surrounded by votive stupas.

The monasteries are virtually empty and the sanctums have no deity or carvings.

A visit to Lalitgiri is not complete without a tour to the museum which houses several sculptures including the casket with Buddha's relic. It is believed that the casket was also filled with precious stones and gold as well.

### Lalitgiri Mahastupa

The excavations carried out by the ASI at Lalitgiri have unearthed remnants of a large stupa on the hill. Within the stupa, two rare stone caskets were found with relics of the Buddha; this was the first such find in Eastern India. The stone caskets, like Chinese Puzzle boxes, made of Khondalite stone, revealed three other boxes within them, made of steatite, silver and gold respectively; the gold casket, which is the last one, contained a relic or dhatu in the form of a small piece of bone. Another interesting find is that of an east-facing apsidal chaityagriha, built of bricks, 33 by 11 metres (108 ft × 36 ft) in size with 3.3 metres (11 ft)-thick walls. This edifice, the first such Buddhist structure found in Odisha, contains a circular stupa at its center. Also found were a series of Kushana Brahmi inscriptions made on shells with cuts on moonstone at the periphery of the edifice. Another find is a piece of a pillar railing with a lens-shaped decoration with the theme of a half lotus medallion. From these finds it is inferred that such structures belonged from the early Christian era to 6th–7th century period.

Lalitgiri Central structure :Also found were remnants of four monasteries. The first and the largest monastery, facing east, a two-storied structure measuring 36 square metres (390 sq ft), has at its centre a 12.9 metres (42 ft) square open space; it is dated to 10th–11th century AD. Adjoining the monastery at the rear end is a rainwater cistern built of bricks. The second monastery, in the northern extremity of the hill, is believed to have been built when Buddhism was losing its importance in Lalitgiri. The third monastery faces south-east and has dimensions of 28 by 27 metres (92 ft × 89 ft) with a central open space of 8 square metres (86 sq ft) and represents the end stages of apsidal chaitya. The fourth monastery, 30 square metres (320 sq ft), in size, has many large sized Buddha heads deified in the sanctum sanctorum. A terracotta monastic seal with the inscription "Sri Chandraditya Vihara Samagra Arya Vikshu Sanghasa" is dated to the 9th–10th century AD. The antiquities unearthed include a plethora of images of Buddha in different meditative forms from the Mahayana Buddhism period. The finds also include a gold pendant, silver jewellery, stone tablets with imprints of Ganesha and Mahisasurmardini, a seal matrix-cum-pendant, and a small image of Avalokitesvara. Images of Tara in the form of Tara Kurukulla or Kurukulla Tara have been found in Lalitgiri and also from Udayagiri and Ratnagiri. The inscriptions, found here, which dated from the post Mauryan period to 8th–9th century AD, indicate that Buddhists belonging to the Hinayana and Mahayana sects lived in the monastery. The last period of occupation is identified as belonging to Vajrayana, the Tantric period of Buddhism during the reign of Bhaumakaras (9th–10th century AD).



*Excavations in Udayagiri    Old scattered remains in Ratnagiri    Sand Art in Ratnagiri*



*Ornated door at Ratnagiri    Excavations are still on in these sites    Ruins at Ratnagiri*

**Department of History(History Hons, Third year, session-2017-2018)**

**Names of the StudentsTeacher-Superisors**

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Ruma Roy	Saurabh Adhikary	Aritri Samanta
Ketoki Roy		

**7. Features and activities of a Multipurpose project DVC Maithon and Panchet with special emphasize on importance of irrigation in our economy**



*Prepared by,  
Department of Economics,  
Gurudas College, Kolkata  
Place: Maithon, No. of Students: 26, Session: 2015-16*

## **Overview**

The Maithon Dam is located at [Maithon](#), 48 km from [Dhanbad](#), in the state of [Jharkhand](#). It is 15,712 ft (4,789 m) long and 165 ft (50 m) high. This dam was specially designed for flood control and generates 60,000 kW of electric power. There is an [underground power station](#), the first of its kind in the whole of South East Asia. The dam is constructed on the [Barakar River](#). The lake is spread over 65 square kilometres (25 sq mi). DVC is the first-ever multipurpose river valley project of independent India which came into being on July 7, 1948 by an act of Constituent Assembly (Act no. XIV of 1948). DVC has its command area of approx 24,235 km<sup>2</sup> spreading across the Damodar basin. The upper valley consists of two entire districts (Dhanbad and Bokaro) and eight districts partly in the state of Jharkhand. The lower valley on the other hand consists of five districts partly (Burdwan, Hooghly, Bankura, Howrah and Purulia) in the state of West Bengal. DVC was set up with the intent of promoting and operating the schemes which may cause social and economic uplift in the valley region.

## **Prospects and opportunities of this vists**

To explore the Features and activities of a Multipurpose project DVC Maithon and Panchet with special emphasize on importance of irrigation in our economy we were visit this place on behalf of Department of Economics, Gurudas College with our respected teachers. It is very much well known that proficient management of water resources through dams, canals and barage, DVC facilitated irrigation as well as industrial and domestic water supply which at large benefited the region as a whole. DVC has been generating, transmitting & distributing electrical energy since 1953 and has succeeded not only in meeting the expectation of consumers but has also elevated its height in its performance. The full form of DVC is Damodar valley corporation and since it uses its main source of water from the Damodar dam it is named so. Recently it has collaborated with TATA Power and a thermal power project has been started, named Maithon Power Limited (MPL). Earlier DVC had installed few Gas Turbines for generation of electricity, an unique technology in the entire region introduced for the very first time in Maithon. They are no more functional now. DVC has provided employment to thousands of families and is continuing to do so. It also provides facility for engineering and management graduates to undergo training in their respective fields.

## **History of Maithon**

In 1942, during the course of World War II, a flood occurred in the Damodar valley region that cut Calcutta off from the rest of the country for a period of 10 weeks. Soon the government sprang into action & called Mr. W.L.Voord, a civil engineer of [Tennessee Valley Authority](#) (TVA). He designed the plan of the dams by 1945. Finally the first dam of independent India came up on July 7, 1953 at Tilaiya. Soon Konar, Maithon & Panchet Dam followed in its footsteps in 1955, 1957 and 1959 respectively. 48 km from Dhanbad, Maithon is termed as mother's abode. It has the biggest reservoir in DVC. Conceived on the lines of Tennessee Valley, USA it has been designed for flood control & generates 60,000 kW of electric power. It is built on the river Barakar. It has its unique underground power station, the first of its kind in South Asia. The lake is spread over an area of 65 km<sup>2</sup>. It is 15,712 ft (4,789 m) long & 165 ft (50 m) high.

The dam's mission comprises:

- I. flood Control
- II. promotion & operation of schemes for irrigation
- III. water supply for domestic & industrial use
- IV. navigation & drainage
- V. generation, transmission & distribution of electrical energy.

### **Operation of Maithon Hydel**

Damodar river is a seasonal river, basically 82% of which is filled up by rainfall in July–September. 1 June to 31 October is the filling period during which rainwater is stored and the stored rainwater is used for irrigation by the downstream areas of Burdwan, hydroelectric power generation and scores of other activities.

Maithon Hydel Power Station (MHPS) is located on the river Barakar about 12.9 km above its confluence with the Damodar near the border of Dhanbad & Burdwan districts of the states of Jharkhand & West Bengal respectively. The unique feature of this is that it is located underground in the left bank of the river and is the first of its kind in India. The power station has a total generating capacity of 60 MW with 3 units of 20 MW each. MHPS is located at almost 100 feet below the water level, and is the first of its kind, in South East Asia.

### **Problems**

People involved in power generation say that water should be filled up as much as possible as it would be better for power generation. People involved in flood control department says water storage should be lowered, so that in case of excessive rain a flood like situation arises then it will be a flood cushion. This is a conflicting nature, so water has to be kept at an optimum level to satisfy both parties. Dead Storage Capacity of the dam during the initial years was much more than the storage capacity now. The portion of a water storage's capacity that is equal to the volume of water below the level of the lowest outlet (the minimum supply level), is known as the Dead Storage Capacity. This increase has been mainly due to the sedimentation storage. Due to human & industrial activities, the storage capacity has decreased over the years. As per the design of dam given by Mr. Voord capacity depth should have been 500 ft (150 m). But due to non-acquisition of land the depth is at 495 ft (151 m). The carrying capacity of the dam as designed by Mr. Voodro was 1,000,000 cu ft/s (28,000 m<sup>3</sup>/s). But at the time of construction it was only 250,000 cu ft/s (7,100 m<sup>3</sup>/s) and at present it has a carrying capacity of less than 100,000 cu ft/s (2,800 m<sup>3</sup>/s). The cost of removing deposited silt in the dam is equal to the construction of a new dam, therefore economically not viable. If the silt is removed and stored in the banks of the dam, then during monsoon the silt would get washed off into the dam. Maithon Dam has completed 60 years in service, and this naturally has an effect on the structures, in spite of regular maintenance by DVC.

### **Flood Warning**

Before releasing the water from dam's spillway gates, necessary warning is communicated to district authorities, affected downstream industries, municipalities and others including senior administrative officials of Burdwan, Bankura, Purulia; IOW Dept. Govt. of WB; EE, DHW, Durgapur; Member(RM); CWC, New Delhi. Whenever there is a discharge from Maithon and Panchet dams exceeding 1,132 cu ft/s (32.1 m<sup>3</sup>/s), special arrangements are

broadcast through DOORDARSHAN and AIR regional news bulletins. DOORDARSHAN, Kolkata also telecasts daily weather forecasts with probable rainfall in the Damodar Valley. Maithon Dam has completed its 60 successful years in the service to the nation but, the maintenance of the reservoir is a matter of concern. In these 60 years the depth of the reservoir has decreased, so it gets flooded very soon. So to maintain the safe level the water has to be released through dams. It has a dual impact, first it hits badly to the irrigation in Burdwan District also the power generation capacity MHPS as the capacity of the reservoir has decreased in last 60 years. The rain water takes a lot of soil with it and the same settles down in the reservoir causing decrease in the depth.

### **Barrage and Irrigation System of DVC**

The river Damodar has a basin area of 58,480 sq. km. of which 32,110 sq. km. is in Jharkhand (erstwhile Bihar). A comprehensive programme of flood control, irrigation and power generation was planned under a corporation with participation of Bihar, West Bengal and Govt. of India. DVC was formed in 1948. Four dams situated in Jharkhand is complete though acquisition of some flood storage areas still remains incomplete. The irrigation and canal system of DVC has been handed over to the Govt. of West Bengal in 1964. In the original project DVC canal system was designed mainly to provide irrigation in Kharif and Rabi period. Now, the system has started providing irrigation to summer paddy also. At present further work for increasing irrigation coverage by reducing transmission losses and changing cropping pattern has been taken up. An irrigation potential of 4,83,500 ha. out of its ultimate irrigation potential of 5,10,110 ha. has been created through the project in the districts of Burdwan, Bankura, Hooghly and Howrah.

Location	Durgapur, District Burdwan on the river - Damodar
Catchment area	19,547 sq. km. (7,635 sq. Miles) Damodar - Barakar Basin
Width Between Abutments	692 m (2271 ft.)
No. of Weir Bays	24 - Each width 18.29 m+ (Under Sluice Bays - 10 (Each width) 10.3 m)
Linear Waterway	622 m (2040 ft.)
Design Discharge	16,374 cumecs (5,50,000 cusecs)
Optimum Pond Level	64.48 m (211.50 ft.)
Design Upstream Level	64.88 m (212.80 ft.)
Canal Discharge	Left - 258 cumecs (9,185 cusecs) Right - 64 cumecs (2,254 cusecs)
Irrigable Area	Kharif - 3,93,768 ha (9,73,000 acres) Rabi - 22,255 ha (55,300 acres)
Maximum Irrigation	Kharif - 3,33,200 ha (8,23,000 acres) Rabi - 18,450 ha (45,500 acres) Boro - 89,790 ha (2,22,400 acres)

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## 8. Field Project Report of Philosophy Department

One of the most important benefits of an educational tour is that it gives students a better opportunity to explore their subject outside the class room. The idea of educational tour is built around the practice of experiential learning. Given these benefits Department of Philosophy organised an educational tour to Shantiniketan(The land of Tagore).

We selected Shantiniketan for our educational tour because Rabindranath Tagore apart from being a famous poet ,novelist and song writer, was a great philosopher too.In his different works we found he was strongly influenced by the idealistic view of Upanisads.

Our motive for organising this tour to Shantiniketan was to understand the interconnectivity of Tagore's Philosophy and Vaidantic views .We also encouraged our students to understand the influence of monistic views on Tagore's educational Philosophy.

We provided questionnaire to our students so that they can explain their understanding about Tagore's Philosophy. The questionnaire is as mentioned below.

1. Which aspect of Tagore's work makes you understand that he was influenced by the monistic view of Indian Philosophy?

A. In his different works we found that he had a strong faith on highest supreme metaphysical reality which is very much similar to the concept of Brahma of Vedanta Philosophy.

2.Was he influenced by the Western idealism as well as Indian idealism?

A.He was greatly influenced by the Indian idealism.

3.Can you explain how his educational philosophy is influenced by his monistic view?

A. According to Tagore the main goal of education is imparting the lesson of humanity. He thought that belief in a supreme metaphysical reality would be a help in demolishing the phenomenal differences that lie in human race.

4. Can you mention the influence of some other theory over his educational philosophy?

A. Naturalistic theory also influenced Tagore's educational philosophy.

5.Do you think this educational tour helped in understanding the Tagore's philosophy?if yes then why?

A. Yes ,I think this educational tour to Shantiniketan immensely helped in understanding Tagore's philosophy because during this tour we had the opportunity to visit Visva-Bharati University campus, meuseum, library and different other places which helped us to make a direct understanding of Tagore's philosophy.

Our educational tour was conducted between 30 th march to 1st April,2019.Two students of our department joined this tour along with two teachers. We are thankful to our college authorities as they have rendered co-operation in conducting our educational tour.

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## **9. Garpanchkot (History Hons, Third Year, session 2014-2015)**

Purulia is a beautiful land enriched with remains of its rich cultural and religious past, often related to the thriving Jain culture of the region during 9th and 11th CE. Behind this cultural efflorescence lay the patronage of the Panchakot or Panchet Raj. Garpanchkot garh was a part of the Singh Deo dynasty of Panchkot or Panchet located at the southern foothills and a group of temples are still standing as mute spectators of the rise and fall of the dynasty. In the medieval period Garpanchkot was the seat of the Panchet Rajas who later shifted their capital to Kashipur. The remnants of the fortress and temples etc. that are now visible around Gar Panchakot were built by the Panchet Rajas. This royal family, which still survives and carries forward its royal lineage and public recognition from Kashipur Rajbari in Purulia, had established a mighty capital and fortress in the lap of Panchet Hills. The family ruled from this capital, known as Garh Panchakot, uninterrupted for 810 years, from 940-1750 C.E. This area is also known as Sikharabhum. The legend goes that Panchakot was the region controlled and inhabited by five aboriginal jatis or khunts. Thus came the name Panchakot. The family genealogy of the zamindars of Panchakot traces their origin back to the first century CE to an ancestor who supposedly hailed from Ujjain. What comes down to us as the history of the Panchakot Raj is actually a blend of legend and actual history. According to the legends, Damodar Sekhar established the Panchkot Royal dynasty with the help of tribal leaders of Jhalda between 80 to 90 CE. To give recognition to the local five clans the Kingdom assumed the name Garpanchkot. Coupland (Bengal District Gazetteers, Manbhum, 1911) also suggests that the name may refer to the four fort walls and the citadel within. J D Beglar, during his late nineteenth century reconnaissance of vestiges of this part of India, had recorded the presence of five gateways that might have served the entry points of the five fortification walls. The name of the Tailakampa (Telkupi) was mentioned in the Ramcharita of Sandhyakar Nandi. This was the seat of power of Rudrasikhara, one of the confederates of Ramapala in his battle against the Kaivartyas. Panchkot raj was probably part of Tilakampa kingdom. Telkupi, a village under Raghunathpur Police station was submerged with the construction of Panchet dam. Historian J.D.Beglar who visited Telkupi in 1862 described it as 'containing, perhaps, the finest and largest number of temples within a small space that is to be found in the Chutia Nagpur Circle in Bengal'. It is probable that the kingdom or chiefdom came under the Bishnupur Mallas around the 17th century. The name of Vira Hambir was mentioned in an inscription on the gates of the ruins. This inscription has been recorded in Coupland's Gazetteer. A landmark around tenth century is also available and the next is around the beginning of the seventeenth century with the inscription on the gates of the fortress in Bengali character mentioning Sri Vira Hambira. The temples are of different architectural styles, the principal one being a 'Pancharatna' temple accompanied by 'Jor-Bangla' type and more than one 'pirha' type temples, made of stone. The Pancharatna temple still carries some depleted but exquisite pieces of terracotta work on its arches and pillars. Garh Panchkot was abandoned in the 1750s, because of Maratha-Bargi raids and internecine wars. The royal family moved to Kashipur on the banks of Dwarakeshwar river, 30 km south. Michael Madhusudan Dutta, the great Bengali poet, visited the place during 1872 for a short period as an estate manager of the Singh Deo dynasty. He wrote three poems on Panchkot – 'panchkot giri', 'Panchkotasya Rajasree' and 'Panchkot Biday Sangeet'.



Ruins of the fort and Pancharatna Temple at Garpanchkot is situated at the foothill of Panchakot(Panchet hill),in the north east corner of the Purulia District.

**Department of History**

**Names of the Students Teacher-supervisors**

Ayan Das

Ballari Sen

Puja Das

Gopa Mukherjee

Bijoy Mandal

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Ishita Das

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Mukta De

Debabrata Singha

Supratap Mandal

Shubha Bakshi

Rituparna Roy

Oli Das

Rahul Chatterjee

Sonali Koley

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## **10. Gaur Pandua (History Hons, Third Year, session 2015-2016)**

**Gaur, Gour** or **Lakhnauti** was one of the prominent capital city in the [history of the Indian subcontinent](#). It is located on the border between modern-day [India](#) and [Bangladesh](#), with most of its ruins on the Indian side and a few structures on the Bangladesh side. The course of the [Ganges River](#) was located near the city before a change in the course of the river. Gauda rivalled other imperial cities in the [Indian sub-continent](#) in terms of wealth and population. Today, much of the ruins of Gauda are located along the [Bangladesh-India border](#). Most of the ruins are located on the Indian side in the [Malda district](#) of [West Bengal](#). The [Chapai Nawabganj](#) district of Bangladesh also hosts remnants of the former capital. Gauda was the [capital city](#) of [Bengal](#) under several kingdoms., the [Gauda Kingdom](#) was founded by King [Shashanka](#). After the fall of the [Gupta Empire](#), western Bengal was ruled by the [Gauda Kingdom](#) and eastern Bengal by the [Samatata](#) Kingdom. Gauda was founded by [Shashanka](#), one of the pioneering Bengali kings in history. Shashanka's reign falls approximately between 590 and 625. The [Pala Empire](#) was founded in Gauda during the 8th century. The Pala period saw the development of the [Bengali language, script](#) and other aspects of Bengali culture. Indeed, the term *Gaudiya* (of Gauda) became synonymous with Bengal and [Bengalis](#). Gauda became known as Lakhnauti during the [Sena dynasty](#). The name was given in honour of the Sena ruler Lakhsman Sena. The empire ruled large parts of the northern Indian subcontinent. Gauda was also the seat of the [Sena dynasty](#) until its overthrow in the 13th-century. Lakhnauti was conquered by the forces of the [Delhi Sultanate](#) led by [Bakhtiar Khilji](#) in 1204. The Delhi Sultanate retained Lakhnauti as the provincial capital of Bengal. Khilji issued gold coins in honour of the Delhi Sultan [Muhammad of Ghor](#), inscribed in [Sanskrit](#) with the words *Gaudiya Vijaye* (On the conquest of Gauda). Gauda was widely known as Gaur during the rule of Ilyas Shahi dynasty in Bengal. The founder of the sultanate, [Shamsuddin Ilyas Shah](#), was Delhi's governor in [Satgaon](#). Ilyas Shah rebelled and overthrew Gaur's governor [Alauddin Ali Shah](#) in 1342. Ilyas Shah united the Bengal region into a separate independent state from Delhi in 1352. [Pandua](#) became the first capital of the Bengal sultanate. In 1450, Sultan [Mahmud Shah of Bengal](#) transferred Bengal's capital from Pandua to Gaur. The transfer was completed by 1453. For over one hundred years between 1450 and 1565, Gauda was the capital of the [Bengal Sultanate](#). The [Portuguese](#) left detailed accounts of the city. The Sultans built a citadel, many mosques, a royal palace, canals and bridges. Buildings featured glazed tiles. It became one of the most densely populated cities in the Indian subcontinent. The city thrived until the collapse of the Bengal Sultanate in the 16th-century when the [Mughal Empire](#) took control of the region. When the Mughal Emperor [Humayun](#) invaded the region, he renamed the city as Jannatabad (Heavenly City). Most of the surviving structures in Gauda are from the period of the Bengal Sultanate. The Mughals built several structures in Gaur, including the Lukochori Darwaza (hide and seek gate) built in the reign of viceroy [Shah Shuja](#). An outbreak of [the plague](#) and a change in the course of the Ganges caused the city to be abandoned. Since then it has been a heap of ruins in the [wilderness](#) and almost overgrown with jungle. The city was looted and plundered during [Sher Shah Suri's](#) invasion. In 1575, Gaur was conquered by a Mughal contingent led by [Munim Khan](#). The Bengal Sultanate ended during the [Battle of Rajmahal](#) in 1576. An outbreak of the plague contributed to the city's downfall. The [citadel](#), of the Muslim period, was strongly fortified with a rampart and entered through a magnificent gateway called the Dakhil Darwaza (1459–1474). At the south-east corner was a palace, surrounded by a wall of brick 66 ft (20 m) high, of which a part is standing. Nearby were the royal tombs. Within the citadel is the Kadam Rasul mosque (1530), which is still used, and close outside is a tall tower called the [Firoz Minar](#) (perhaps signifying tower of victory). There are a number of Muslim buildings on the banks of the Sagar Dighi, including, notably, the tomb of the saint Makhdum Shaikh Akhi Siraj (died 1357), and in the neighbourhood is a burning [ghat](#), traditionally the only one allowed to the use of the Hindus by their Muslim conquerors, and still greatly venerated and frequented by them. Many inscriptions of historical importance have been found in the ruins.

### **Tombs in Gaur**

Gauda's heritage sites are maintained by the [Archaeological Survey of India](#). The [Bangladesh Archaeology Department](#) has carried out several projects in both the Bangladeshi and Indian sides of Gauda. The Indian archaeological survey is also carrying out excavations of a mound about a kilometre from the Chikha building within the Baisgaji Wall where remains of a palace are turning up. The ruins of the 15th to the 16th century consist of brick structures which are adorned with coloured tiles. The finest ruin in Gauda is that of the **Great Golden Mosque**, also called Bara Darwaza (1526). **The Sona Masjid** is the Golden Mosque or Baradarwazi, the largest building still standing in Gaur. It lies on the western side of a raised quadrangle with eleven arched openings facing the restored entrance gateway. The interior was covered with forty-four small domes supported on stone pillars, but only those which form a veranda to the front of the building survive, with the three aisles beyond. Constructed by

Nusrat Shah, it is faced in plain stone. Traces of a raised platform or takht for the ladies can be seen in the north-west corner. An arched corridor running along the whole front of the original building is the principal portion now standing. These arches are surmounted by eleven domes in fair preservation; the mosque had originally thirty-three. To the south-east corner of the fort are two mosques. The **Qadam Rasul** was constructed by Nusrat Shah to house a representation of the footprint of [Prophet Muhammad](#). The south and north walls have rows of recessed panels and the arched entrances are carried on massive octagonal piers. To the north-east and south sides is a vaulted veranda. Close to the site is the **Tomb of Fateh Khan**, with a curved Bengali roof, the south-east gateway to the fort. At a distance of eight hundred meters to the north of the east wall is the **Firuz Minar** or Pir Asa Minar. It is a brick Victory Tower, 84 ft in height, with three polygonal stages holding two top circular storeys. There is a single arched opening at each level and a chajja divides the lower from the upper stages. At a distance of eight hundred meters to the east of Qadam Rasul is the ruined **Tantipara Mosque**, with some of the finest brick detail in Bengal. There is an octagonal turret to each corner. The five entrance arches correspond with the mihrabs on the qibla wall. At a distance of eight hundred meters to the south is the **Lattan Mosque** or Painted Mosque, whose attribution is due to the bricks being enamelled in bright banded colours, of which traces remain. The single dome, carried on brick pendentives, is enriched with multi-coloured tiles. To the north, the Piasbari Tank is situated. In the south wall of the city the **Kotwali Darwaza** marking the border with Bangladesh. Once it had a monumental pointed entrance arch flanked by semi-circular bastions, but it is now in ruins. Sixteen kilometers to the south, in the suburb of Firuzpur, is the **Chota Sona Mosque or Lesser Golden Mosque**, famously called the Gem of Gaur. It exhibits carved stone panels of intricate design in black basalt. The central corridor has typical Bengali 'char-chala' vaulting. Choto Shona Mosque is now located in Chapai Nawabganj district of Bangladesh. Within the fort ramparts, close to the Qadam Rasul, are the **Lukachuri or East Gate**, a two-storey building with guardrooms on each side constructed by using brick and stone with traces of plaster. The Chika Building was probably an office or jail and may date from the early 15th century. It is a plainly detailed structure with a large brick dome. It resembles the Eklakhi Tomb at Pandua. Immediately opposite is the **Gumti Darwaza**, the eastern entrance to the old Imperial citadel. It is a small square structure with engaged corner turrets and a single dome. Fluted turrets flank the main entrance. Towards the east of the Lukachuri is the **Chamkatti Mosque**. It is a small dilapidated building with a single dome and a vaulted veranda to the east. Vestiges of a glazed tile and terracotta relief have remained. Between the Kotwali Gate and Mahadipur lies the ruined **Gunnant Mosque**, a multi-aisled mosque with a central, barrel-vaulted corridor influenced by the earlier Adina Mosque at Pandua. In a mango grove to the north-west is the ruined facade of an old Mughal mosque of the 17th century. Nothing now remains of the **Darashari or Lecture Hall**, a building similar to the Baradarwazi which lay between Mahadipur and Firuzpur. **The Dhunichak Mosque** is located in the southern suburbs. Only the west and north walls remain. Close to it is the **Rajbibi Mosque**. It is a rectangular structure with a domed square prayer chamber and triple-domed veranda. Also in the southern suburbs is the ruined Darasbari Mosque, possessing a central corridor flanked by aisles. The roof structures have long since fallen, but the design is unique. **The Tomb and Mosque of Shah Nimat Allah** lie in Firuzpur, at a distance of eight hundred meters to the north-west of the Chota Sona Mosque. The mosque is attributed to Shah Shuja, Governor of Bengal. The sarcophagus lies in a square, central chamber surrounded by a domed, vaulted veranda. Apart from these; there are several historical monuments which offer a suitable opportunity for those interested in the history of India as well as general tourists. **Pandua** (historically known as **Hazrat Pandua** and **Firozabad**; also known as **Adina**) is a historic city of the [Indian subcontinent](#). It was the first [capital city](#) of the [Bengal Sultanate](#) for 114 years between the mid-14th and mid-15th centuries. It continued to be a "[mint town](#)" until the 16th-century. The capital later shifted to [Gaur](#). Pandua was described by travellers as a cosmopolitan administrative, commercial and military base, with a population of natives, royalty, aristocrats and foreigners from across [Eurasia](#). Pandua was a [lost city](#) until it was rediscovered by [Francis Buchanan-Hamilton](#) in 1808. A detailed study of the city was carried out by Sir [Alexander Cunningham](#). An aerial survey was conducted in 1931 by the [Archaeological Survey of India](#).<sup>[1]</sup> The notable archaeological sites include **the Adina Mosque**, the largest mosque in the subcontinent; **the Eklakhi Mausoleum**; and **the Qutb Shahi Mosque**. Pandua is located in [Malda district](#) in the [Indian](#) state of [West Bengal](#) near the border with [Bangladesh](#). Coins of the [Balban dynasty](#) of the [Delhi Sultanate](#) refer to Pandua as Firozabad, which is considered to be a reference to the reign of [Shamsuddin Firoz Shah](#). In 1352, rebel governor [Shamsuddin Ilyas Shah](#) united the three Muslim states of Bengal into a single sultanate and founded the [Ilyas Shahi dynasty](#). The Delhi Sultanate was pre-occupied with Mongol invasions in the northwest of India. Muslim governors in Bengal sensed an opportune time to establish an independent authority due to the considerable overland distance with Delhi. The creation of the sultanate is of primary importance in Bengali history, as it resulted in the separation of authority from Delhi and united all parts of Bengal into a single state. Pandua was the capital for the first one hundred years of the Bengal Sultanate. The city was called *Hazrat Pandua* due to the large presence of [Sufi](#) preachers. Pandua was a [walled city](#). Over the course of 114 years, nine kings ruled Bengal from Pandua. All of them were from the Ilyas

Shahi dynasty, with the exception of [Raja Ganesha](#), his son [Jalaluddin Muhammad Shah](#), and grandson [Shamsuddin Ahmad Shah](#). They built palaces, forts, bridges, mosques, and mausoleums, many of which are now in ruins or have disappeared completely. The Sultans of Bengal imitated [Persian](#) court traditions. According to the [Ming](#) ambassador [Ma Huan](#), Pandua was transformed from a small hamlet into a cosmopolitan capital and trade centre, as well as a military garrison. The population included royalty, aristocrats, soldiers, mercenaries, natives and [Eurasian](#) travellers and merchants who either settled or were a floating population along [trade routes](#). Ma Huan wrote that "the city walls are very imposing, the bazaars well-arranged, the shops side by side, the pillars in orderly rows, they are full of every kind of goods". Pandua was a centre of production and marketing. At least six varieties of fine [muslin](#), as well as [silk](#) products, were found in Pandua's markets. The capital of Bengal was shifted from Pandua to Gaur in 1450. The reasons for the shift are yet to be ascertained but a change in the course of a river has been speculated. Pandua continued to host mints that produced silver taka for the duration of the sultanate period. It was an important administrative centre. Pandua's decline began with the conquest of [Sher Shah Suri](#). Pandua became part of the [wilderness](#). Earthquakes damaged its buildings during the 19th century. The high humidity and monsoon seasons of Bengal also caused much of its architecture to crumble. Nothing remains of the former royal palace except for traces in raised mounds. **Historical monuments in Pandua**

The architecture of Pandua has elements of [Bengali](#), [Arab](#), [Persian](#) and [Byzantine](#) architecture. Sultan [Sikandar Shah](#) commissioned the construction of the [Adina Mosque](#) after Bengal's victory against the Delhi Sultanate. The Adina Mosque was modelled on the [Great Mosque of Damascus](#) and became the largest mosque in the Indian subcontinent. Sultan Jalaluddin Muhammad Shah was buried in the [Eklakhi Mausoleum](#), which is an example of [terracotta Bengali architecture](#). [Qutb Shahi Mosque](#), constructed in 1583 AD by a descendant of Nur qutbul Alam, the mosque lies between the tomb of the Saint and the Eklakhi Mausoleum. Though it was built after the Mughal conquest of Bengal in 1576, in its appearance it is a Sultanate mosque of the Gaur type. The royal palace had high steps, nine walls, three gates, and a [darbar](#) room. A contemporary account describes the darbar room as having pillars plated with brass, carved and polished.



Tantipara Mosque    Gunmant mosque    Chhotosona mosque    Chamkati mosque    Fateh Khan's tomb



Firuz Minar    Eklakhi Mausoleum    Adina mosque

## **Department of History**

### **Names of the Students Teacher-supervisors**

Debjit Bhattacharya

Gopa Mukherjee

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Argha Roy

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## **11. Murshidabad (History Hons, Third Year, session 2016-2017)**

Murshidabad was named after its founder, Nawab Murshid Quli Khan. It is a town, located on the eastern bank of the Hooghly River in West Bengal. It forms part of the Murshidabad district. During the 18th-century, Murshidabad was an early modern financial center. It was the capital of the Bengal Subah in the Mughal Empire for seventy years, with a jurisdiction covering modern-day Bangladesh and the Indian states of West Bengal, Bihar and Orissa. It was the seat of the hereditary Nawab of Bengal and the state's treasury, revenue office and judiciary. Bengal was the richest Mughal province. Murshidabad was a cosmopolitan city. Its population peaked at 700,000 in the 1750s. It was home to wealthy banking and merchant families from different parts of the Indian subcontinent and wider Eurasia. The city had a Bengali majority population, including Bengali Muslims and Bengali Hindus. There was an influential Jain community involved in trade and commerce. An Armenian community also settled and became financiers for the Nawab. The Jagat Seths were one of the prominent banking families of Murshidabad. They controlled money lending activities and served as financiers for administrators, merchants, traders, the Nawabs, the Zamindars, as well as the British, French, Armenians and Dutch. The merchants built many mansions, including the Azimganj Rajbati, Kathgola house and Nashipur house. The European companies, including the British East India Company, the French East India Company, the Dutch East India Company and the Danish East India Company, conducted business and operated factories around the city. Silk was a major product of Murshidabad. The city was also a centre of art and culture, including for ivory sculptors, Hindustani classical music and the Murshidabad style of Mughal painting. During the 17th-century, the area was well known for sericulture. In 1621, English agents reported that large quantities of silk were available in the area. During the 1660s, it became a pargana of the Mughal administration, with jurisdiction over European companies in Cossimbazar. Amidst the decline of the central government, the Mughal Emperor Farrukhsiyar promoted Khan to the status of a princely Nawab. As Nawab, Khan was given the opportunity to create a princely dynasty as part of the Mughal aristocracy. Murshid Quli Khan shifted the capital of Bengal from Dhaka, which lost its strategic importance after the expulsion of the Arakanese and Portuguese from Chittagong. He founded the city of Murshidabad and named the city after himself. It became the center of political, economic and cultural life in Bengal. The jurisdiction of the Nawab included not only Bengal, but also Bihar and Orissa. Murshidabad was also located centrally in the expanded jurisdiction of Bengal, Bihar and Orissa. The presence of the princely court, the Mughal Army, artisans and multiethnic merchants increased the wealth of Murshidabad. Wealthy families and companies established their head offices in the city. The Murshidabad mint became the largest in Bengal, with a value amounting to two percent of the minted currency. The city witnessed the construction of administrative buildings, gardens, palaces, mosques, temples and mansions. European companies operated factories in the city's outskirts. Murshid Quli Khan transformed Murshidabad into a capital city with an efficient administrative machinery.

### **Katra Masjid**

Murshidkuli Khan built a palace and a caravanserai with a grand mosque, known as the Katra Mosque. The main military base was located near the mosque and formed the city's eastern gateway. The Katra Masjid is a mosque and the tomb of Nawab Murshid Quli Khan built between 1723 and 1724. It is located in the north eastern side of the city. Its importance lies not only as a great centre of Islamic learning but also for the tomb of Murshid Quli Khan, who is buried under the entrance staircase. The most striking feature is the two large corner towers having loopholes for musketry. At present it is maintained and protected by the Archaeological Survey of India and the Government of West Bengal.

### **Farrabagh**

The third Nawab Shuja-ud-Din Muhammad Khan patronized the construction of another palace and military base, a new gateway, the revenue office, a public audience hall (darbar), a private chamber, the treasury and a mosque in an extensive compound called Farrabagh (Garden of Joy) which included canals, fountains, flowers, and fruit trees.

### **Motijhil (Pearl Lake)**

Ghaseti Begum and Nawazish Muhammad Khan, daughter and son-in-law of Nawab Alivardi Khan built a precious palace near the Motijheel, the horse-shoe-shaped lake .

## **Hazarduari**

One of the most famous historical monuments in Murshidabad is *Nizam Kila* (the Fortress of the Nawabs), also known as the *Hazarduari Palace* (Palace of Thousand Doors), built by Duncan McLeod of the [Bengal Engineers](#) in 1837, in the [Italianate](#) style under the reign of Nawab Nazim Humayun Jah of Bengal, Bihar and Orissa (1824–1838). The foundation stone of the palace was laid on 9 August 1829, and that very day the construction work started. Now, Hazarduari Palace is the most conspicuous building in Murshidabad. In 1985, the palace was handed over to the Archaeological Survey of India for better preservation. The palace has now been transformed into a museum which houses collections from the Nawabs like priceless paintings, furniture, antiques and so on. The famous one is the mirror and the chandelier. The Hazarduari Palace Museum is regarded as the biggest site museum of [Archaeological Survey of India](#) and has got 20 displayed galleries containing 4742 antiquities out of which 1034 has been displayed for the public. The antiquities include various weapons, oil paintings of Dutch, French and Italian artists, marble statues, metal objects, porcelain and stucco statues, farmans, rare books, old maps, manuscripts, land revenue records, [palanquins](#) mostly belonging to eighteenth and nineteenth centuries.

## **Imambara**

The Nizam Imambara was built for Shia Muslims. The present [Nizam Imambara](#) was built in 1847 AD by Nawab Nazim Mansoor Ali Khan Feradun Jah, who succeeded his father Nawab Nazim Humayun Jah in Murshidabad, India. It was built after the fires of 1842 and 1846 which burnt the wooden Imambara built by Nawab Siraj ud-Daulah. This Imambara is the largest one in India and Bengal.

## **Bacchawali Tope**

It is a cannon which lies in the Nizam Fort Campus on the garden space between the Nizam Imambara and the Hazarduari Palace and to the east of the old Madina Mosque. The cannon consists two pieces of different diameters. The cannon was made between 12th and 14th century, probably by the rulers of Gaur. It was used to protect the city of Murshidabad from north-western attacks. After the 1846 fire of the Nizam Imambara the Imambara was rebuilt, then after the completion of the new Imambara the cannon was shifted to its present site by Sadeq Ali Khan, the architect of the sacred Nizam Imambara under the suggestion of Sir Henry Torrens, the then agent of the Governor General of Bengal.

## **Kathgola Garden**

Kathgola often refers to the Kathgola Palace. Kathgola Garden, also known as the Kathgola Temple, was built by Lakshmi Pat Singh Dugar. It is said that [black roses](#) were cultivated here but now only mango trees can be seen here. The gardens cover 30 acres. Adinath Temple also known as Paresh Nath Temple or Kathgola Temple is situated in the Kathgola Gardens. It is a temple dedicated to [Bhagawan Adishvar](#). Kathgola Palace is a four-storeyed palatial palace in the Kathgola Garden. It has an ornamented facade with valuable paintings, mirrors and priceless furniture. It was said that [William Watts](#) and Walsh met [Mir Jafar](#) in Kathgola palace, three days after the [Battle of Plassey](#) in 1757 and conferred concerning payment of the amounts stipulated by them before the battle was fought.

## **Khoshbagh**

The Khoshbagh garden was the burial place of the Nawabs. The remains of [Ali Vardi Khan](#) and [Siraj Ud Daulah](#) are interred in the Khoshbagh Cemetery. The city's decline began with the defeat of the last independent Nawab of Bengal- Siraj-ud-Daulah at the Battle of Plassey in 1757. Nawab Siraj-ud-Daulah was overthrown in 1757. Despite receiving assurances of French support, the Nawab was betrayed by his commander Mir Jafar. The British installed Mir Jafar's family as a puppet dynasty. The British continued to collect revenue from the area's factories. The merchant families continued to prosper under company rule in India. The British shifted the treasury, courts and revenue office to Calcutta. It was declared as a municipality in 1869.



Hazarduari

Imambara

House of Jagat Seth

Katra Mosque

Khoshbagh

**Department of History**

**Names of the Students Teacher-supervisors**

Sandip Chakrabarty

Gopa Mukherjee

Chayan Bhowmik

Sreya Mitra

Soumyadip Saha

Aritri Samanta

Sunil Shaw

Surajit Das

Anima Pal

Soma Das

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## **12. Research Project Report**

### **A Field Trip to Shantiniketan: Exploring Tribal Life and Culture through the Sociological Lens**

#### **Introduction:**

This research aimed to explore the tribal life and culture in Shantiniketan, a small town in the district of Birbhum in West Bengal. Shantiniketan as the name suggests is the abode of peace named by Rabindranath Tagore. Shantiniketan also hails the Visva Bharati University founded by Tagore. The Visva Bharati University is an embodiment of Tagore principles and follows the Gurukul structure of teaching and learning. Shantiniketan is the home of the Santhal tribes whose references can be found in many of Tagore's writings as well. The Sriniketan is also the cultural centre. Apart from being a popular tourist destination in West Bengal, Shantiniketan also makes a popular choice for research on tribal life and culture. The study was conducted by the undergraduate students of Sociology over a weekend field trip.

#### **Purpose of the Study:**

The purpose of this study was to create an understanding and experience of field research among the students who tried to explore the rural life and culture of West Bengal. The focus was on the *Santhal* tribes and their villages. The students tried to use their sociological imagination (C.W Mills, 1959) along with their observation skills to analyse the everyday reality of the rural tribal people of Shantiketan. The research objectives are as follows:

- 1) A sociological analysis of tribal livelihood
- 2) To analyse the impact of urban tourists on the everyday life of the *Santhals*
- 3) To analyse commercialization of *Sonajhuri Haat*

#### **Methodology:**

The study was conducted by the students of sociology from the Department of Sociology at Gurudas College, Kolkata. The study took place over a weekend field trip to Shantiniktan by a group of seven students from the second year Honours department. The field trip was a joint venture along with students of two other departments namely the departments of Philosophy and Sanskrit. This joint venture called for an exchange of interdisciplinary ideas among the students. The field trip was organized by the faculty members of the three departments respectively between 30<sup>th</sup> April, 2019 to 1<sup>st</sup> May, 2019. The main centre for the study was the weekend *haat* (local market) at *Sonajhuri*, a rural forest area, also known as the *khoai*. The *Khoai* with its lush greenery harbour the tribal villagers. It is also a place where one can witness myriad local tribal art forms and is a popular tourist site. Prior to the field trip, the students of sociology were provided with a brief unstructured interview schedule. The students used the method of observation and participant observation along with the interview schedule for data collection. Data was collected through purposive sampling method. Analysis was made through the method of qualitative analysis and interpretation.

### **The Study:**

The *Khoai* region of *Sonajhuri* holds a *haat* (local weekly market) by the tribal villagers. The *haat* sells various forms of art work and crafts, handmade jewellery from natural products like seeds, wood or even plastic beads and traditional attires like *sarees* and dress materials. It is one of the most popular tourist attraction in Shantiniketan which draws people from all over West Bengal. The *haat* is held on Saturday and Sunday every week. It is also a major source of livelihood for the local villagers whose huts are located within the Sonajhuri forest itself. One can also witness and participate in the tribal dances that are held in the surroundings. The tribal dances attract tourists in large numbers. Although it is arranged for popular entertainment to provide the tourists a taste of the culture of the place, the dancers at times are happy to get some money in the form of appreciation from the passersby. The *Bauls* (a mystical cultural group who perform songs and poems. They are a part of folk music) are yet another major attraction of the site. One cannot miss the famous *Baul* singers performing everywhere in the *Haat*. The Sonajhuri has more female population than the males. Their literacy rate is also very low with poor education. Apart from selling their products at the *haat*, the villagers are mostly agricultural labourers and migrant labourers. They are also engaged in handicraft making. Most of the villagers contribute to the cottage industries through their handicrafts. These products are commercially sold at high prices not only at the *Haat* but also in various districts of West Bengal even Kolkata. The *kantha* stitch (a kind of thread work) is a popular art form in this region and is used in various fabrics for making sarees and other clothes. Even purses, notebooks and other articles have *kantha* work on it. the craftsmanship of the villagers are used for commercialization of their products. However the living conditions of the tribal villages are poor. The labourers work for meagre wages. Many villagers have also moved to other places as migrant workers in different unorganized sectors. The lifestyle of the villagers have undergone changes from their traditional forms by coming in contact with the urban tourists. Tourism is also a major source of income for the people of Shantiniketan and most villagers are happy to entertain their guests through their rich cultural heritage, music and dance. With increasing tourism, the rustic rural culture has definitely found a commercial coating and is in the process of modernizing itself. For instance it is hard to miss the popular *Ram Shyam* tourist resort with all kinds of modern amenities located at the heart of *Sonajhuri*. The Santhal women also perform tribal dance in popular hotel lawns for the tourists which calls for economic exploitation. Overall the tribal village folks are torn between preserving their tradition and heritage and commercialization of of their lives and culture.

### **Conclusion:**

The study was limited in its scope and prospects due to its time constraint. As the students had access to the tribal villagers only at the *haat*, most of the respondents refused a more detailed conversation with the young researchers. This led to several gaps in the data. On the whole the study contributed to developing an idea about the field research method in sociology among the students. It also provided scope for future research in the areas of Baul music, tribal dance, art and craft etc which will further help to ascertain the relationship between folk culture and popular culture.

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short story by Tagore.

and fascinating study  
two articles on Jagadish  
contribution in the field  
of Bose's work on plant  
gestational diabetes.

on the cordial and  
Jagadish Chandra Bose  
other, Sunanda Sanyal  
and respect in their

125 birth anniversary  
on the mathematical

one by P. C. Ray on  
light.

to this volume, Special  
members of *Eshana*,  
final hand-over of the  
printing this volume.

Jonika Mehta  
pa Mukherjee

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**Editor**

The rain hasn't come yet to quell the heat, but *Eshana* volume VIII is ready to go during the summer recess after a period of inactivity.

The interim period between the release of *Eshana*'s new special issue in the socio-economic and cultural ambience is bound to be a period of developments. The question of nationalism and the definition of the nation are heated issues which are giving birth to a new discourse between love for country and class. It is not something new in the context of the anti-colonial movement among the love warriors who fought any chauvinistic glorification of the anti-colonial struggle was not only a necessary part of the struggle but should also imply the freedom from superstitions. The discourse on the nation has become crucial in the present situation in a premier university and a period against a tyrannical discourse.

In this context we deeply mourn the passing of Anandadevi (2014), who brought a rational and exploitative element to the discourse of Indology; she will ever remain an *Anandadevi*, a renowned Indologist, a living product of continuous social movement. In our 'Obituary' section we

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দ্বাদশ সংখ্যা, ২০১৬



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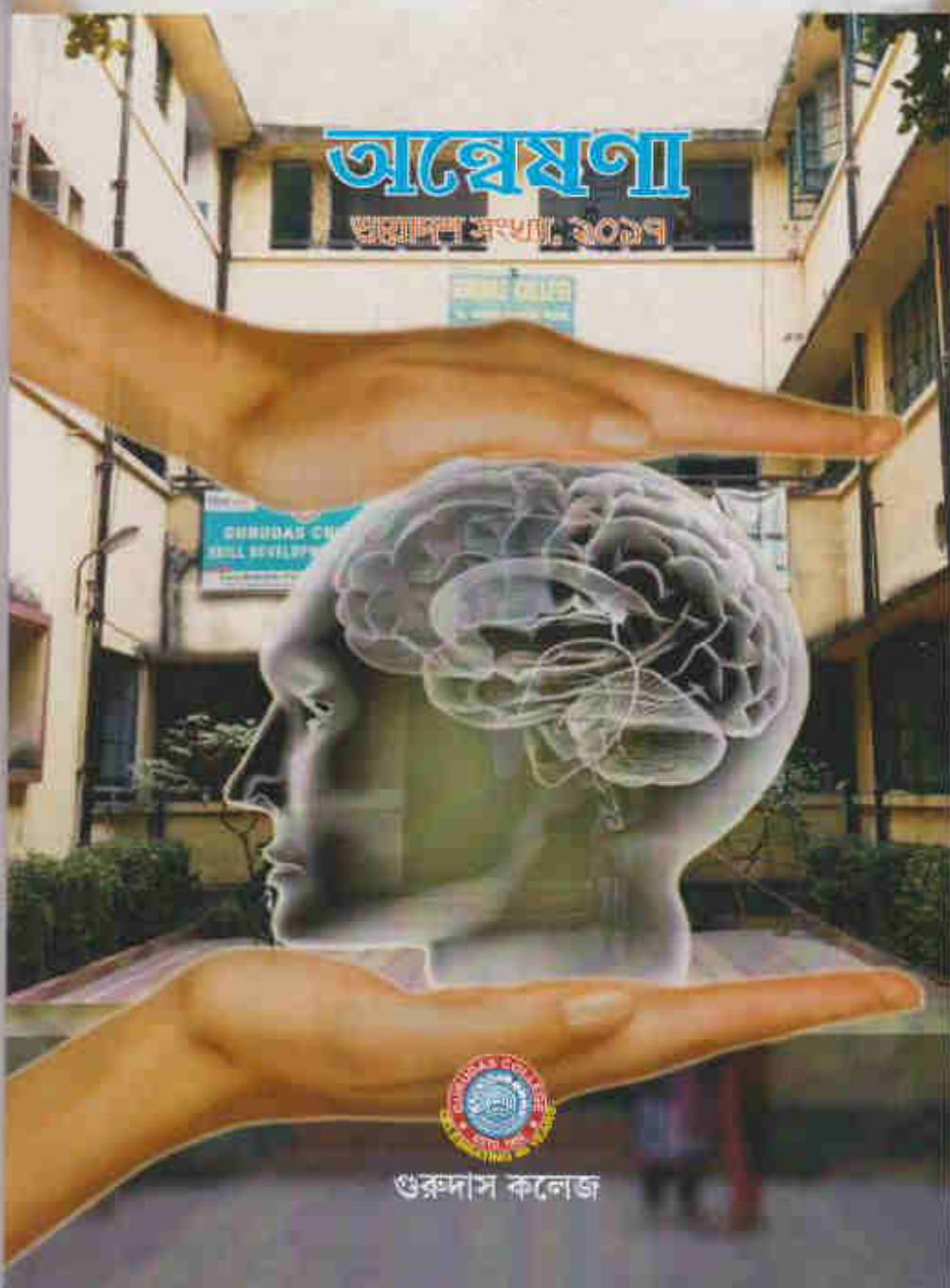
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# অন্বেষণা

প্রকাশনা সংখ্যা: ২০১৭



গুরুদাস কলেজ

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INNOVATIVE PRACTICE  
A LECTURE ON SWADESHI MOVEMENT  
IN BENGAL  
- SAYAN BANERJEE  
DEPARTMENT OF HIST  
THIRD YEAR

SPECIAL GUEST  
LECTURE  
STUDENTS

## **Seminars/Workshops/Talks by In house Faculty:**

- Dept. of English organized a Departmental Seminar and the speakers were Dr. Swati Moitra and Prof. Tanmoy Baghira. (17-18)
- Talk by Prof Aritri Samanta, Department of History, on Relevance of “Bhasa Divas”.(15-16)
- Lecture by Prof. Umashankar Pal, Dept. of Zoology on National Science Day. (15-16)
- Maternal Effects in Flowering Plants by Professor Ripan Chandra Das, Gurudas College. (15-16)
- Talk on Gender Equality by Dr. Sarmistha Ganda Ray, Gurudas College. (15-16)
- Talk on “importance of International Womens’ Day” By Smt. Alekhya Roy. (14-15)
- Talk on “Empowering Women, empowering humanity” by Dr. Gopa Mukherjee. (14-15)

**Innovative Practices of Economics Department**

**Topic: Growth Employment Conundrum in Contemporary India: Interpretations and Misconceptions**

**Speaker: Prof. Subhanil Chowdhury, Indian Institute of Development Studies Kolkata**





### EMPLOYMENT

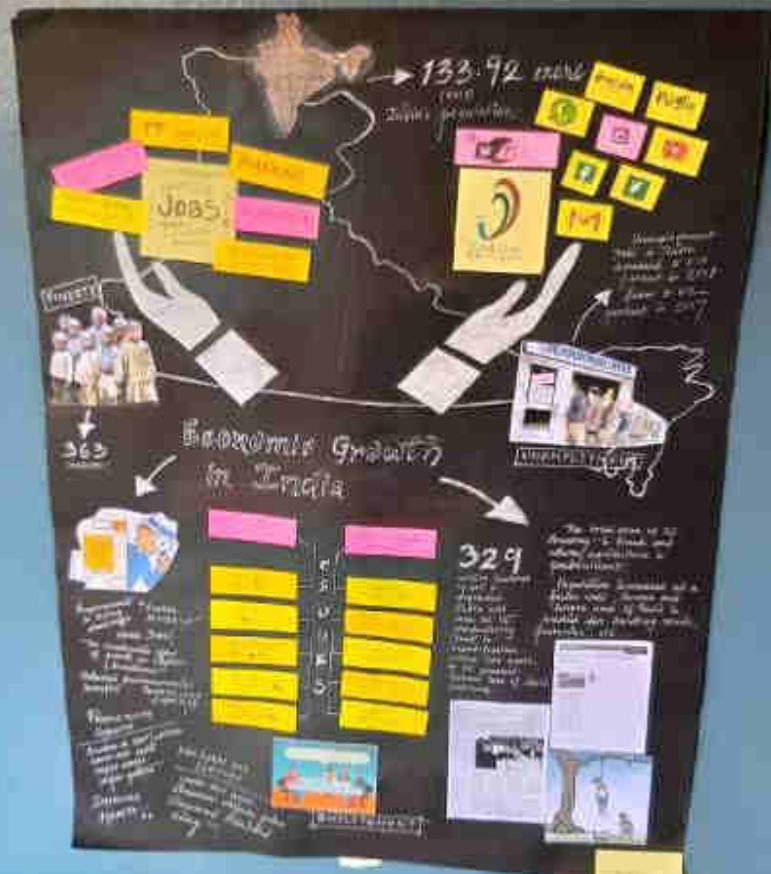
This infographic is titled "EMPLOYMENT" in pink. It features a central pie chart with three segments in orange, green, and blue. To the right, there is a bar graph with four bars of increasing height. The infographic includes several icons: a person with a briefcase, a group of people, and a person at a computer. There are also several text boxes with lines of text, some of which are highlighted in yellow. The overall layout is organized and uses a mix of colors to distinguish different sections.

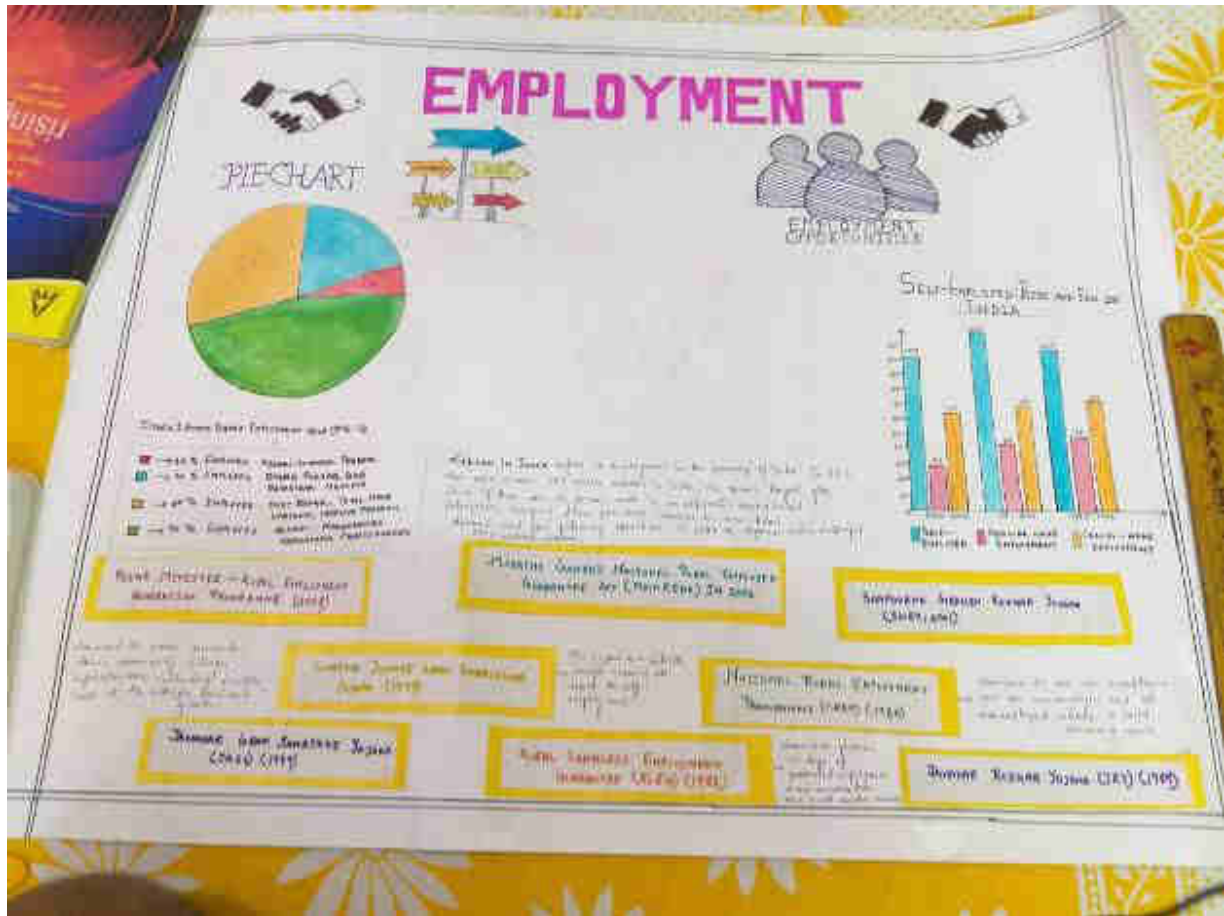
### UNEMPLOYMENT

This infographic is titled "UNEMPLOYMENT" in black. It features a central circular image showing a group of people. To the right, there is a bar chart with five bars of varying heights. The infographic includes several icons: a person with a briefcase, a person with a hand raised, and a person with a hand raised. There are also several text boxes with lines of text, some of which are highlighted in yellow. The overall layout is organized and uses a mix of colors to distinguish different sections.

### EMPLOYMENT AND UNEMPLOYMENT

This infographic is titled "EMPLOYMENT AND UNEMPLOYMENT" in pink. It features a central image showing a group of people. To the right, there is a bar chart with five bars of varying heights. The infographic includes several icons: a person with a briefcase, a person with a hand raised, and a person with a hand raised. There are also several text boxes with lines of text, some of which are highlighted in yellow. The overall layout is organized and uses a mix of colors to distinguish different sections.





**Note**

Prof. Subhanil Chowdhury from Institute of Development Studies Kolkata delivered a talk on ‘Growth Employment Conundrum in Contemporary India: Interpretations and Misconceptions’ on 29<sup>th</sup> March, 2019. He initiated the discussion by introducing the theories of employment and income determination where he spoke about various schools of thoughts and their prescriptions about the issue of unemployment. In the light of this discussion, he proceeded to analyze the Indian context where he focused on the aspect of four-decade high unemployment rate of India and also debunked the misinterpretations and misconceptions around the idea of unemployment. He also raised the challenges faced by the researchers regarding the unpublished data of employment and unemployment. His critical analysis and thought-provoking discussion motivated the students to raise various questions.











# Wall Magazine Bionics

## TOP TEN POSITIVE DISEASES



A collage of ten small images related to various diseases, including people, medical equipment, and biological structures.



## STEM CELL THERAPY



A diagram showing a person's body with a circular area on the back, and a separate diagram showing a cluster of red and white cells.



A pink sheet of paper with text and small diagrams, possibly a summary or a specific article related to the magazine's theme.

**HASHIMOTO** — *Exploring the genetic landscape*  
*from the 1950s*

**A FLOWERING LOON: TIMOTHY RAY**

*which is it?*

The image shows a collection of handwritten notes on various colored papers (yellow, pink, green, orange, red, blue) pinned to a dark background. The notes contain text and diagrams. A small portrait of a man is visible in the top left and top right corners. The notes are arranged in a somewhat organized manner, with some larger blocks of text and some smaller, more fragmented pieces. The overall appearance is that of a research or study board.







Year	Name of teacher	Name of conference/workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Registration Fee	Sanctioned amount
2014-15	Dr. Somen Prasad Chatterjee	13-15.12.14 – Paper presentation at the 2 <sup>nd</sup> International meet on Advances in studies on Cystitis 23.12.14.5.13 – Invited Talk	ICU-CSD, Indrapur	3000/-	3000/-
	Dr. Soumi Mukherjee	29.31.1.15 – Paper presentation in the International Seminar on Botany and Horticulture	Biology and Food Engineering School of Changshu Institute of Technology, China	3000/-	3000/-
	Dr. Alim Uddin	<ul style="list-style-type: none"> <li>• 29-30.11.14 – Paper presentation at the National seminar on Opportunities in Medicinal Plant Research</li> <li>• 4-6.12.14 – Paper presentation at National Symposium of Plant Diversity, Science, Frontier, Utilization and Conservation</li> <li>• 14.2.15 – Paper presentation at National seminar on Aquaculture's Care and Concerns</li> </ul>	<ul style="list-style-type: none"> <li>• School of Natural Product, Jadavpur University, Kolkata</li> <li>• Botanical Society of Bengal in collaboration with Dept. of Botany, Calcutta University</li> <li>• SEBA, Kolkata with 25% and 5% Biodiversity Board, Kolkata</li> </ul>	<ul style="list-style-type: none"> <li>A 2000/-</li> <li>B 2000/-</li> <li>C 1500/-</li> <li>2500/-</li> </ul>	3000/-

Year	Name of teacher	Name of conference/workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Registration Fee	Sanctioned amount
2015-16	Sujata Ray	<ul style="list-style-type: none"> <li>6-5.2.16 - Poster presentation in Recent Trends in Functional Microbiota in Relation to Neurotransmitters and Neurotechnology</li> <li>22-23.2.16 - Poster presentation in Facets of Chemistry in Biology</li> <li>14.3.16 - Poster presentation in Chemistry of Functional Microbiota of Central Intestine</li> </ul>	<ul style="list-style-type: none"> <li>Dept. of Chemistry, St. Paul's Cathedral Mission College, Kolkata</li> <li>Dept. of Chemistry, St. Xavier's College, Kolkata</li> <li>Dept. of Chemistry, Jadavpur University, Kolkata</li> </ul>	A 500- B 300- C 1000- 1500-	1800-
	Dr. Gouran Kumar Patra	2-3.3.16 - Participant in the National Science Meet- 2016	Dr. B. Majumdar Memorial College for Women, Dalkhambowar, Kolkata in collaboration with West Bengal State University, Barasat, State of WBNS	500-	500-
	Asmita Jena	<ul style="list-style-type: none"> <li>5-6.12.15 - Lecture in the 2nd National Convention of SFF India on 'Integrated Approaches for Prevention and Development of Herbal Medicine'</li> <li>23.3.16 - Lecture in UGC sponsored one day seminar on the Global Aspects of Plant Societies with Special Emphasis to Biodiversity and Conservation</li> </ul>	<ul style="list-style-type: none"> <li>Society for Ethnopharmacology, Jadavpur, Kolkata &amp; School of Natural Product Studies, Jadavpur University, Kolkata</li> <li>Dept. of Botany, AICB College, Kolkata in collaboration with Shaheed College, Kolkata</li> </ul>	A 1500- B 200- 1700-	1700-
	Dr. Dipan (Chakraborty)	28.6-2.7.15 - Paper presentation in the 10 <sup>th</sup> World Kinship Conference	International Association of Sankhya Studies (IAS5) & Sankhya Studies Centre Siliguri University, Diphok	1200-	300-
	Dr. Biswajit Adhikari	17.19.3.16 - Paper presentation in MEMORIZONS VI	Harsh Chandra Research Institute, Amritsar	300-	300-
	Aiswaha Bhawan	19.20.3.16 - Poster presentation at National Summit on plant and microbial diversity and utilization	Dept. of Botany, Vijnan Bhawan, Samalpur	2000-	2000-
	Dr. Minu Ch	<ul style="list-style-type: none"> <li>6.10.15 - Paper presentation in UGC sponsored National seminar on 'Development and Displacement: Revisiting the unreflected Continuities'</li> <li>2.12.15 - Paper presentation in the UGC sponsored National seminar on 'Behavioural Modification of Children with Special Needs'</li> <li>5-6.12.15 - Paper presentation in the 2nd National Convention of SFF India on 'Integrated Approaches for Prevention and Development of Herbal Medicine'</li> <li>2-3.3.16 - Poster presentation in the National Science Meet - 2016</li> </ul>	<ul style="list-style-type: none"> <li>History &amp; Economics Dept., St. Paul's Cathedral Mission College - Kolkata</li> <li>Dept. of Education, Jadavpur University, Kolkata</li> <li>School of Natural Product Studies, Jadavpur University &amp; Society for Ethnopharmacology, Jadavpur</li> <li>Dr. B. Majumdar Memorial College for Women, Dalkhambowar, Kolkata. In collaboration with WB State University</li> </ul>	A 200- B 1000- C 1000- D 500- 1200-	3000-

Year	Name of teacher	Name of conference/workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Registration Fee	Sanctioned amount
2016-17	Dr. Mrs. De	<ul style="list-style-type: none"> <li>• 17-18.2.17 - Poster presentation in UGC sponsored National seminar on Recent Advances in Biological Sciences</li> <li>• 6-7.1.17 - Paper presentation in UGC Sponsored National Level Seminar on Recent Advances in Chemical Science and application</li> <li>• 9-10.12.16 - Poster presentation in UGC Sponsored National Level Seminar on Chemistry in Human Life - Current Aspects</li> <li>• 22-23.9.16 - Paper presentation in the UGC Sponsored National Level Seminar on Media, Politics and Economics in post globalized India</li> <li>• 6-7.9.16 - Paper presentation in the UGC Sponsored National Level Seminar on Conservation of Biodiversity and Natural Resources in Sustainable Development</li> <li>• 6-8.8.16 - Paper presentation in the UGC Sponsored National Conference on Teaching Delivery in 21st Century: Prospects and Challenges</li> </ul>	<ul style="list-style-type: none"> <li>• Department of Microbiology, Garasia College in collaboration with IIT B, Adityapur &amp; Durg Dutt Mahapatra College, Kolkata</li> <li>• Department of Chemistry, Vishwagar College for Women in collaboration with Department of Chemistry, Vishwagar Evening College</li> <li>• Department of Chemistry and Microbiology, Goswami College, Kolkata-24</li> <li>• Department of Journalism and Mass Communication, Economics &amp; Political Science, Gurusky College</li> <li>• Department of Zoology, Acharya Pratibha Chandra College, New Barsookpur in collaboration with Balaji Mitra, Maharashtra</li> <li>• Department of Botany, Ballisatpur College, Govt. of West Bengal in academic collaboration with Department of Botany, University of Calcutta.</li> </ul>	<p style="text-align: center;">A 600- B 500- C 400- D 300- E 200- F 100- G 50-</p>	1700-
	Subalim Hosen	14-21.1.17 - Paper presentation UGC -S.P. 1965 II sponsored National Conference on Role of Social Science and Public Policies in Economic Development	Dept. of Economics & Politics, Vastubhanti, Shantiniketan	1000-	1000-
	Arumada Biswas	11-23.22.16 - Poster presentation in the International conference on The Green Planet: past, present and future	Dept. of Botany, University of Calcutta	3000-	3000-
	Antimika Bose	24-25.2.17 - Paper presentation in the International Conference on Computational Intelligence, Communications and Business Analytics	Computer Society of India, Div. V, Technically sponsored by IEEE Kolkata Section, IEEE Computational Intelligence Society Kolkata Chapter & Computer Society of India (Kolkata Chapter)	3000-	3000-
	Ripon C. Das	1-2.1.17 - Workshop on trends on training in microbiological tools and techniques	Govt. Banga University, Medinipur, West Bengal	400-	400-

Year	Name of teacher	Name of conference/workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Registration Fee	Sanctioned amount
2017-18	Dr. Mea De	<ul style="list-style-type: none"> <li>25.3.18 – Paper presentation in the National Seminar on Biodiversity &amp; Conservation Scenario in 21st Century</li> <li>26.1.18 – Poster presentation in the International Seminar on Frontiers in Biological Sciences</li> <li>30.11.17 – Poster presentation in the International conference on Contemporary Health Issue and Environmental Impact</li> <li>8.9.17 – Poster presentation in the National Seminar on Forest Resource Conservation Issues and Management</li> <li>4.9.17 – Poster presentation in the National Seminar on Conservation</li> </ul>	<ul style="list-style-type: none"> <li>West Bengal Govt. School Teacher's Association in collaboration with SPCIA</li> <li>Department of Microbiology, St. Xavier's College (Autonomous) Sponsored by DSI, Govt. of WB</li> <li>Department of Zoology, Sarojini Naidu College for Women in collaboration with Department of Zoology, West Bengal State University and Lincoln University College, Malaysia.</li> <li>Social Environmental and Occupational Association (SEDOA), Kolkata</li> <li>Chauhan Institute of Pharmaceutical Science &amp; Technology and Associated to West Bengal Directorate Board</li> </ul>	A 300/- B 300/- C 300/- D 300/- E 300/- 2500/-	2700/-
	Santini Chatterjee	21-28.8.17 – Poster presentation in the 24th Congress and General Assembly of the IBCR	IBCR, Hyderabad	1000/-	1000/-
	Dr. Biswajit Adhikary	14-23.12.17 – Lecture in the Workshop on High Energy Physics Phenomenology (WHIPP-NV)	Institute of Science Education and Research, Bhubai (ISIHER)	2000/-	2000/-
	Dr. Rouni Ray	21-22.12.17 – Lecture in the 12 <sup>th</sup> National Conference on Solid State Ionics	Birla Institute of Technology & Science, Pilani	5000/-	5000/-
	Dr. Swati Mukherjee	16-20.1.18 – Paper presentation in the 62 <sup>nd</sup> AIETC	Omura University, Hyderabad	3000/-	3000/-
	Aravinda Ghosal	22-23.2.18 – participated in a national level workshop on Herbalism Techniques and Plant Medicinalities	Botanical Survey of India & Ramkrishna Mission, Vivekananda Centenary College, Howrah	1000/-	1000/-
	Sumit Deep Das	<ul style="list-style-type: none"> <li>22-24.6.17 – Paper presentation in the International seminar on Human Resource Management and Develop. in the Digital Age</li> <li>2.3.17 – Paper presentation in the International Conference on Emerging Perspective in Commerce, Economics and Management Policies for Better World (ICCEPM 2017)</li> </ul>	<ul style="list-style-type: none"> <li>Department of Management, North Eastern Hill University, Tura Campus, Tura, Meghalaya</li> <li>Dept. of Commerce and Business Administration, St. Xavier's College, Kolkata</li> </ul>	A 1000/- B 1000/-	2000/-
	Jayanti Saha	24.3.18 – Paper presentation at 3 <sup>rd</sup> international seminar on Gender, Environment and Culture in Indian History	Dept of History, Gauhati University	800/-	800/-

Year	Name of teacher	Name of conference/workshop attended for which financial support provided	Name of the professional body for which membership fee is provided	Registration Fee	Sanctioned amount
2018-19	Santosh Chatterjee	3-6.2.2018 - Participation in the Regional young academics' meet	Presidency University	1000/-	1000/-
	Triparna Bhattacharya	15-17.2.18 - Paper presentation in the International Conference on Finance and Applied Economics, 2018	Membership from Mumbai Institute of Management Education Research and Training, Pune	3000/-	3000/-
	Ashir Saha	24-25.3.18 - Paper presentation at the Categories of Understanding mapping - Explorations into Travel Narratives	Amrita Centre for Research and Development, Kochi	1200/-	1200/-
	Parvati Majumdar	03.10.18 - Status of GEM in Society, The Indian and Global Perspective	Plessey College in collaboration with Cathy St. Watson's studies, University of Wollaton	800/-	800/-
	Chandni Deep Rai	26-29.3.18 - Paper presentation at National Seminar on Advances in Business and Management	Dept of Commerce, University of South Bengal	1000/-	1000/-
	Shakti Mehta	21-24.3.19 - Paper presentation in Association for Asian Studies 2019 Annual Conference	Denver, USA	3000/-	3000/-
	Arshina Dasgupta	23-24.2.18 - Paper presentation at North 7th International Library Conference	University of Baghdad	1000/-	1000/-
	Sanchita Ray	12.2.19 - Paper presentation at 17th International Conference on History and Heritage	Indian Academy, Dhaka	1500/-	1500/-
	Pratik Chakrabarty	9-13.7.18 - Paper presentation at 17th world Services Conference	University of British Columbia, Canada	3000/-	3000/-
	Sapindrupa Bhargava	15-16.5.18 - Paper presentation at 8th International Conference of the American Studies Network	Loughborough University, UK	3000/-	3000/-
	Jaydeep Chandra	21-24.2.18 - Participation in the international conference on KDDA	Digital Library Association and Kankarjhara Museum, Varanasi, India	800/-	800/-
	Mita, De	14-16.2.18 - Oral presentation and poster at 8th India Biodiversity meet 2018 (international conference)	ISI, Kolkata	2500/-	2500/-
	Anantika Bava	7-08.18 - Paper presentation at International Conference on Materials, Applied Physics and Engineering	Mumbai Pradesh	3000/-	3000/-

SL No .	Department	Name of the Conference	Title of the Paper Presented	Teacher's Name	Place of conference	Date	National/International level conference	Paper Presented/ Participated
1	Bengali	UGC Sponsered National Level Seminar	Sahitya Bichare Paribesh Kendrick Drishtivangi	Krishna Das	Department of Bengali, Dinabandhu Andrews College, Garia in collaboration with Department of Bengali & Environmental Science, Vivekanda College, Thakurpukur, Kolkata	8-9 December, 2011	National level conference	Paper Presented
2	Bengali	UGC Sponsored Two days National Level Seminar	Evolution of Women's consciousness, as reflected in Sanskrit and Bengali literature: A Sociological Analysis	Krishna Das	Department of Sanskrit, Bengali & Sociology, Jogamaya Devi College In collaboration with Department of Sanskrit, Bangali & Sociology,	2-3 December, 2011		Paper Presented

					Asutosh College			
3	Bengali	UGC Sponsered National Level Seminar	Rabindranath O Samakalin Prashanga	Krishna Das	Bangali Department, Bidhannagar Sarkari Mahavidyalay in collaboration with Chittaranjan College, Kolkata	9-10 February, 2012	National level conference	Paper Presented
4	Political Science	<b>UGC sponsored National Seminar on South Asian Security in the 21st Century</b>	'Rethinking the Indo- Pak Ties in the Context of Democratic Peace Thesis'	Somali Mukherjee	Organized by: Department of Political Science Surendranath College for Women in collaboration with West Bengal Political Science Association	13th - 14th February, 2012	National Seminar	Paper Presented

5	Bengali	UGC Sponsered National Level Seminar	An introspection of Bengali Language and Literature outside West Bengal (in India) and its Destiny	Krishna Das	Bengali Department, Sarsuna College	17-18 February, 2012	National level conference	Paper Presented
6	Bengali	Dept. of Bengali Language & Literature & Manuscript Resource Centre (NMM)	Manuscript Study Initiated by Tagore and Study on Tagore's Manuscripts	Krishna Das	Department of Bengali Language & Literature and Manuscript Resource Centre, University of Calcutta	19-21 March, 2012	National Level Seminar	Paper Presented
7	Bengali	Rabindranath Puthicharha O Rabindra Pandulipi Path- Jatio Oitirjho	Rabi Thakurer Pandulipite Puthichorchar Probhab]	Krishna Das	10 No. Kokho, Ashutosh Bhavan, College Street Prangan, Calcutta University	19-21st March, 2012		Paper Presented

8	Bengali	Two-day International Seminar on two thrust areas: Tagore Study in New Perspective & Marginal Life, Literature and culture of Sundarban		Krishna Das	Department of Bengali Language & Literature Departmental Research Support –I Under SAP, Sponsored by UGC	29-30th March, 2012	International Seminar	Participated
9	Bengali	National Seminar on Deconstruction of Rabindranath's Creations: Perspective of Distortions		Krishna Das	Ashutosh Hall, University of Calcutta	12-May-12	National Seminar	Participated
10	Bengali	Importance of Early Indian Cultural Heritage in the making of a Better		Krishna Das	Indian Museum, Kolkata in Collaboration with North American Institute for	23-25th May, 2012	International Seminar	Participated

		World			Oriental and Classical Studies, U.S.A. (NIOS)			
11	Bengali	Cultural Heritage and Museum Studies		Krishna Das	Indian Museum, Kolkata	22nd May–24th November, 2012	Workshop	Participated
12	Bengali	National Symposium on Society, Nation & Rabindranath		Krishna Das	Bharatiya Bhasha Parishad Auditorium, Kolkata	23-24th June, 2012		Participated
13	Bengali	Introduction to Indian Epigraphy and Paleography		Krishna Das	Indian Museum, Kolkata	20th November, 2012 – 25th February, 2013	Workshop	Participated

14	Bengali	Swami Vivekananda Jonmer Sardhosho toborsho Upolokhe Ayojito Alochona Porbo 'Sardosho toboarshe Swami Vivekananda: Smarane Monone'		Krishna Das	Bengali Department, Calcutta University	31 <sup>st</sup> December, 2012		Participated
15	Bengali	Translator's Orientation Programme in Bangla		Krishna Das	Vivekananda Hall, Jadavpur University, Kolkata	17 <sup>th</sup> – 20 <sup>th</sup> December, 2012	Workshop	Participated
16	Bengali	Annual Conference of the Paschim Banga Itihas Samsad	Krittibash Ramayaner Mudron Itihaser Guruttopurno Odhai : Ekti Shomikha	Krishna Das	Lady Brabourne College, Kolkata	24-26 January, 2013		Paper Presented
17	Bengali	Sukumar Rai er 125 tomo Jonmo Upolokhe ayogito Jatio Alochona	Shukumar Rain er Lokhone Shoktishel: Ek notun prakash	Krishna Das	Bengali Department, Calcutta University	26-Feb-13		Paper Presented

		Sabha						
18	Bengali	AntoJartik Alochona Shobha, Shotobors her AloI Gitanjali O Novel Prapti	'Gitanjali' O 'Song Offerings' er Binnashkrom	Krishna Das	Bengali Department, Calcutta University	7-8 August, 2013		Paper Presented
19	Bengali	The Third International Congress of Bengal Studies 2013	Abonindronat h Thakur : LokoJ Ramayaner Nabarupokar	Krishna Das	University of Calcutta	19-22 November, 2013		Paper Presented
20	Bengali	International Seminar on 'Muktochintar Dishari Rabindranath'		Krishna Das	Bengali Department, Calcutta University	25th March, 2013	International Seminar	Participated
21	Mathematics	<b>Workshop on Quantum Integrable Systems</b>	Integrability of Discretization of Controlled Euler Top	Supriya Mukherjee	Organized by: S N Bose National Center for basic Sciences and NMI, Venue- S	2nd - 6th Dec, 2013	Workshop	Delivered a Talk

					N Bose National Center for basic Sciences			
22	Physics	<b>National seminar on “Electron dynamics in magnetic material 2013”</b>		Ruma Ray	Organised by: Dept. Of Physics ,Vidyasagar University and I.T.R. and PEX(DRDO ), Chandipur	10th - 13th April, 2013	National Seminar	Participated
23	Political Science	<b>UGC sponsored National Seminar on Indian Nationhood and Nationalism: Perspectives, Representations and Reflections</b>	‘Causes and Curse of communalism: An eternal challenge to National Building in India’	Somali Mukherjee	Organized by: Vidyanagar College in collaboration with Sadhan Chandra Mahavidyalaya	28th - 29th September, 2013	National Seminar	Paper Presented
24	Bengali	Two Day International Seminar on Social inequality and	Sathi Tahader Kotha	Krishna Das	Department of Bengali, Tripura University in Collaborat	16-17 January, 2014	International Seminar	Paper Presented

		Literature			ion with ICSSR, New Delhi			
25	Bengali	Paschim Banga Itihas Samsad	-'Ramabhishek Natak'- er Punarabritti- Ek Bishesh Bartabahak	Krishna Das	P.N. Das College, Palta, North 24 Parganas	24-26 January, 2014		Paper Presented
26	Bengali	National Seminar on Women and Media: Challenges and Opportunities	Narir Bigyapass O Bigyapasse Nari	Krishna Das	Assam University, Silchar, India	3-4 March, 2014	National Seminar	Paper Presented
27	Bengali	International Seminar on "Human Values In Indian Perspective"	Hirendranath Datta Sampadita Krittibasi Ramayan: Paribarik O Samajik Mulyabadh	Krishna Das	Sidho-Kanho-Birsha University (SKBU)	29-30 April, 2014	International Seminar	Paper Presented
28	Bengali	UGC Sponsored National Seminar on Rev. Krishnamohan Banerjee and Bengal		Krishna Das	Baruipur College, Purandarpur Math, South 24 Parganas, West Bengal	2nd April, 2014	National Seminar	Participated

		Renaissance						
29	Bengali	National Seminar on two thrust areas: Marginal Life, Literature and Culture of Sundarban, Changing Faces of Calcutta : 19 <sup>th</sup> -21 <sup>st</sup> Century		Krishna Das	Department of Bengali Language and Literature, University of Calcutta	31st March, 2014	National Seminar	Participated
30	Bengali	National Seminar on Copyright		Krishna Das	Chandramukhi Kadambini Sabhagriha, CU Central Library, College Street Campus, University of Calcutta	23rd April, 2014	National Seminar	Participated

31	Bengali	Mythic and Folkloric Re-morphing in some Classical and Modern Literary Texts		Krishna Das	The Asiatic Society	18th – 22nd March, 2014	Workshop	Participated
32	Bengali	Philosophy of Tantra and Literature		Krishna Das	Folkloristic Education & Research Institute	19th - 21st September, 2014	Workshop	Participated
33	Bio-Chemistry	<b>1<sup>st</sup> International Science &amp; Technology Congress (IEMCONGRESS – 2014)</b>	Molecular docking and Ligand – Protein interaction study of the expansion protein ATEXPA23 and EXLX1	Anindya Bhattacharya	Venue: Science City Auditorium, Kolkata, India	28th – 30th August, 2014	1 <sup>st</sup> International Science & Technology Congress	Paper Presented
34	Bio-Chemistry	<b>National Conference on Electrical, Electronics, and Computer Engineering</b>	( A Triennial Event of IEEE Kolkata Section), IEEE CALCON 2014	Anamika Basu	Venue: Hotel Park Prime, Kolkata	7 <sup>th</sup> – 8 <sup>th</sup> November, 2014	National Conference	Paper Presented

35	Bio-Chemistry	<b>International Conference on Functional Materials</b>		Rajdeep Mukherjee	Materials Science Centre, Indian Institute of Technology, Kharagpur	5 - 7th February, 2014	International Conference	Paper Presented
36	Botany	<b>Hands-on Training on Palaeobotanical and Palynological Techniques</b>		Anweha Biswas	Department of Botany, University of Calcutta	21st - 28th April, 2014	Workshop	Participated
37	Botany	<b>Regional Workshop on Career Advancement Scheme (CAS)</b>		Mitu De	Organized by: Internal Quality Assurance Cell (IQAC), Scottish Church College	12th August, 2014	Regional Workshop	Participated
38	Botany	<b>Taxonomy &amp; Biosystematics of Vascular Plants</b>		Mitu De	Organized by: Taxonomy & Biosystematics Laboratory, Department of Botany,	14th – 22nd July, 2014	Workshop VII	Participated

					University of Calcutta			
39	Com merce	<b>National Seminar on 'Service Sector and Indian Economy in Post Reform Era'</b>	'Tea Tourism – a present scenario and future prospects in the tea garden of Darjeeling and Doars'	Gaurav Deep Rai	Organized by: Department of Commerce and Business Administration, North Bengal St. Xavier's College	22nd September, 2014	National Seminar	Paper Presented
40	History	<b>'India's Constitutional Development since the 1950s: It's Socio-political and Economic Dimension'</b>	'Crime against Women and Constitutional Safeguards in India: A Glance on West Bengal State'	Jamuna Subba	Organized by: Department of Political Science, Dewan Abdul Gani College, Harirampur, Dakshin Dinajpur	September, 2014	UGC Sponsored National Seminar	Paper Presented
41	Mathematics	<b>One day State Level Seminar on Fundamental Aspects in Mathematics &amp;</b>	Basics of Linear Programming	Supriya Mukherjee	Organized by: Department of Mathematics, Nistarini College, Purulia, Venue:	2nd December, 2014	State Level Seminar	Resource Person

		<b>Applications</b>			Nistarini College, Purulia			
42	Mathematics	<b>National Seminar on Mathematics to Commemorate the Sesquicentenary of Sir Asutosh Mookerjee</b>		Supriya Mukherjee	Organized by: Department of Mathematics, SidhoKanhoBirsha University	25th April, 2014	National Seminar	Participated
43	Mathematics	<b>One Day National Seminar on Photonics and Fibre Optics Communication</b>		Supriya Mukherjee	Organized by: Department of Physics, SidhoKanhoBirsha University	12th November, 2014	National Seminar	Participated
44	Mathematics	<b>International conference on Current Developments in Mathematics and Mathematical</b>		Supriya Mukherjee	Organized by: Calcutta Mathematical Society, Venue: AE-374, Salt Lake, Kol- 64,	19th - 21st December, 2014	International Conference	Participated

		Sciences			India			
45	Mathematics	<b>RMS-NCM Teachers' Enrichment Workshop on Complex Analysis and Topology</b>		Supriya Mukherjee	Organized by: Kalna College in collaboration with TIFR, & IIT Bombay and supported by ARSI Foundation	23rd to 27th December, 2014	Workshop	Participated
46	Physics	<b>DAE-BRNS 5th Interdisciplinary Symposium on Materials Chemistry (ISMC - 2014)</b>		Abhra Giri	Organized by: Chemistry Division, BARC & Society for Materials Chemistry, Mumbai, Supported by: Board of Research in Nuclear Sciences DAE, Govt. of India, Venue- Bhabha Atomic	9th – 13th December, 2014	Symposium/Conference	Participated

					Research Centre, Mumbai			
47	Physics	<b>National seminar on “Physics of advance optical material and photonics 2014”</b>		Ruma Ray	Organised by: Dept. Of Physics, Vidyasagar University, and ITER & Siksha ‘o’ Onusandhan University, Bhubaneswar	8th - 11th April, 2014	National Seminar	Participated
							National	Presented
							National	Presented
48	Zoology	<b>Central Institute of Fisheries Education</b>	Training Programme on Freshwater Aquaculture	Aziz Hasan Mondal	Venue: Central Institute of Fisheries Education, (Deemed University, I.C.A.R.), Versova, Mumbai, India	4th – 10th July, 2014	Training Programme	Audience

49	Zoology	<b>One Day DSJ, Govt. of W.B. Sponsored Workshop on "Field Guide Faunal Diversity Study"</b>		Saurav Dutta	Organized by: Department of Zoology for UG and PG Studies, Serampore College, Hooghly, West Bengal	22nd March, 2014	Workshop	Audience/ Participate
50	Zoology	<b>National Seminar on Research Updates in Animal Science : 2014</b>		Saurav Dutta	Organized by: Department of Zoology, University of Calcutta	29th March, 2014	Seminar	Audience
51	Micro Biology	<b>DuShangxiang Tang lecture of 45th series (2014-15)</b>	Food Additives and Type I Hypersensitivity	Samrat Chatterjee	Organized by: Changshu Institute of Technology, China	2014-15	International Seminar	Invited lectures/ Chairing the session or presentation for conferences/symposia
52	Micro Biology	General lecture (2014-15)	Mutation Vs Polymorphism	Samrat Chatterjee	Organized by: Changshu Institute of Technology, China	2014-15	International Seminar	Invited lectures/ Chairing the session or presentation for conferences/symposia

53	Bengali	Bangla Shahitto O Bangladesher Onanno Bhashar Shahitto Bishayak Antojartik Conference	Tomar Sodesh Lut Hoye Jai Pratidin Pratirate	Krishna Das	Bengali Department, Rajshahi University	13-14 March, 2015		
54	Bengali	Departmental Research Support- II Under SAP, Sponsered by UGC	Changing Faces of Calcutta: From 19 <sup>th</sup> to 21 <sup>st</sup> Century	Krishna Das	Department of Bengali Language & Literature, University of Calcutta	26th March, 2015		Paper Presented
55	Bengali	Chithipatre Sahitya O Samaj	Mahakabi O Madhukabi: Prasanga Jakhan Shakuntalar Patra	Krishna Das	Udayshankar Sabha griha, Jorasanko Prangan	27th March, 2015	International Seminar	Paper Presented
56	Bengali	The 4 <sup>th</sup> International Congress of Bengal Studies	Battala And the Various	Krishna Das	Tokyo University of Foreign Studies, Tokyo, Japan	12-13 <sup>th</sup> December, 2015	International Seminar	Paper Presented
57	Bengali	State Level Seminar on the thrust area: Marginal		Krishna Das	Department of Bengali Language & Literature, University	21st March, 2015	State Level Seminar	Participated

		Life, Literature and Culture of Sunderban			of Calcutta			
58	Bengali	First Annual Conference on History	Satinath Bhadurir Dhonrai Charit Manas: Gandhi Myther O-binirmito Sahitya Bhasya	Saptarsi Maity	Organised by: Paschimbanga Anchalik Itihas O Loksanskriti Charcha Kendra, at Baruipur, Kolkata-700 144	18-19th July, 2015	Conference	Paper Presented
59	Bio-Chemistry	<b>International Symposium on Polymer Science and Technology (MACRO 2015)</b>		Rajdeep Mukherjee	Indian Association for the Cultivation of Science, Kolkata, India	23-26 January, 2015		Poster Presented
60	Botany	<b>Environmental Impacts on Health: Towards a Better Future</b>		Anwesha Biswas	Bangabasi Morning College, Kolkata	27-28th March, 2015	Workshop	Participated

61	Botany	<b>Gender, Politics and Literature : A Multidimensional Approach</b>		Anweha Biswas	Departments of Political Science and English, Gurudas College in collaboration with Women's Studies Centre, Rabindra Bharati University	2nd April, 2015		Participated
62	Botany	<b>International Seminar on Environmental Management and Green Energy: Its recent trend and development</b>		Anweha Biswas	Ramkrishna Mission Vivekanda Centenary College, Rahara in collaboration with Indian Institute of Social Welfare and Business Management and Hochschule Neu-Ulm University of Applied Sciences, Germany	16th October, 2015	International Seminar	Participated

63	Botany	<b>One-day Seminar on Overview Of Capital Market</b>		Mitu De	Gurudas College	25th August , 2015		Participated
64	Botany	<b>UGC Sponsored National Seminar on 'Behavior Modification of Children with Special Needs'</b>	Visual supports for modifying challenging behaviours in individuals with Autism Spectrum Disorder (ASD)	Mitu De	Department of Education, Jadavpur University, Kolkata in collaboration with Arogya Sandhan Charitable Trust, Kolkata-700 075	2 <sup>nd</sup> December, 2015	National Seminar	Paper Presented
65	Botany	<b>International Seminar on Environmental Management and Green Energy: Its recent trend and development</b>		Mitu De	Ramkrishna Mission Vivekananda Centenary College, Rahara in collaboration with Indian Institute of Social Welfare and Business Management and Hochschule Neu-Ulm University	16th October, 2015	International Seminar	Participated

					of Applied Sciences, Germany			
66	Botany	<b>UGC Sponsored National Seminar, Development and Displacement: Revisiting the unresolved contradictions</b>		Mitu De	St. Pauls Cathedral Mission College, Kolkata	6th October, 2015	National Seminar	Poster Presented
67	Botany	<b>National Seminar on Higher Education : What India Needs?</b>		Mitu De	Organized by: International Benevolent Research Foundation, Kolkata in association with Confederation of Indian Universities, New Delhi	5th September, 2015	National Seminar	Participated

68	Botany	<b>UGC Sponsored National Seminar on 'Behaviour Modification of Children with Special Needs'</b>	Visual supports for modifying challenging behaviours in individuals with Autism Spectrum Disorder (ASD)	Mitu De	Organized by: Department of Education, Jadavpur University, Kolkata in collaboration with Arogya Sandhan Charitable Trust, Kolkata-700 075	2nd December, 2015	National Seminar	Paper Presented
69	Commerce	<b>National Conference on Human Resource Development (NCHRD-2015)</b>	An empirical analysis: Quality of work life of school teachers of the Darjeeling hills	Gaurav Deep Rai	Organized by: Faculty of Commerce, B.H.U in association with Indian Council of Social Science Research (ICSSR), Ministry of Human Resource Development (MHRD), New Delhi	14th – 15th February, 2015	National Conference	Paper Presented

70	Com merce	<b>National Seminar on Backwardness, Development and Communities in North Bengal</b>	Tea Tourism: An Alternative Strategy for Sustainable Regional Development in the Tea Estates of Darjeeling	Gaurav Deep Rai	Conference Hall of the Department of Sociology, University of North Bengal	26th – 27th March, 2015	National Seminar	Paper Presented
71	Com merce	<b>ICSSR Sponsored National Conference on Interrogating Development: Regional and Sub-Regional Trends in India in the Era of Globalization</b>	Tea Tourism: An Unconventional Strategy Tea Gardens of Darjeeling & Dooars in Post Literal Era	Gaurav Deep Rai	St. Joseph's College, North Point, Darjeeling	29th – 30th March, 2015	National Conference	Paper Presented
72	Com merce	<b>UGC Sponsored National Seminar on Women Empowerment in India: Opportunities and Challenge</b>	Empowering Women At Work: A Case Study Of Darjeeling School Teachers	Gaurav Deep Rai	Organized by: Department of Political Science, Sitalkuchi College, Sitalkuchi Cooch Behar, West	27th – 28th November, 2015	National Seminar	Paper Presented

		s			Bengal in collaboration with Department of Political Science, Alipurduar Mahila Mahavidyalaya, Alipurduar, West Bengal			
73	Commerce	<b>International Conference on Modern Trends in Social and Basic Sciences (MTSBS-2015)</b>	An Empirical Understanding of Quality Work Life of Teachers of Darjeeling: Measurement and Parameters	Gaurav Deep Rai	Organized by: Alipurduar College, Alipurduar, West Bengal, India	27th – 28th March, 2015	International Conference	Paper Presented
74	Commerce	<b>Seminar on 'Gender, Politics and Literature : A Multidimensional Approach'</b>		Tanima Kundu	Organized by: Departments of Political Science and English, Gurudas College in collaboration with Women's Studies Centre,	2nd April, 2015	Seminar	Participated

					Rabindra Bharati University			
75	History	<b>'Literature and Marginality Issues and Perspectives'</b>	'Status of Women in Ancient India with Special Reference of Vedic Age'	Jamuna Subba	Organized by: Department of English, Balurghat College, Balurghat, Dakshin Dinajpur	March, 2015	National Seminar	Paper Presented
76	History	<b>'Theory and Practice of Human Rights : The Indian Context'</b>	'Domestic Violence Against Women: A Study from the Human Right Perspective'	Jamuna Subba	Organized by: Department of Political Science, Sitalkuchi College, Coochbehar	March, 2015	UGC Sponsored National Seminar	Paper Presented
77	History	<b>Annual Conference of the Pashchim banga Itihas Samsad</b>	'Banglar Biranganara'	Sanchari Ray	Organized by: Paschim banga Itihas Samsad	January, 2015	National Conference	Paper Presented
78	Mathematics	<b>Mathematics and its Impact on Natural Sciences</b>		Supriya Mukherjee	Organized by: Bangabasi Morning College & Surendr	11th & 12th September 2015		Participated

					anath College, Venue: Bangabasi Morning College			
79	Physic s	<b>A one-day seminar on “Basic Physics to contempo rary Research”</b>	Fractals using Chaos Game	Abhra Giri	Organized by: Departme nt of Physics, Jadavpur University, Venue: Jadavpur University, Kolkata, India	18th March , 2015	Seminar	Poster Presented
80	Physic s	<b>Condense d Matter Days 2015</b>		Abhra Giri	Organized by: Departme nt of Physics, Visva- Bharati, Santiniket an	27th – 29th August , 2015	Symposium/ Conference	Paper Presented
81	Physic s	<b>Condense d Matter Days</b>	Analysis of Pore size and distribution of Gamma irradiated Poly[Ethylene Oxide] : A comparative approach using BET and SEM and correlation	Ruma Ray	Organized by: Departme nt of Physics, Visva- Bharati, Santiniket an, India	27th – 29th August , 2015		Paper Presented

			with film impedance					
				Ruma Ray				Presented
				Ruma Ray				Presented
82	Political Science	<b>Gurudas College seminar on Gender, Politics and Literature : A multidimensional Approach</b>		Somali Mukherjee	Organized by: Gurudas College In collaboration with Women's Study Centre, RBU	2nd April 2015	Seminar	Participated
83	Sanskrit	<b>16th World Sanskrit Conference</b>	A Quest: Identifying the 'Original' Ātreyaśikṣā	Deepro Chakraborty	Venue: Bangkok	28th June - 2nd July 2015	International Conference	Paper Presented
84	Statistic	<b>Workshop on Basic Statistical methods and R-programming</b>		Mousumi Bandyopadhyay	Organized by: Agricultural & Ecological Research Unit, Indian	25th – 29th May, 2015	Workshop	Participated

					Statistical Institute, Kolkata-700 108, Venue: Agricultural & Ecological Research Unit, Indian Statistical Institute			
85	Zoology	<b>ICAR-Central Institute of Freshwater Aquaculture</b>	Training Programme on “Application of Nanotechnology in Aquaculture & Fisheries”	Aziz Hasan Mondal	Venue: Fish Health Management Division, ICAR – Central Institute of Freshwater Aquaculture, Kausalyanganga, Bhubaneswar, Odisha	24th – 28th August, 2015	Training Programme	Audience
86	Zoology	<b>One-Day National Seminar on Molecular Aspects of Human</b>		Saurav Dutta	Organized by: Department of Zoology, University of	31st January, 2015	National Seminar	Audience

		<b>Diseases</b>			Calcutta			
87	Zoology	<b>Advanced Seminar on Research Update : 2015</b>		Saurav Dutta	Organized by: Department of Zoology, University of Calcutta	31st March , 2015	Seminar	Audience
88	Zoology	<b>One-day Symposium on “Medicinal Chemistry and its Perspectives”</b>		Suman Purohit	Organized by: Immunology Laboratory, Department of Zoology, University of Calcutta, Venue: Centre for Research in Nanoscience and Nanotechnology, Kolkata	17th November, 2015	Symposium/Conference	Audience

89	Zoology	<b>One-Day National Seminar on Molecular Aspects of Human Diseases</b>		Suman Purohit	Organized by: Department of Zoology, University of Calcutta	31st January, 2015	National Seminar	Audience
90	History	<b>'Creativity Thrives under Pressure'</b>	'Unfettered Mind: some glimpses from memoirs in colonial and post-colonial Bengal'	Gopa Mukherjee	Organized by: Jointly organized by Setu Pakashani and Derozio Memorial College	2015	International Seminar	Paper Presented
91	History		'Middle-class Women and Anti-colonial Movements in Bengal'	Gopa Mukherjee	Organized by: The Department of Political Science and the Department of English, Gurudas College, in collaboration with Centre for Women's Studies, Rabindrabharati University	2015	College-level Seminar	Paper Presented

92	Physics	<b>Basic Physics to Contemporary Research</b>	Influence of gamma radiation on the molecular weight distribution and related properties of a polymer: study through simulation and experiment	Ruma Ray	Basic Physics to Contemporary Research, Kolkata, India	2015	Conference	Participated
93	Bengali	Pashim Banga Sarkar er Uccha Sikha Daftar Ayajunukale Dudiner Alochana chakra	Sadhinotar Parabarti dui banglar anchalik sahyacharcha	Dipanjan Mandal	Diamond Harbour Womens' University	8-9 November, 2016		Paper Presented
94	Bengali	UGC Sponsored International Seminar on Bengali Fiction: 19 <sup>th</sup> & 20 <sup>th</sup> Century	Bangla Kathasahitya: Unish – Bish	Gayatri Acharya	Kabijanani Sarada Sabha Kaksha, Marakatkunja Prangan	15th – 16th March, 2016	International Seminar	Paper Presented
95	Bengali	UGC Sponsored International Seminar on Rabindra	Shonar Tori O Boishnob Kobita: Bhabepathantore	Gayatri Acharya	Organized by: Centre for Studies & Research on Tagore, Rabindra	29th March, 2016	International Seminar	Paper Presented

		Sahityer Pathantor			Bharati University, Kolkata			
96	Bengali	UGC Sponsored National Seminar "Media Economics and Politics in Post – Globalization India"	Anandabazar Patrikar Rabibasariyo : Samay Rajnitir Prasar O Prabhabe	Gayatri Acharya	Organized by: Gurudas College, Kolkata in collaboration with Mahanirban Calcutta Research Group, Venue: Gurudas College, Kolkata	22nd – 23rd September, 2016	National Seminar	Paper Presented
97	Bengali	Bangla Charcha, Abahaman Kaler Bangla Shahitto	Shadhinota Purbo Jug e Bohiborng e Mudritto Krittibashi Ramayan	Krishna Das	Beharapara, Baruipur, Kolkata-700 144	21st February, 2016		Paper Presented
98	Bengali	UGC Sponsered National Level Seminar	Bish Shatarke Shat-Shotttor Dorshok: Shomoi O Srishti	Krishna Das		25-26 February, 2016		

99	Bengali	Jatiyo Alochana Sabha 'Charjapod O SreeKrishnoKirton Grontho Prokasher Shotobors ho'		Krishna Das	Department of Bengali Language & Literature, University of Calcutta	8-9th March, 2016	National Seminar	Participated
100	Bengali	Bengali Language & Literature: A Methodical Approach to Research		Krishna Das	Swami Vivekananda Research Centre, Ramkrishna Mission Vidyamandira	27th August – 3rd September, 2016	Workshop	Participated
101	Bio-Chemistry	<b>UGC Sponsored National Level Seminar on 'Chemistry in Human Life – Current Aspects'</b>		Anindya Bhattacharya	Organized by: Departments of Chemistry and Microbiology, Gurudas College, Kolkata in collaboration with IISER, Kolkata	9th – 10th December, 2016	National Level Seminar	Poster Presented

102	Bio-Chemistry	<b>One Day Workshop on Comparative Genomics and Proteomics</b>		Anamika Basu	Venue: The Biome Research Faculty, Kolkata – 700 064	26th March, 2016	Workshop	Participated
103	Bio-Chemistry	<b>UGC Sponsored State Level Seminar on 'Depth of Classicality in Sanskrit'</b>		Anamika Basu	Organized by: Departments of History & Sanskrit, Gurudas College, Kolkata in collaboration with Sanskrit College, Kolkata	2nd December, 2016	State Level Seminar	Participated
104	Bio-Chemistry	<b>UGC Sponsored National Seminar on 'Differential Equations and Lie Groups'</b>	Comparative QSAR modeling study ..... cell stabilizer	Anamika Basu	Organized by: Department of Mathematics, Bangabasi Evening College in collaboration with Department of Mathematics, Gurudas College,	10th – 12th November, 2016	National Seminar	Paper Presented

					Venue: Bangabasi Evening College, Kolkata			
10 5	Bio- Chemistry	<b>UGC Sponsored National Level Seminar on 'Chemistry in Human Life – Current Aspects'</b>		Anamika Basu	Organized by: Departments of Chemistry and Microbiology, Gurudas College, Kolkata in collaboration with IISER, Kolkata	9 <sup>th</sup> – 10 <sup>th</sup> December, 2016	National Level Seminar	Poster Presented
10 6	Bio- Chemistry	<b>UGC Sponsored One Day State Level Seminar on 'Modern Aspects of Plant Sciences with Special Emphasis to Biodiversity and Conservation'</b>		Anamika Basu	Organized by: Department of Botany, Acharya Jagadish Bose College, Kolkata in collaboration with Bangabasi College, Kolkata	23rd May, 2016	State Level Seminar	Paper Presented

		ion'						
107	Botany	<b>One-Day International Seminar on "Good Health Care: Issues And Approaches"</b>		Anwesha Biswas	Dum Dum Motijheel College, Kolkata-00074, West Bengal, India	11th January, 2016	International Seminar	Participated
108	Botany	<b>National Seminar on Plant And Microbe: Diversity And Utilization</b>		Anwesha Biswas	Department of Botany, Visva-Bharati, Santiniketan	19-20th March, 2016	National Seminar	Poster Presented
109	Botany	<b>UGC Sponsored National Seminar</b>	'Media Economics and Politics in Post-Globalization India'	Anwesha Biswas	Gurudas College, Kolkata	22nd – 23rd September, 2016	National Seminar	Participated

110	Botany	<b>UGC Sponsored State Level Seminar</b>	Depth of Classicality in Sanskrit'	Anweha Biswas	Gurudas College, Kolkata	2 <sup>nd</sup> December, 2016	State Level Seminar	Participated
111	Botany	<b>UGC Sponsored National Level Seminar</b>	'Chemistry in Human Life- Current Aspects'	Anweha Biswas	Departments of Chemistry and Microbiology, Gurudas College in collaboration with IISER, Kolkata	9 -10 <sup>th</sup> December, 2016	National Seminar	Participated
112	Botany	<b>International Conference on 'The Green Planet: past, present and future'</b>	Petrified fungal remains... West Bengal, India	Anweha Biswas	CAS-VII, Department of Botany, University of Calcutta, Kolkata, India	21 <sup>st</sup> – 23 <sup>rd</sup> December, 2016	International Conference	Poster Presented

113	Botany	UGC Sponsored National Seminar on Teaching Botany in 21st Century: Prospects & Challenges, Teaching Botany in 21st Century: prospects and challenges		Monalisa Roy	Department of Botany, Bidhannagar College	6 – 7th August, 2016	National Seminar	Participated
114	Botany	UGC Sponsored National Level Seminar, 'Chemistry in Human Life- Current Aspects'		Monalisa Roy	Departments of Chemistry and Microbiology, Gurudas College, Kolkata in collaboration with IISER, Kolkata	9 – 10 <sup>th</sup> December, 2016	National Seminar	Participated
115	Botany	<b>UGC Sponsored State Level Seminar on 'Depth of</b>		Monalisa Roy	Departments of History & Sanskrit, Gurudas College, Kolkata in	2 <sup>nd</sup> December, 2016	State Level Seminar	Participated

		<b>Classicality in Sanskrit'</b>			collaboration with Sanskrit College, Kolkata [Venue – Gurudas College, Kolkata]			
116	Botany	<b>UGC Sponsored State Level Seminar on 'Depth of Classicality in Sanskrit'</b>		Moumita Bishai	Departments of History & Sanskrit, Gurudas College, Kolkata in collaboration with Sanskrit College, Kolkata [Venue – Gurudas College, Kolkata]	2 <sup>nd</sup> December, 2016	State Level Seminar	Participated
117	Botany	<b>National Level Seminar on Current Research in Biological and Biomedical Sciences</b>	Effect of photochemicals and their contribution with metals and antibiotics	Ripan Chandra Das	Department of Zoology, University of Gour Banga	9th February, 2016	National Level Seminar	Poster Presented

118	Botany	<b>National Level Seminar on Current Research in Biological and Biomedical Sciences,</b>		Ripan Chandra Das	Department of Zoology, University of Gour Banga	10th February, 2016	National Level Seminar	Judge in a Scientific Session of the National Level Seminar
119	Botany	<b>Linking Genes, Brain &amp; Behaviour , Conference on Fragile X Syndrome</b>		Mitu De	Spring Club, Kolkata	1st April, 2016		Participated
120	Botany	<b>One-Day International Seminar On "Good Health Care: Issues and Approaches"</b>		Mitu De	Dum Dum Motijheel College, Kolkata – 00074, West Bengal, India	11th January, 2016	International Seminar	Participated
121	Botany	<b>National Science Meet-2016</b>		Mitu De	Organized by: Hiralal Mazumdar Memorial College for Women,	2nd – 3rd March , 2016	National Level	Poster Presented

					Dakshineswar, Kolkata in collaboration with West Bengal State University, Barasat, North 24 parganas			
12 2	Botany	<b>UGC Sponsored One Day State Level Seminar On Modern Aspects of Plant Sciences with Special Emphasis to Biodiversity and Conservation</b>		Mitu De	Acharya Jagadish Chandra Bose College, Kolkata - 20	23rd March, 2016	State Level Seminar	Paper Presented (Oral)
12 3	Botany	<b>UGC Sponsored National Seminar on Teaching Botany in 21st Century:</b>		Mitu De	Organized by: Department of Botany, Bidhannagar College	6th – 7th August, 2016	National Level Seminar	Poster presented

		<b>Prospects &amp; Challenges</b>						
124	Botany	<b>UGC Sponsored State Level Seminar on 'Depth of Classicality in Sanskrit'</b>		Mitu De	Organized by: Departments of History & Sanskrit, Gurudas College, Kolkata	2nd December, 2016	State Level Seminar	Participated
125	Botany	<b>UGC Sponsored National Level Seminar on 'Chemistry in Human Life-Current Aspects'</b>		Mitu De	Organized by: Departments of Chemistry and Microbiology, Gurudas College, Kolkata in collaboration with IISER, Kolkata	9th – 10th December, 2016	National Level Seminar	Poster Presented

126	Botany	<b>The WB National University of Juridical Sciences, Kolkata, Seminar on Disability &amp; Education : A Socio-Legal Approach</b>		Mitu De	Organized by: Centre of Regulatory Studies, Governance and Public Policy (CRSGPP), The West Bengal National University of Juridical Sciences, Kolkata	29th – 30th November, 2016		Paper Presented
127	Botany	<b>UGC Sponsored National Seminar, 'Media Economics and Politics in Post-Globalization India'</b>		Mitu De	Organized by: Gurudas College, Kolkata in collaboration with Mahanirban Calcutta Research Group	22nd - 23rd September, 2016	National Seminar	Paper Presented
128	Botany	<b>UGC Sponsored National Seminar Environmental Awareness: Demand of the Day</b>	Review of common hazardous waste generated from educational institutions: Case study from plant DNA isolation	Mitu De	Organized by: Environmental Development Committee, The Bhawanipur Education	9th – 10th September, 2016	National Seminar	Paper Presented

			protocol in undergraduate college laboratory		Society College, Kolkata in collaboration with Department of Environmental Science, University of Calcutta, Kolkata			
129	Commerce	<b>UGC Sponsored National Seminar “Media Economics and Politics in Post-Globalization India”</b>	Changing Dimension of Media Economics in the post-Globalization India	Tanima Kundu	Organized by: Departments of Economics, Political Science & Journalism and Mass Communication, Gurudas College, Kolkata	22nd September, 2016	National Seminar	Paper Presented
130	History	<b>Annual Conference of the Paschimanga Itihas Samsad</b>	‘Coochbeharer Itihas Charchar Itihas (1800-2000)’	Sanchari Ray	Organized by: Paschimanga Itihas Samsad	January, 2016	National Conference	Paper Presented

131	Journalism	<b>Workshop on Statistical Techniques Used in Research</b>		Arunima Mukherjee	Organized by: Department of Statistics, University of Burdwan	16th-19th February, 2016	Workshop	Participated
132	Journalism	<b>UGC Sponsored State Level Seminar</b>		Arunima Mukherjee	Organized by: Department of History and Sanskrit, Gurudas College	2nd December, 2016	State Level Seminar	
133	Physics	<b>National Seminar on "Applications of Generalized Calculus in Physics and Applied Mathematics"</b>	Anomalous Diffusion and its Electrical Response in Impedance Spectroscopy of Polymer Electrolysis via Generalized Fractional Calculus	Abhra Giri	Organized by: Condensed Matter Physics Research Centre, Jadavpur University and Indian Society of Non-linear Analysis (ISNA), Venue: Jadavpur University, Kolkata, India	26th – 27th April, 2016	National Seminar	Paper Presented

134	Physics	<b>15th Asian Conference on Solid State Ionics (ACSSI-2K-16)</b>	Influence of salt in imparting ionic conductivity and dielectric property of Poly[Ethylene Oxide](PEO) and PEO-Polyvinylidene fluoride(PVDF) polymer blend composite	Ruma Ray	Venue: IIT Patna, India	27th – 30th November, 2016	Conference	Paper Presented
135	Physics	<b>2nd International Conference on Soft Material (ICSM)</b>	Ion Beam irradiation in PEO-PVDF Co-Polymer blend Solid Electrolytes: Effect on Relaxation and Ion Transportation	Ruma Ray	Malaviya National Institute of Technology, Jaipur, India	12th - 16th December, 2016	International Conference	Paper Presented
136	Physics	<b>One Day seminar on Some Recent Trends in Research in Physics (SRTRP-16)</b>	Study the Pore-Size distribution of Gamma irradiated Poly[Ethylene Oxide] in different environmental conditions	Ruma Ray	Venue: Jadavpur University, India	6th March, 2016	Seminar	Paper Presented

137	Physics	<b>National Seminar on Application of Generalised Calculus in Physics and applied Mathematics</b>		Ruma Ray	Organized by: Indian Society of Non-Linear Analysis (ISNA) and Jadavpur University, India	26th - 27th April, 2016	National Seminar	Participated
138	Physics	<b>Research Training Workshop on Concepts &amp; Practice of Materials Characterization</b>		Ruma Ray	Organized by: Indian Institute of Technology, Patna, India	24th - 26th November, 2016	Workshop	Participated
139	Physics	<b>Teaching Program, Semester-I</b>		Ruma Ray	Organized by: IUAC, New Delhi	August 2016- December 2016		
140	Political Science	<b>UGC-CPE Sponsored International Conference on Gender &amp; Empowerment</b>	Fields of Power: Footfall & Women Empowerment in West Bengal	Rima Chatterjee	Organized by: Bijoy Krishna Girls' College, Howrah In collaboration with School of Women's Studies,	16th – 17th December, 2016	International Conference	Paper Presented

					Jadavpur University, Kolkata, Venue: Bijoy Krishna Girls' College, Howrah			
14 1	Political Science	<b>UGC sponsored National seminar on Media Economics and Politics in Post Globalization India</b>	'Changing Contours of Feminism in India- Pivotal Role of Indian Advertisements.'	Somali Mukherjee	Organized by: Departments of Economics, Political Science and Journalism and Mass Communication Gurudas College in collaboration with Mahanirban Calcutta Research Group	23rd September, 2016	National Seminar	Paper Presented
14 2	Political Science	<b>One day seminar on Security in South Asia: Realism and Beyond</b>		Somali Mukherjee	Organized by: School of International Relations and Strategic Studies (SIRSS), JU	28th March, 2016	Seminar	Participated

					in collaborati on with Netaji Institute for Asian Studies, Kolkata			
14 3	Politic al Scienc e	<b>One day seminar on India and its Neighbor hood</b>		Somali Mukhe rjee	Organized by: School of Internatio nal Relations and Strategic Studies (SIRSS), JU	21st March , 2016	Seminar	Participate d
14 4	Sansk rit	<b>Two-day National Seminar</b>	Mughalakālesa ṃskṛtasyaāyati ḥ	Deepro Chakra borty	Organized by: Sanskrit College and University, Kolkata	18th August , 2016	National Seminar	Paper Presented
14 5	Sansk rit	<b>A Five-day Workshop on Poetics and Metrics in Sanskrit and allied literature</b>		Pokhraj Chakra borty	Organized by: UGC- UPE II, Jadavpur University	22nd – 26th Nove mber, 2016	Workshop	Participate d

14 6	Statistic	<b>UGC Sponsored State Level Seminar on 'Depth of Classicality in Sanskrit'</b>		Mousumi Bandyopadhyay	Organized by: Departments of History & Sanskrit, Gurudas College, Kolkata in collaboration with Sanskrit College, Kolkata, Venue: Gurudas College, Kolkata	2nd December, 2016	State Level Seminar	Participated
14 7	Statistic	<b>UGC Sponsored National Level Seminar on "Chemistry in Human Life – Current Aspects"</b>		Mousumi Bandyopadhyay	Organized by: Departments of Chemistry and Microbiology, Gurudas College, Kolkata in collaboration with IISER, Kolkata	9th – 10th December, 2016	National Level Seminar	Participated

14 8	Statistic	<b>UGC Sponsored National Seminar on “Media Economics and Politics in Post-Globalization India”</b>		Mousumi Bandyopadhyay	Organized by: Gurudas College, Kolkata in collaboration with Mahanirban Calcutta Research Group, Venue: Gurudas College, Kolkata	22nd – 23rd September, 2016	National Level Seminar	Participated
14 9	Zoology	<b>1st Regional Science &amp; Technology Congress - 2016</b>		Aziz Hasan Mondal	Organized by: Department of Science & Technology, Govt. of West Bengal in collaboration with Bankura Christian College, Bankura, Venue: Bankura Christian College	7th – 8th November, 2016		Poster Presented

150	Physics	<b>Asian Conference of Solid State Physics</b>	Potential of partial exfoliation of Laponite® in poly [Ethylene Oxide]-NH4I composite towards improvement in ionic conduction through engineered morphology	Ruma Ray	IIT Patna, India	2016	Conference	Participated
151	Bio-Chemistry	<b>Rusa Funded International Level Seminar entitled 'Recent Trends in MicroBiology'</b>		Anindya Bhattacharya	Organized by: Department of Microbiology, Ramakrishna Mission Vidyamandira	14th January, 2017	International Level Seminar	Participated
152	Bio-Chemistry	<b>UGC Sponsored National Seminar on 'Recent Advances in Biological Sciences'</b>		Anindya Bhattacharya	Organized by: Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical	17th – 18th February, 2017	National Seminar	Poster Presented

					Biology, Jadavpur & Dum Dum Motijheel			
15 3	Bio- Chemistry	<b>First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA – 2017)</b>	QSAR Model for Mast Cell Stabilizing Activity of Indolecarboxamidotetrazole compounds on Human Basophils	Anindya Bhattacharya	Venue: Calcutta Business School	24th - 25th March , 2017	International Conference	Paper Presented
15 4	Bio- Chemistry	<b>TEQIP – II Sponsored Seminar, ‘Emerging Trends in Bio – Medical Engineering &amp; Computational Biology’</b>		Anamika Basu	Organized by: School of Bio Science & Engineering, Jadavpur University, Kolkata – 700 032, Venue: K.P. Basu Memorial Hall, Jadavpur University	27th March , 2017	Seminar	Participated

15 5	Bio- Chemistry	<b>UGC Sponsored National Seminar on 'Recent Advances in Biological Sciences'</b>		Anamika Basu	Organized by: Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata	17th – 18th February, 2017	National Seminar	Poster Presented
15 6	Botany	<b>UGC Sponsored National Seminar on "Recent Advances in Biological Sciences"</b>		Anwesha Biswas	Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College,	17 – 18th February, 2017	National Seminar	Poster Presented

					Kolkata			
157	Botany	<b>UGC Sponsored National Seminar on "Recent Advances in Biological Sciences"</b>		Moumita Bishai	Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata	17 – 18th February, 2017	National Seminar	Participated
158	Botany	<b>UGC Sponsored National Seminar on 'Recent Advances in Biological Sciences'</b>		Mitunde	Organized by: Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute	17th – 18th February, 2017	National Seminar	Poster Presented

					of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata			
15 9	Botan y	<b>UGC Sponsored National Seminar on Recent Advances in Chemical Science and Application</b>	Physiochemical variation... varieties of West Bengal	Mitu De	Vidyasagar College for Women	6th – 7th January, 2017	National Seminar	Paper Presented
16 0	Botan y	<b>International Conference on Contemporary Health Issues and Environmental Impact</b>		Mitu De	Organized by: Department of Zoology, Sarojini Naidu College for Women, Kolkata In collaboration with Department of Zoology, West Bengal State	30th November, 2017	International Conference	Poster Presented

					University & Lincoln University College, Malaysia, Place- Department of Zoology, Sarojini Naidu College for Women, Kolkata, West Benga			
16 1	Botan y	<b>National Seminar on Biodiversity</b>	Conservation of Biodiversity and Sustainable Use of Biological Resources	Mitu De	Organized by- Guru Nanak Institute of Pharmace utical Science & Technolog y	1st Septe mber, 2017	National Seminar	Poster Presented
16 2	Botan y	<b>National Seminar on Forest Resources : Conservat ion Issues and Managem ent</b>		Mitu De	Auditoriu m, Indian Institute of Chemical Engineers, Jadavpur University Campus, Kolkata	9th Septe mber, 2017	National Seminar	Poster Presented

163	Chemistry	<b>'Science Academics' Lecture Workshop on Fundamentals of Chemistry</b>		Abhra Sarkar	Organized by: Post-Graduate Department of Chemistry Ramkrishna Mission Vivekananda Centenary College, Rahara	10th – 11th March, 2017	Workshop	Participated
164	Chemistry	<b>Science Academies' Lecture Workshop on 'Recent Trends in Chemical Sciences: Issues &amp; Challenges'</b>		Abhra Sarkar	Surendranath College, Kolkata – 700 009	29th – 30th November, 2017	National Level Science Academies' Lecture Workshop	Participated
165	Chemistry	<b>'Science Academies' Lecture Workshop on Fundamentals of Chemistry</b>		Sujata Roy	Organized by: Post-Graduate Department of Chemistry, Ramkrishna Mission Vivekananda Centenary College, Rahara	10th – 11th March, 2017	Workshop	Participated

166	Commerce	<b>International Seminar, Human Resource Management and Development in the Digital Age</b>	An Empirical Study of Life at Work of College Teachers	Gaurav Deep Rai	Department of Management, North-Eastern Hill University, Tura Campus, Tura, Meghalaya, India	23rd – 24th June, 2017	International Seminar	Paper Presented
167	Commerce	<b>Two day International Conference on Emerging Perspectives in Commerce, Economics and Management-Policies for a Better World (ICCEM2017)</b>	Spillover of Quality of work life on Job satisfaction: Evidence from College Teachers	Gaurav Deep Rai	St. Xavier's College, Kolkata	2nd – 3rd November, 2017	International Conference	Paper Presented

168	Com merce	<b>'Draft Course Structure for B.Com. (Honours and General), prepared under CBCS (Choice Based Credit System)'</b>		Tanima Kundu	Naba Ballygunge Mahavidyalaya	1st April, 2017	Workshop	Paper Presented
169	Com merce	<b>A One-Day Workshop on Revised Curricula of Semesterized B.Com (Hons. &amp; Genl.) Course of Studies Under CBCS &amp; Related Issues</b>		Tanima Kundu	Organized by: Department of Commerce, T.H.K. Jain College, Kolkata in association with Under Graduate Board of Studies in Commerce, University of Calcutta	25th November, 2017	Workshop	Participated

170	Com merce	<b>One-Day Workshop on Implementation of Newly Introduced Semesterized 3-Year B.COM. Syllabi Under CBCS</b>		Tanima Kundu	Organized by: Department of Commerce, Bangabasi College, Kolkata in association with Under Graduate Board of Studies in Commerce, University of Calcutta	29th July, 2017	Workshop	Participated
171	Com merce	<b>Workshop on Philosophy &amp; application of research methodology in social science</b>		Tanima Kundu	Organized by: Banabasi Morning College, Department of Commerce	21st – 22nd December, 2017	Workshop	Participated
172	Economics	<b>Dynamics of Economic Development in West Bengal</b>		Debolina Biswas	Kanchrapara College, District-North 24 Parganas, West Bengal, Pin- 743	8th December, 2017	Seminar	Delivered a lecture

					145			
173	Economics	<b>Festival for New Economic Thinking</b>	Revisiting Neoliberal Reforms and Rural Inequality in India: A Case Study of West Bengal Economy	Debolina Biswas	Edinburgh Corn Exchange	19th – 20th October, 2017	International Seminar	Paper Presented
174	English	<b>Tattoo: Difference of Meanings in various cultures; Effects of Globalization and Modern Appreciation in Sub Cultures</b>		Tanmoy Baghira	Gurudas College, Kolkata	20th September, 2017		Speaker
175	History	<b>'Hegemony, Resistance and Cultural Artefacts: India in the Late 19th and 20th Centuries'</b>	'Beyond Captivity: A Study of Women's Prison Literature in Colonial and Post-colonial Bengal'	Gopa Mukherjee	Organized by: Department of History, Jadavpur University	March, 2017	International Seminar	Paper Presented

176	History	<b>'The Russian Revolution: Historical Reflections'</b>	'Revolutionary Russia: Situating Mikhail Bakunin and his Anarchist Ideas'	Saptadeepa Banerjee	Organized by: Department of History, Ramakrishna Mission Vidyamandira, in collaboration with the Russian Centre of Science and Culture in Kolkata, Gorky Sadan	February, 2017	International Seminar	Paper Presented
177	History	'Exploring South Asia: State, Religion and Society in South-East Asia'	'History and Historiography of Limbu Tribe of Darjeeling Hills'	Jamuna Subba	Organized by: Department of History, University of Gour Banga	March, 2017	International Seminar	Paper Presented
178	History	<b>'Changing Demographic Scenario in Colonial and Postcolonial North Bengal –</b>	'Identity Crisis of the Rabhas: A Study of Cross-Culture'	Sanchari Ray	Organized by: Bakshirhat Mahavidyalaya, Cooch Behar	February, 2017	National Seminar	Paper Presented

		<b>North East India'</b>						
179	History	<b>Annual Conference of the Paschimanga Itihas Samsad</b>	'Santrasbad theke Rani Jhansi Bahini (1905-47)'	Sanchari Ray	Organized by: Paschimanga Itihas Samsad	January, 2017	National Conference	Paper Presented
180	History	<b>'Reappraising the Partition of India'</b>	'The Great Partition and its Politics'	Sanchari Ray	Organized by: Department of History and IQAC, Bijoy Krishna Girls' College	December, 2017	International Seminar	Paper Presented
181	Philosophy	<b>National Level Research Oriented Workshop on "Bhasaparicchedah (Anumana khandam)"</b>		Paramita Majumder	Organized by: Swami Vivekananda Research Centre in collaboration with Department of Sanskrit, R.K.M. Vidyamandira	21st, 25th, 28th March 2017 & 1st, 4th, 8th, 11th, 18th, 22nd and 25th April,	National Level Research Oriented Workshop	Participated

						2017		
182	Physics	<b>15th Workshop on High Energy Physics Phenomenology</b>		Biswajit Adhikary	Venue: Indian Institute of Science Education and Research, Bhopal	14th – 23rd December, 2017	Workshop	Delivered Talk
183	Political Science	<b>Maulana Abul Kalam Azad Institute of Asian Studies (MAKAIAS) sponsored one day National Seminar on India as an Emerging Power: Myths and Reality</b>	'Post Kargil Pakistan's India Policy: A Brief Comparative Study of Musharraf and Zardari Era'	Somali Mukherjee	Organized by: Dept of Political Science Kanchrapara College in collaboration with Centre for Subcontinental Studies, Kolkata	11th November 2017	National Seminar	Paper Presented
184	Political Science	<b>Youth Parliament</b>		Somali Mukherjee	Organized by: Dept of Parliamentary	18th November, 2017	Seminar	Participated

					Affairs, Govt of West Bengal, District level			
18 5	Politic al Scienc e	<b>Two day National Seminar on Regionalis m and Internatio nal Relations: Contours and Trends</b>		Somali Mukhe rjee	Organized by: Dept of Internatio nal Relations, JU	14th - 15th March ,2017	National Seminar	Participate d
18 6	Princi pal	<b>One Day Seminar On “Academi c Administ ration in Higher Education ”</b>		Mausu mi Chatter jee	Organized by: Deshband hu College for Girls In collaborati on with All Bengal Principals’ Council, Venue: Deshband hu College for Girls, 45 C, Rashbehar i Avenue, Kolkata- 700 026	5th August , 2017	Seminar	Participate d

187	Sanskrit	<b>UGC Sponsored National Seminar on Manuscripts of Unpublished Sanskrit Texts: Search and Utility</b>	The Construction of the Text of Śambhuśikṣā: Problems & Solutions	Deepro Chakraborty	Organized by: School of Vedic Studies, Rabindra Bharati University	14th - 15th February, 2017	National Seminar	Paper Presented
188	Sanskrit	<b>A Three-day Workshop on Grammatical Structure of the Colophon of Sanskrit Manuscripts: A Method for Cataloguing</b>		Pokhraj Chakraborty	Organized by: UGC-UPE II, Jadavpur University	27th – 29th December, 2017	Workshop	Participated
189	Zoology	<b>UGC Sponsored National Seminar on “Recent Advances in Biological</b>		Aparajita Pal	Organized by: Department of Microbiology, Gurudas College, Kolkata in	17th – 18th February, 2017	National Level Seminar	Oral Presentation

		Sciences”			collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata			
190	Zoology	<b>National Institute for Health Research Colorectal Therapies HTC 4th National Meeting Jugaad Innovation</b>		Aparajita Pal	Venue: Leeds Town Hall Leeds, England UK	26th September, 2017	National Meeting	Audience
191	Zoology	<b>UGC Sponsored National Seminar on “Recent Advances in Biological Sciences”</b>		Aziz Hasan Mondal	Organized by: Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical	17th – 18th February, 2017	National Seminar	Oral Presentation

					Biology, Jadavpur & Dum Dum Motijheel College, Kolkata			
19 2	Zoolo gy	<b>Two-day Workshop on “Induced Breeding &amp; Larval Rearing of Indian Magur”</b>		Aziz Hasan Mondal	Organized by: Departme nt of Zoology, The University of Burdwan, Burdwan	4th – 5th August , 2017	Workshop	Audience
19 3	Zoolo gy	<b>UGC Sponsore d National Seminar on “Recent Advances In Biological Sciences”</b>		Kakali Sau	Organized by: Departme nt of Microbiol ogy in collaborati on with Indian Institute of Chemical Biology, Jadavpur, Kolkata, Dum Dum Motijheel College, Departme nt of Zoology, Kolkata	17th – 18th Februa ry, 2017	National Seminar	Conveners

19 4	Zoology	<b>UGC Sponsored National Seminar on “Recent Advances in Biological Sciences”</b>		Monika Mehta	Organized by: Department of Microbiology, Gurudas College in collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata	17th – 18th February, 2017	National Seminar	Conveners
19 5	Zoology	<b>UGC Sponsored National Seminar on “Recent Advances in Biological Sciences”</b>		Poulami De Bhowmik	Organized by: Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel	17th – 18th February, 2017	National Seminar	Audience

					College, Kolkata			
19 6	Zoolo gy	<b>UGC Sponsore d National Seminar on “Recent Advances in Biological Sciences”</b>		Salini Das	Organized by: Departme nt of Microbiol ogy, Gurudas College, Kolkata in collaborati on with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata	17th – 18th Februa ry, 2017	National Seminar	Audience
19 7	Zoolo gy	<b>UGC Sponsore d National Seminar on “Recent Advances in Biological Sciences”</b>		Saurav Dutta	Organized by: Departme nt of Microbiol ogy, Gurudas College, Kolkata in collaborati on with	17th – 18th Februa ry,201 7	National Seminar	Audience

					Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata			
198	Zoology	<b>UGC Sponsored National Seminar on “Recent Advances in Biological Sciences”</b>		Umashankar Pal	Organized by: Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata	17th – 18th February, 2017	National Seminar	Audience

199	Zoology	<b>Seminar on M.M. Chakravarty Memorial Lecture and D.N. Ganguly Memorial Lecture</b>		Suman Purohit	Organized by: The Zoological Society, Kolkata, 35 Ballygunge Circular Road, Kolkata-700 019, Venue: Department of Zoology, University of Calcutta	8th February, 2017	Seminar	Audience
200	Zoology	<b>UGC Sponsored National Seminar on "Recent Advances in Biological Sciences"</b>		Suman Purohit	Organized by: Department of Microbiology, Gurudas College, Kolkata in collaboration with Indian Institute of Chemical Biology, Jadavpur & Dum Dum Motijheel College, Kolkata	17th – 18th February, 2017	National Seminar	Audience

201	Zoology	<b>8th East Zonal Oncology Symposium, 2017</b>		Suman Purohit	Organized by: Saroj Gupta Cancer Centre & Research Institute, Thakurpukur, Kolkata	21st January, 2017	Symposium/Conference	Audience
202	Zoology	<b>44th Annual Conference of Immunology Society, (Immunoclon – 2017)</b>	AXL/ GAS 6 Signaling Promotes Neo-Vascularization during Angiogenic Progression of Breast Cancer	Suman Purohit	Organized by: Institute of Science, Nirma University, Indian Institute of Advanced Research, B.V. Patel PERD Centre	14th – 16th December, 2017	Conference	Poster Presented
203	History	<b>Panel Title: Urban History</b>	'Calcutta: A colonial product'	Sreya Mitra	Organized by: Ancholik Itihash Samsad	2017		Paper Presented
204	History	<b>Research Methodology of Humanities and Social Sciences</b>	'Methodological challenges'	Sreya Mitra	Scottish Church College	2017	Workshop	Participated

205	Physics	<b>One day Symposium on Nanotechnology</b>	Influence of nano clay on structure and electrical properties of poly (Ethylene) oxide based solid electrolytes	Ruma Ray	Venue: Birla Institute and Technological Museum, Kolkata, India	2017	Symposium/Conference	Participated
206	Physics	<b>Fourth International Symposium on Semiconductor Materials and Devices (ISSMD - 4)</b>	Gamma irradiation in solid polymer electrolytes and ion diffusion by random walk simulation	Ruma Ray	Organized by: Physics Department, Jadavpur University, Kolkata, India	2017	International Symposium/Conference	Participated
207	Physics	<b>Twist and Turn in Physics Research: Special Emphasis on Bio- and Condensed Matter Physics (TTPR)</b>	Potential of exfoliation of Laponite® in poly [Ethylene Oxide]-NH4I composite towards improvement in ionic conduction through engineered morphology	Ruma Ray	Organized by: Physics Department, Jadavpur University, Kolkata, India	2017	Conference	Participated
208	Bengali	Dudiner Antorjatik Alochana Sabha	Bankim Chandrer Kamala Baganta: Shamprotik	Dipanjan Mandal	Bangla bibhag ebong Vidyasagar	27-28 March , 2018	National level conference	Paper Presented

			Drishtikon		Sabhagriha, Kalyani University			
209	Bengali	Dudiner Antorjatik Alochana Sabha	Bankim Chandra ebong ekbingsho shotabdir bhabna/ Bangla Uponasher Purodha Pothikrit Rishi Bankim Chandra	Gayatri Acharya	Bangla bibhag ebong Vidyasagar Sabhagriha, Kalyani University	27-28 March, 2018	National level conference	Paper Presented
210	Bengali	Jatiyo Alochana Sabha, Bishoi – Tarashankar Jibon O Kirti	Tarashankar er Aghronstito Chotogolpo, Bisha Judho Prekhapote	Gayatri Acharya	Organized by: Bisha Bidyalay Monjuri Commissioner Orthankulle in joint collaboration with Kalyani University, Bengali Department	8th August, 2018	National Seminar	Paper Presented

21 1	Bengali	Jatiyo Alochana Sabha, Bishoi: Shotobors her Aloker Sahitik Narayan Gongopadhyay: Ekaler Sahitik O Shomalochokder Drishtite		Gayatri Acharya	Bangla Bibhag ebong Vidyasagar er Sabhagriho, Kalyani University	23rd February, 2018	National Seminar	Participated
21 2	Bengali	National Seminar on Ekush Shotoker Bangla Uponash		Gayatri Acharya	Organized by: Bhasha O Sanskriti Gabeshana Parishad	21st April, 2018	National Seminar	Participated
21 3	Bengali	Antorjatik Alochana Sabha, "Bangla Bhasha: Media O Sanskriti"		Gayatri Acharya	Organized by: Bengali Department, Kola O Banirjjo Anushod, Kalyani University, Nadia, Pin: 741 235	26th April, 2018		Participated
21 4	Bengali	Antorjatik Alochana Sabha, Adhunik Bangla Sahitya Bahumatri	Kobi Jiboner Alo: Uponasher Dorpone	Gayatri Acharya	Organized by: Bengali Department, Kola O Banirjjo Anushod,	14 <sup>th</sup> – 15 <sup>th</sup> December, 2018		Paper Presented

		k Probonota			Kalyani University, Nadia, Pin: 741 235			
21 5	Benga li	Internatio nal Seminar on the History and Heritage of Bengal	'Madanalekha' O 'Shakuntalapat rika': Tulanatmak Alochana	Krishna Das	Pabna University of Science & Technolog y, Pabna, Banglades h	24th Januar y, 2018	International Seminar	Paper Presented
21 6	Bio- Chemi stry	<b>A roadmap of better performa nce in Biochemis try Honours</b>		Anindy a Bhattach harya	Departme nt of Biochemis try, Vidyasaga r College, 39, Sankar Ghosh Lane, Kolkata- 700 006	11th Octob er, 2018	Workshop	Participate d
21 7	Bio- Chemi stry	B.Sc. Syllabus in Biochemis try (Hons. & General) under CBCS System as Resource Person/Part icipant		Anindy a Bhattach harya	Departme nt of Biochemis try, 35, B.C. Road, Kolkata- 700 019	2nd July, 2018	Workshop	Participate d

218	Bio-Chemistry	<b>Workshop on 'A Roadmap of better performance in Biochemistry Honours'</b>		Anindya Bhattacharya	Venue: Department of Biochemistry, Vidyasagar College, 39, Sankar Ghosh Lane, Kolkata – 700 006	11th October, 2018	Workshop	Attended
219	Bio-Chemistry	<b>Workshop for U.G Biochemistry Teachers on B.Sc. Syllabus in Biochemistry (Hons. &amp; General) under CBCS System</b>		Anindya Bhattacharya	Venue: Department of Biochemistry, 35, B.C. Road, Kolkata – 700 019, University of Calcutta	2nd July, 2018	Workshop	Participated
220	Bio-Chemistry	<b>International Conference on Materials, Applied Physics and Engineering (ICMAE) – 2018</b>	Gene Regulatory Network in Pollen Allergy using micro RNAs and Transcription Factors	Anindya Bhattacharya	Venue: Effotel Hotel Indore, Sector C Indore, Madhya Pradesh, India	3rd – 4th June, 2018	International Conference	Paper Presented

22 1	Bio- Chemistry	<b>International Conference on Emerging Technologies in Data Mining And Information Security</b>	In Silica Study of Plant Protein Expansion	Anindya Bhattacharya	Organized by: School of Information Technology (IEM), India	23rd - 25th February, 2018	International Conference	Paper Presented
22 2	Bio- Chemistry	<b>International Seminar on Frontiers in Biological Science (FIBS)</b>		Anindya Bhattacharya	Organized by: Department of Microbiology, St. Xavier's College, Kolkata, Venue: St. Xavier's College, Kolkata	30th January, 2018	International Seminar	Poster Presented
22 3	Bio- Chemistry	<b>One Day Seminar on 'Concept of Newer Approach to Build Healthier India'</b>		Anamika Basu	Organized by: Department of Biochemistry & Health care Unit, Asutosh College, Venue: Asutosh College, Centenary	31st August, 2018	Seminar	Participated

					Hall			
22 4	Botan y	<b>National Level Workshop on Herbariu m Technique s and Plant Nomenclature</b>		Anwes ha Biswas	P.G. Departme nt of Botany, Ramkrishn a Mission Vivekanan da Centenary College, Rahara, Kolkata- 700 118 in collaborati on with Central National Herbarium and ENVIS Resource Partner, Botanical Survey of India, AJC Bose Indian Botanic Garden, Howrah- 711 103	22nd – 23rd Februar y, 2018	National Level Workshop	Participate d

225	Botany	<b>National Seminar on Recent Advancement in Cryptogamic Botany</b>		Mitu De	CAS, Department of Botany, University of Calcutta	2nd February, 2018	National Seminar	Participated
226	Botany	<b>International Seminar on Frontier's in Biological Science (FIBS)</b>		Mitu De	St. Xavier's College, Kolkata	30th January, 2018	International Seminar	Poster Presented
227	Botany	<b>National Seminar on Biodiversity &amp; Conservation Scenario in 21st Century</b>		Mitu De	Sakhawat Memorial Govt. Girls' High School, Kolkata	25th February, 2018	National Seminar	Paper Presented
228	Botany	<b>National Conference on Exclusion to Empowerment</b>	Implementation of Some Principles of Social Role Valorization (SRV) in community inclusive Activities – Recent Trends in Social inclusion and	Mitu De	Regional Center, Kolkata	19th – 20th November, 2018	National Conference	Paper Presented

			Empowerment of Young Adults with Autism					
229	Economics	<b>Teaching of Economics in India</b>		Debolina Biswas	Azim Premji University	27th – 28th October, 2018	Workshop	Participated
230	Economics	<b>One Day Workshop on 'Lectures on Microeconomics and Mathematical Economics under the System of Choice Based Credit System'</b>		Triparna Majumdar	Surendranath College for Women	30th June, 2018	Workshop	Participated

23 1	Economics	<b>Workshop on 'Administrative Reforms in Higher Educational Institutions: Perspective CBCS'</b>		Triparna Majumdar	University Grants Commission, Human Resource Development Centre (UGC-HRDC), University of Calcutta	20th – 21st March, 2018	Workshop	Participated
23 2	Economics	<b>Workshop on 'Administrative Reforms in Higher Educational Institutions: Perspective CBCS'</b>		Triparna Majumdar	University Grants Commission, Human Resource Development Centre (UGC-HRDC), University of Calcutta	20th – 21st March, 2018	Workshop	Participated
23 3	English	<b>Greek Tragedy</b>		Mousumi Mondal	Gurudas College, Kolkata	27th September, 2018		Speaker
23 4	History	<b>Fifth International Conference of the Anarchist Studies Network, 'ASN 5</b>	'Mikhail Bakunin and the Marx-Bakunin Debate: Ideology and the Russian Revolution'	Saptadeepa Banerjee	Organized by: Anarchist Studies Network, Loughborough University, Loughbor	September, 2018	International Conference	Paper Presented

		<b>Decolonise!</b>			ough, Leicestershire, UK			
235	History	<b>'Gender, Environment and Culture in Indian History'</b>	'Social and Marital Status of Limbu Women in Darjeeling Hills'	Jamuna Subba	Organized by: Department of History, University of GourBangala	March, 2018	International Seminar	Paper Presented
236	History	<b>History, Culture and Heritage'</b>	'Banglar Agni Kanyara (1905-34)'	Sanchari Ray	Organized by: Itihas Academy, Dacca	February, 2018	International Conference	Paper Presented
237	History	<b>Annual Conference of the Paschim Banga Itihas Samsad</b>	'Kamta Koch Rajje Sanskritik Dharmiya Biswas O Jibancharcha – Ekti Aitihasic Mulyayan'	Sanchari Ray	Organized by: Paschim Banga Itihas Samsad	January, 2018	National Conference	Paper Presented
238	Journalism	<b>International Workshop on Defining Trends of Media and Popular Culture in Contemp</b>		Arunima Mukherjee	Organized by: Department of Journalism and Mass Communication, Place: Gitanjali Auditorium	3rd January, 2018	International Workshop	Participated

		<b>orary India</b>			m, Surendran ath College for Women, Kolkata			
23 9	Journ alism	<b>Internatio nal Workshop on Defining Trends of Media and Popular Culture in Contemp orary India</b>		Arunim a Mukhe rjee	Organized by: Departme nt of Journalism and Mass Communic ation, Surendran ath College for Women	3rd Januar y 2018	International Workshop	Participate d
24 0	Philos ophy	<b>One day Internatio nal Conferenc e on Status of Girl Child in Society, The Indian and Global Perspectiv es</b>	Ekti Nareer Jibone Boyoshandhi Kaler Somosya Ebong Ei Somosya Samadhane Maer Bhumika	Parami ta Majum der	Venue: Plassey college, Plassey	10th Octob er, 2018	International Conference	Paper Presented

24 1	Physics	<b>Workshop on Introduction to Fractal Geometry and its Application in Condensed Matter Physics</b>	Measuring Fractals	Abhra Giri	Organized by: Condensed Matter Physics Research Centre, Jadavpur University, [Venue: Jadavpur University, Kolkata, India]	13th – 14th December, 2018	Workshop	Invited Talk
24 2	Physics	<b>A one-day workshop on CBCS-Physics Syllabus</b>		Biswajit Adhikary	Organized by: Department of Physics, Bangabasi College, Kolkata In collaboration with U.G. Board of Studies in Physics, University of Calcutta, Venue: Bangabasi College, Kolkata	7th May, 2018	Workshop	Participated

24 3	Political Science	<b>A one-day workshop on CBS- Political Science Syllabus</b>		Gautam Mukhopadhyay	Organized by: Department of Political Science, Bangabasi College, Kolkata In collaboration with U.G. Board of Studies in Political Science, University of Calcutta, Venue: Bangabasi College, Kolkata	28th May, 2018	Workshop	Participated
24 4	Sanskrit	<b>17th World Sanskrit Conference</b>	Various Traditional Enumerations and Classifications of Sanskrit Speech Sounds: A Comparative Analysis	Deepro Chakraborty	Vancouver	9th - 13th July, 2018	International Conference	Paper Presented

24 5	Sanskrit	<b>National Seminar on Commentaries of Sanskrit Literature with Reference to Text, Context and Subtext</b>	Importance of commentary Literature for beginners	Pokhraj Chakraborty	Organized by Department of Sanskrit, Jadavpur University, Kolkata	17th January, 2018	National Seminar	Paper Presented
24 6	Sanskrit	<b>Seven-Day Workshop on Indian Epigraphy and Palaeography</b>		Pokhraj Chakraborty	Organized by: UGC-CAS-SANSKRIT (Phase- II), Jadavpur University	26th – 29th December, 2018 & 3rd – 5th January, 2019	Workshop	Participated
24 7	Sanskrit	<b>National Level Workshop on YOGA-VEDANTA RENAISSANCE</b>	The conception of 'Atmanusandhana' in the light of the thoughts of Tagore and Ratana	Pokhraj Chakraborty	Organized by: Department of Sanskrit, Jadavpur University	24th – 29th September, 2018	National Level Workshop	Paper Presented

24 8	Zoology	<b>1st International Conference on “Frontiers in Biological, Environmental and Medical Sciences 2018” (FBEMS 2018)</b>		Aziz Hasan Mondal	Organized by: The University of Burdwan, Burdwan, West Bengal, India, Venue: The University of Burdwan	8th – 10th March , 2018	International Conference	Poster Presented
24 9	Zoology	<b>Workshop on Zoology CBCS Syllabus, 2018, University of Calcutta</b>		Babli Halder	Organized by: Surendranath College in collaboration with Board of Studies in Zoology, CU	12th June, 2018	Workshop	Audience
25 0	Zoology	<b>One day Workshop on Practical Syllabus of Zoology Hons. Part – II Curriculum of University of</b>		Kakali Sau	Organized by: Under Graduate – Board of Study in Zoology, University of Calcutta in collaboration with Department of Zoology,	29th March , 2018	Workshop	Audience

		<b>Calcutta</b>			University of Calcutta, Venue: Department of Zoology, C.U., 35 Ballygunge Circular Road, Kolkata – 700 019			
25 1	Zoology	<b>Workshop on Zoology CBCS Syllabus, 2018</b>		Monika Mehta	Organized by: Surendranath College in collaboration with Board of Studies in Zoology, CU	12th June, 2018	Workshop	Audience
25 2	Zoology	<b>One day Workshop on Zoology CBCS Syllabus, 2018</b>		Poulami De Bhowmik	Organized by: Surendranath College in collaboration with Board of Studies in Zoology, CU	12th June, 2018	Workshop	Audience/ Actively Participated

25 3	Zoology	<b>One day Seminar on “Current Trends of Immunotherapeutic and Reproductive Science”</b>		Saurav Dutta	Organized by: Department of Zoology, Gurudas College in collaboration with Seminar Committee, Gurudas College	12th October, 2018	Seminar	Audience
25 4	Zoology	<b>Workshop on “Development of Soft Skills”</b>		Saurav Dutta	Organized by: University Grants Commission, Human Resource Development Centre (UGC-HRDC), Venue: UGC – HRDC, University of Calcutta	29th November – 1st December, 2018	Workshop	Audience

25 5	Zoology	<b>An International Conference to celebrate 100 years of excellence from 1919-2019 at the Ramakrishna Mission Institute of Culture &amp; University of Calcutta (Ballygunge Campus)</b>	Neo-Vascularization during angiogenic progression of Breast Cancer	Suman Purohit	Organized by: Department of Zoology, University of Calcutta, INTZOCON – 2018	1st – 3rd February, 2018	International Conference	Paper Presented
25 6	History	<b>Nineteenth Century Bengal</b>	'Social consumption of nineteenth century Calcutta'	Sreya Mitra	Organized by: Fifth International Congress of Bengal Studies at Jahangirnagar University, Dhaka	2018	Fifth International Congress of Bengal Studies	Paper Presented

257	Bio-Chemistry	<b>National Conference on Future India: Science and Technology</b>		Anindya Bhattacharya	Organized by: City College, Kolkata – 700 009 in Collaboration with Indian Science Congress Association, Kolkata Chapter, Venue: City College, 102/1 Raja Rammohan Sarani, Kolkata – 700 009, West Bengal, India	27th – 28th February, 2019	National Conference	Participated & Paper Presented
258	Bio-Chemistry	<b>5<sup>th</sup> Annual Conference, “Recent Perception In Nutrition And Dietetics For Combating Chronic Diseases”</b>		Anindya Bhattacharya	Organized by: Society for Nutrition and Dietetics in collaboration with International College of Nutrition, Calcutta Chapter	3rd February, 2019	Conference	Participated

25 9	Botany	<b>'An Initiative To Document And Conserve Indigenous Mango Magnifera indica L. Biodiversity of Malda And Murshidabad Districts Maintained As Field Genebanks'</b>		Mitunde	Indian Statistical Institute, Kolkata	14th – 16th February, 2019	International Conference	Oral Presentation
26 0	Botany	<b>6th India Biodiversity Meet 2019</b>	'Genetic Diversity of Indigenous Mango (Magnifera indica L.) Varieties of Murshidabad Using Multivariate Data Analysis: For Natural Resource Management and Future Breeding Programs'	Mitunde	Indian Statistical Institute, Kolkata	14th – 16th February, 2019	International Conference	Poster Presented

26 1	Chemistry	<b>MOOCs, E-Content Development and Open Education Resources</b>		Abhra Sarkar	University Grants Commission, Human Resource Development Centre (HRDC), University of Calcutta	19th – 25th March, 2019	Workshop	Participated
26 2	Chemistry	<b>Workshop on Maths and Computation for UG Chemistry – A UGC CPE Programme</b>		Sujata Roy	Day 1 – Seminar Room no. 209, TEQIP Building, JU Day 2 – Bankim Sardar College, South 24 Parganas	12th – 13th February, 2019	Workshop	Participated
26 3	Commerce	<b>National Seminar on Advances in Business and Management</b>	Impacts of Facets of Job on Qwland Job Satisfaction: Evidence from Bankers	Gaurav Deep Rai	Organized by: Department of Commerce, University of North Bengal, Raja Rammohunpur, Dist. Darjeeling, West Bengal,	28th – 29th March, 2019	National Seminar	Paper Presented

					India			
264	Com merce	<b>One Day Workshop on Taxation II (GST) (Included in the Curricula of Semester V of B.Com. Honours &amp; General Course Studies under CBCS)</b>		Tanima Kundu	Organized by: Under Graduate Board of Studies in Commerce, University of Calcutta in collaboration with Department of Commerce, Maharaja Manindra Chandra College, Kolkata	27th April, 2019	Workshop	Participated
265	Economics	<b>Workshop on Data Analysis and Applied Econometrics</b>		Triparna Majumdar	Lady Brabourne College	3rd May, 2019	Workshop	Participated
266	Economics	<b>Workshop on 'Lectures on Macroeconomics under</b>		Triparna Majumdar	Surendranath College for Women	5th January, 2019	Workshop	Participated

		<b>Choice Based Credit System'</b>						
267	Economics	<b>Workshop on 'Some Topics on Macroeconomics &amp; Mathematical Economics'</b>		Tripurna Majumdar	Organized by: Department of Economics, the Bhawanipur Education Society College, Kokata	5th March, 2019	Workshop	Participated
268	Economics	<b>Workshop on 'Advanced Tools and Techniques for Analysis of Demographic and Health Statistics and Application of Computer Software'</b>		Tripurna Majumdar	Population Studies Unit (PSU), Indian Statistical Institute (ISI), 203, B.T. Road, Kolkata-700 108	18th – 20th March, 2019	Workshop	Participated

269	Economics	<b>International Conference on Finance &amp; Applied Economics 2019</b>	Quality of Healthcare In Tertiary Hospitals In West Bengal: Patient's Perception	Triparna Majumdar	Organized by: Marathwada Mitra Mandal's Institute of Management Education Research & Training, Pune In association with Gokhale Institute of Politics & Economics , Pune; Murdoch University, Dubai; The Indian Econometric Society, New Delhi; Savitribai Phule Pune University	15th – 17th February, 2019	International Conference	Paper Presented
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270	English	<b>Staying On: Shakespeare and the Legacies of Theatre in the East (1930 – 1980)</b>		Priyanka Basu	Gurudas College, Kolkata	21st February, 2019		Speaker
271	History	<b>‘Exploring the History of Adivasis, Dalits and Minorities in India’</b>	‘Indigenous Health Practices and its Scope: A Study among the Limbu Tribes of Darjeeling Hills’	Jamuna Subba	Organized by: Department of History, University of Gour Banga, Malda	April, 2019	International Seminar	Paper Presented
272	History	<b>‘History, Culture and Heritage’</b>	‘Nari O Swadhinata Andolan (1920-47)	Sanchari Ray	Organized by: Itihas Academy, Dacca	February, 2019	International Conference	Paper Presented
273	Mathematics	<b>National Seminar on “Recent Advances in Mathematics and its applications”</b>	Proximity structure in generalized topological spaces	Dipankar Dey	Department of Pure Mathematics, University of Calcutta, 35, Ballygunge Circular Road, Kolkata-700 019	21st February, 2019	National Seminar	Paper Presented

27 4	Mathematics	<b>Workshop on MOOCs, E-Content Development and Open Education Resources</b>		Supriya Mukherjee	University Grants Commission, Human Resource Development Centre (HRDC)	19th – 25th March, 2019	Workshop	Participated
27 5	Philosophy	<b>Two Days International Seminar on Role of Women in Present Society as per Buddha's Perspective</b>	Dr. Ambedkar's views on women in the context of pre and post – Independent era of Indian Society	Paramita Majumder	Organized by: Santiniketan Ambedkar Buddhist Welfare Mission in collaboration with Department of Indo-Tibetan Studies Visva-Bharati, Santiniketan	23rd – 24th March, 2019	International Seminar	Paper Presented
27 6	Physics	<b>UGC Sponsored Workshop on Remote Sensing &amp; GIS</b>		Biswajit Adhikary	University Grants Commission, Human Resource Development Centre, The University of Burdwan,	12th – 18th March, 2019	UGC Sponsored Workshop	Participated

					Burdwan			
27 7	Political Science	<b>ICSSR sponsored International Conference on Migration and Displacement: Global Perspectives on Issues and Challenges</b>	'The Paradox of Humanitarian Intervention: Select Case Studies'	Somali Mukherjee	Organized by: Behala College	10th - 11th January 2019	International Conference	Paper Presented
27 8	Sanskrit	<b>Two-Day University Sponsored National Seminar on 'Indian Intellectual Tradition: Purana Literature',</b>	Sanskrit Alonkar Shastri Kaku- Bakrotir Sthan O Tar Alongkarotkto Nirapon	Pokhraj Chakraborty	Organized by: Department of Sanskrit, Rabindra Bharati University, Kolkata	19th – 20th March , 2019	National Seminar	Paper Presented

27 9	Zoology	<b>2nd International Conference on Frontiers in Biological, Environmental and Medical Sciences</b>	Nano – zinc Improved ---- Labeo rohita (Hamilton) Fingerlings	Aziz Hasan Mondal	Organized by: The University of Burdwan, W.B., India Under PURSE Phase 2 Programme	7th – 9th March, 2019	International Conference	Paper Presented
28 0	Zoology	<b>International Conference on Recent Advances in Informatics, Communication, Management, Health &amp; Applied Sciences (RAICMHAS – 2019)</b>	“Human ..... polymorphism”	Saurav Dutta	Venue: RAICMHAS - 2019	2nd – 4th February, 2019	International Conference	Poster Presented
28 1	Zoology	<b>One day Workshop on Practical Syllabus of Zoology Hons. Part – II</b>		Suman Purohit	Organized by: Under Graduate Board of Study in Zoology, University of Calcutta in	29th March, 2019	Workshop	Audience

		<b>Curriculum of University of Calcutta</b>			collaboration with Department of Zoology, University of Calcutta, Venue: Department of Zoology, C.U., 35 Ballygunge Circular Road, Kolkata-700 019			
	Library	<b>Two-Day International Conference On Koha</b>		Joydeep Chanda	Jointly Organized by: Bengal Library Association & Ramkrishna Mission Vidyamandira, Venue: Vivekananda Sabhagriha, Ramkrishna Mission Vidyamandira, Belur Math, Howrah	23rd - 24th February, 2019	International Conference	Participated

282	Micro Biology		Use of prodigiosin for targeted drug delivery	Samrat Chatterjee				Poster Presentation
283	Micro Biology	<b>Modern Trends In Microbiology</b>	'Isolation of Heavy Metal Resistance Bacteria from Bagjola Canal Near Salt Lake'	Samrat Chatterjee	Organized by: Department of Microbiology, Scottish Church College		State Level	Paper Presented
284	Micro Biology	<b>Modern Trends In Microbiology</b>	'Microbial Degradation of Textile Dyes by Soil Microorganism in Kolkata'	Samrat Chatterjee	Organized by: Department of Microbiology, Scottish Church College		State Level	Paper Presented
285	Micro Biology	<b>Chemistry In Human Life - Current Aspects</b>	Prodigiosin –A miracle molecule	Samrat Chatterjee	Organized by : Department of Chemistry and Microbiology, Gurudas College		National Seminar	Paper Presented
286	Sanskrit	<b>International Seminar on Sanskrit</b>		Mrinal Pakira	Organized by: Department of Sanskrit, University of		International Seminar	Paper Presented

					Calcutta			
28 7	Sansk rit	<b>Workshop on Manuscri ptology and Paleograp hy</b>		Mrinal Pakira	Organized by: Asiatic Society		Workshop	Attended
28 8	Sansk rit	<b>Workshop on Catalogui ng and Bibliograp hy</b>		Mrinal Pakira	Organized by: School of Vedic Studies, Rabindrab harati University, Kolkata		Workshop	Attended
28 9	Zoolo gy	<b>Research Workshop on Diagnostic and Therapeut ic Immunolo gy</b>		Saurav Dutta	Organized by: Departme nt of Biochemis try, College of Medicine & JNM Hospital, WBUHS, Kalyani in associatio n with Indian Immunolo gy Socity & Talwar Research Foundatio n		Research Workshop	Participate d

29 0	Zoology		Copper Induces ROS- mediated hepatotoxicity and immunotoxicity through p73- dependent apoptotic pathways	Suman Purohit	Venue: Department of Zoology, University of Calcutta, 35, Ballygunge Circular Road, Kolkata- 700 019			Poster Presented
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**Birla Institute of Technology & Science, Pilani**  
Pilani Campus



**12<sup>TH</sup> NATIONAL CONFERENCE ON SOLID STATE IONICS**

DECEMBER 21-23, 2017

**Chief Patrons**

Prof. Ashutosh Sharma

Prof. Souvik Bhattacharyya

**Patron**

Prof. Ashoke K. Sarkar

**Chair**

Prof. S. C. Sivasubramanian

**Convener**

Prof. Anshuman Dalvi

**Co-convener**

Prof. Raj Kumar Gupta

**Organizing Secretary**

Prof. Navin Singh

Dear Prof. Ruma Ray,

I am very happy to inform you that this time the biennial NCSSI will be organized by the Physics department, BITS Pilani in association with Indian Solid State Ionics Society (ISSIS) with a theme, "**SOLID STATE IONICS: FUNDAMENTALS TO ENERGY STORAGE AND CONVERSION DEVICES**". It will focus on the following broad areas:

- **Solid state ionic materials:** ionic glasses, solid and gel polymer composites, proton conductors, ionogels, ionic liquid based superionic systems
- **Ionic/electronic/mixed conductors:** Theory and modeling
- **Characterization techniques** in solid state ionics
- **Hybrid electrolyte systems** for devices and electric vehicles
- **Solid state ionic devices:** Li<sup>+</sup> ion Batteries, Fuel cells, Supercapacitors, sensors, electrochromic displays and Electrochemical solar cells, Cathode and Anode materials for devices.
- **Low dimensional ionic systems:** Micro batteries, nanoionics
- **Bioionics:** Ionic transport in biological systems, microbial fuel cells

In view of your significant contributions and expertise in this field, the organizing committee of NCSSI-12 cordially invites you to deliver **Invited Talk** on any one of the above areas, or any topic of your choice that you may feel relevant to the conference. Looking forward to have you in Pilani with us.

Looking forward to your early positive reply.

Sincerely,

(Anshuman Dalvi)

Convener, NCSSI-12



Birla Institute of Technology & Science, Pilani  
Pilani Campus, Vija Vihar  
Pilani 333001, Rajasthan, India

Email: [ncssi12@birla.ernet.in](mailto:ncssi12@birla.ernet.in)

Tel: +91 1596 515388

Fax: +91 1596 244153

Web: <http://www.bits-pilani.ac.in/pilani/NCSSIHome>



**Birla Institute of Technology & Science, Pilani**  
Pilani Campus

# Certificate of Participation

Prof./ Dr./ Mr./ Ms. *Ruma Ray* ..... from *GURUDAS COLLEGE*  
is being awarded this certificate for participation in the **12<sup>th</sup> National Conference on Solid State Ionics (NCSSI-12)** organized by Department of Physics BITS Pilani, Pilani Campus during December 21-23, 2017. The organizing committee appreciates the contribution as *Distinguished Lecture/ Contributory Talk/Poster Presentation* in the conference.

Prof. Anshuman Dalvi (Convener NCSSI-12)  
HOD, Department of Physics





Workshop on  
**INTRODUCTION TO FRACTAL GEOMETRY  
AND ITS APPLICATION IN CONDENSED  
MATTER PHYSICS**


Organized by:

Condensed Matter Physics Research Center, Jadavpur University

**CERTIFICATE OF PARTICIPATION**

This certificate has been awarded to Prof./Dr./Mr./Ms./Mrs. RUMA RAY  
of GURUDAS COLLEGE in appreciation of his/her participation/ oral  
presentation/ Invited Talk titled "POLYMER AS FRACTALS"

in the workshop on "Introduction to Fractal Geometry and its Application in  
Condensed Matter Physics" held at Jadavpur University, Kolkata, India on December 13 and 14, 2018.

  
Sujata Tarafder  
Ex. Professor of Physics  
Jadavpur University

  
Prof. Arjungho Chatterjee  
Co-Ordinator of CMPRC  
Jadavpur University



# 常熟理工学院

CHANGSHU INSTITUTE OF TECHNOLOGY

Mr. Samrat Chatterjee  
Assistant Professor,  
Gurudas College  
GC 200 Sector 3  
Saltlake City, Kolkata  
700106, India

Dated on 7<sup>th</sup> Nov 2014

Dear Mr. Samrat Chatterjee,

I am honored to invite you, Mr. Samrat Chatterjee (born on 12.09.1977, PassNo: K7380027) to visit our Biology and Food Engineering School of Changshu Institute of Technology, China from 23.12.2014 to 05.01.2015. During your visit you will deliver a series of lectures and interact with our faculties and students. The local hospitality such as accommodation and transport will be arranged by our institute.

I hope you will accept our invitation and look forward to seeing you in Changshu soon.

With best regards,

  
Prof. Yaoping Han  
Dean of Biology and Food Engineering School  
Changshu Institute of Technology  
No. 99 Nansanhuai Lu  
Changshu, 215500  
China

地址：中国江苏省常熟市南三环路99号 邮编：215500

Address: No.99, Third Ring Road (South), Changshu, Jiangsu, China Zip Code:215500 <http://www.csitg.edu.cn>



## Flavouring agents

- Sulphites  
Onions and ginger are examples of natural sources commonly used in chicken broth, oyster sauce, soup bases for instant noodles, many fast-foods and restaurant dishes.
- Monosodium Glutamate (MSG)  
This is a common additive. It is used to enhance the flavor of food. It is commonly used in "chicken broth", "instant noodles", "fast-foods", "restaurant dishes" and "fast-foods".



# K. K. DAS COLLEGE

[Affiliated to the University of Calcutta]

NAAC Accredited

GRH-17, Baishnabghata-Patuli Township

P.O. - Garia, Kolkata - 700 084

<http://www.kkdascollege.ac.in> ✦ E-mail : [kkdascollege@yahoo.com](mailto:kkdascollege@yahoo.com)

☎ : (033) 2462-5999

Mob : 8902384436

Ref. No. ....

Date ..... 201

To  
Dr. Swati Moltra  
Assistant Professor  
Department of English  
Gurudas College

05.03.2019

Sub: Invitation for lecture at the Department of English, K. K. Das College

Dear Madam,

On behalf of the Department of English, K. K. Das College, I am pleased to invite you to deliver a lecture on 13.03.2019 from 2.00 p.m. onwards at our college. As per our prior conversation, you will be speaking on the topic, "Indian Writing in English: An Overview". We are looking forward to meeting you.

Thanking you,

Yours sincerely,

Principal

[Dr. Soumana Biswas]

Head of the English Department

Dr. Ranjyotina Prasad Chakraborty  
Principal  
K. K. DAS COLLEGE  
Garia, Kol-84



বাংলাদেশ ইতিহাস সমিতি  
Bangladesh History Association

**Dialogues in History:  
Women's Literary Space, Identity and Diaspora**

**Speakers**

**Dr. Maroona Murmu**  
**Dr. Swati Moitra**  
**Dr. Samana Madhuri**  
**Dr. Anurima Chanda**

Jawaharlal Nehru University (JNU), New Delhi, India

**Discussants**

**Dr. Fakrul Alam**

Pro Vice-Chancellor, East-West University

**Dr. Sonia Nishat Amin**

Professor, Dept. of History, University of Dhaka

**Dr. Salimullah Khan**

Professor, University of Liberal Arts Bangladesh, Dhaka

**Chair**

**Professor Sharif Ullah Bhuiyan**

President, Bangladesh History Association

**January 24, 2018**

**Sirajul Islam Lecture Hall**  
**Lecture Theatre, University of Dhaka**





# An account on pollen viability with remarks on apertural evolution



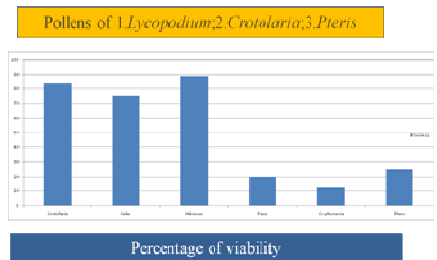
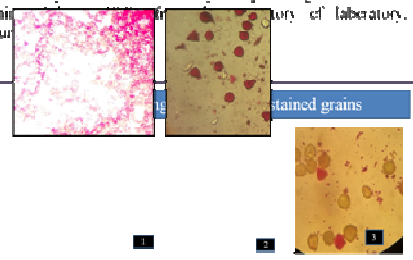
Deva Ashish Gupta<sup>1</sup>, Archana Mitra<sup>1</sup>, Gobinda Mondal<sup>1</sup>, Anwesha Biswas<sup>2</sup>  
<sup>1</sup>Department of Botany, Gandhi College  
<sup>2</sup>Assistant Professor, Department of Botany, Gandhi College  
 Email: Anwesha.botan@gnac.edu.in

**Abstract**  
 Viability is necessary for the processes of pollination and fertilization. The longevity of pollen grains depends on a number of factors viz. taxonomic status of the plants, times of storage etc. There are several reasons for loss of viability like inability of pollens to resist desiccations, loss of integrity of pollen wall. The present analysis deals with study of pollen grains for viability using 1% Acetocarmine. Laboratory of Botany, Gandhi College, Guwahati. The study also throws light on pollen diversities in different plant groups. It can demonstrate the evolutionary trends of pollen aperture type. (Taktajian, 1980)  
 Key words: Pollen viability, plant diversity, apertural evolutionary trends, pollen repository.

**Objectives**  
 ✓ To evaluate the viability of collected pollen sample  
 ✓ To study the pollen diversities.  
 ✓ To understand the apertural evolutionary patterns

**Introduction**  
 Viability is the ability of the pollen grains to perform its function of delivering male gametes to the embryo sac. It is an index of its quality and vigour. Reports on the storage of date palm were the earliest record of pollen viability. The longevity of pollen grains depends on a number of factors viz. taxonomic status of the plants, times of storage etc. There are several reasons for loss of viability like inability of pollens to resist desiccations, loss of integrity of pollen wall.

**Materials and methods**  
 The present analysis deals with study of pollen grains for viability using 1% Acetocarmine. Laboratory of Botany, Gandhi College, Guwahati.



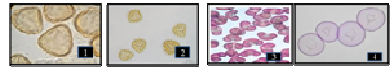
## Habits Of Common Pteridophytes, Gymnosperms And Angiosperms



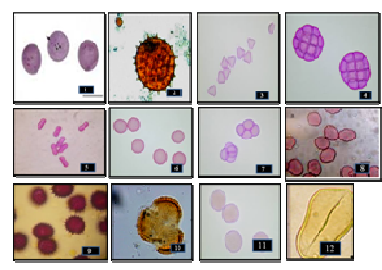
POLLEN REPOSITORY



POLLENS OF DIFFERENT GROUPS OF PLANTS SHOWING DIFFERENT TYPES OF APERTURES



Species of 1. *Lycopodium*; 2. *Crotalaria*; 3. *Pteris*  
 Pollens of 5. *Cryptomeria*; 6. *Pinus*



POLLENS OF ANGIOSPERM  
 1. *Mimosa*; 2. *Hibiscus*; 3. *Neolampyrus*; 4. *Allisia*; 5. *Cucurbitaria*; 6. *Chenopodium*  
 7. *Abutilon*; 8. *Crotalaria*; 9. *Adiantum*; 10. *Cassia*; 11. *Mimosa*; 12. *Sida*

**Conclusions**  
 ✓ The pollen, treated with 1% Acetocarmine remains weak stained and stained are considered respectively as nonviable and viable grains.  
 ✓ From freshly collected samples about 84% pollen grains of *Crotalaria sp.*, 65% of *Sida sp.* and 89% of *Hibiscus sp.* were stained. On the other hand, only 20% of *Cycas sp.*, 12% of *Cryptomeria sp.* remained stained from the repository sample.  
 ✓ It can be concluded that the life span of the pollen grains is determined primarily by storage and taxonomic status of plants.  
 ✓ Pollen characters exhibits diverse forms.  
 ✓ Different apertural types on pollen surface demonstrates tendency to change position from proximal to distal face or even the zonal and global distribution and from trilete to tricolpate through monocolpate grains and the tricolpate condition have give rise to the polycolpate, triporate, pantoporate situation.  
 The highest stage of evolution is observed in compound apertures like in tricolporate or triporate types. (Taktajian et al. 1980)

1. <https://doi.org/10.1007/978-93-80437-11-1>

11/10/2017

SAHA/SPF/1718/072



**Sahapedia**

C-1/3, First Floor,  
Safdarjung Development Area,  
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Tel. 011-4106 6046-47  
contact@sahapedia.org  
www.sahapedia.org

**Subject: Letter of Engagement**

Dear Dr. Moitra,

As a part of the Sahapedia-UNESCO Fellowships 2017, we are pleased to offer you the position of Designate Sahapedia Project Fellow (SPF), commencing from **October 1<sup>st</sup>, 2017**. Set forth below are the terms of your engagement with Sahapedia.

1. All Designate Project Fellows are to complete their assignments within 12 weeks of the date of commencement.
2. The total award is of **Rs. 44,445** for the SPF, which is inclusive of both honorarium and other expenses incurred during the process of completion of the assignment.
3. Sahapedia will make the aforementioned amount available to SPF / SRF in three installments, 20% upon signing of this agreement, 40% upon submission of progress report and 40% upon completion of the assignment to the satisfaction of Sahapedia.
4. Modules on Sahapedia typically comprise an overview article, articles on subsidiary/specialized themes, video interviews with experts and practitioners with transcriptions, an image gallery and/or audio and/or video, maps, timelines and lineage trees wherever relevant, a bibliography and external links, and Quick Facts/Definitions if needed. **Specific deliverables and timelines** fixed and detailed on mutual agreement between the Content team and yourself are attached to this letter.
5. The first installment (20% of total amount) will be released upon receipt of the copy of your **PAN card** and a formal acceptance of the terms and conditions contained in this document. Applicable Income tax will be deducted at source as per the provisions of the Income Tax Act, 1961.

6. The subsequent instalments will be released on completion of the work as set out in the plan submitted at the outset by the Designate Fellow.
7. A **progress report** giving details of documentation and writing carried out, places visited, persons met etc. in connection with the award must be sent to Sahapedia before the release of the second instalment. A detailed **plan of the expenditure** incurred as a part of the assignment must be provided as well.
8. All material created and curated for the module will be uploaded to Sahapedia's online portal. Sahapedia is committed to the Creative Commons approach, to maximize the potential of the Internet to widen access to research, knowledge and artistic creativity, with full credit to creators. It will be licensed under the IPR policy of Sahapedia (CC-BY-SA 4.0). The Fellow will be credited for the work submitted.
9. Sahapedia and UNESCO will have the unfettered right to use and/or reproduce the whole or parts of the work arising out of the award in any of its publications without additional permission or payment.
10. Sahapedia and UNESCO are absolved of any liability, if this work has appeared in any medium without the knowledge or permission of the Fellow.
11. Sahapedia and UNESCO shall have no obligation under Sections 51, 63 and 65 of the Indian Copyright Act, 1957 to the extent of any claim of infringement or misappropriation resulting from:
  - (i) The work submitted by the Fellow to Sahapedia has to be an original piece of work and not reproduced in any way from any other medium. All submitted work shall be subjected to rigorous scrutiny by anti-plagiarism software.
  - (ii) Any third party claim arising in regards to this work.
12. The Fellow shall indemnify and defend Sahapedia and UNESCO, and each of its respective officers, employees, agents, and assigns, or any of them from (hereafter collectively known as

"Indemnified Parties") and against all claims, suits, demands, actions, causes of action, proceedings, judgments, assessments, deficiencies, and charges brought against the indemnified Parties for all damages, losses, costs, liabilities, and expenses (including reasonable attorney and professional fees and costs) arising from or incidental to Claims, which in whole or in part, directly or indirectly violate any Intellectual Property rights of any third party.

13. Requests related to extension of time-period and allocation of funds during the period of the Fellowship may be made directly to the Content or Finance team of Sahapedia.
14. The timeline mentioned above should be strictly adhered to. In case of failure to submit stipulated deliverables on part of the Designate Fellow, Sahapedia reserves the right to withhold further payment, issuance of certificate and the right to claim restitution of payment made hitherto. All advances made will be repayable to Sahapedia, unless informed to and approved by Sahapedia, in writing.
15. The Fellow shall be liable to forfeiture of the award upon the institution of judicial proceedings of civil or criminal nature against them.

Best regards,

  
Vaibhav Chauhan  
Secretary  
Sahapedia

I hereby accept the offer on the stipulated terms and conditions.

Address: Swati Molra  
AD-39 (G Floor), Sector -1,  
Salt Lake, Kolkata, West Bengal-700064.  
Contact No.: 9968173550

Signature  
Swati Molra

13/04/2019

Course On Fundamentals of Q.M  
in Linear Vector Space Formulation and  
Some applications.

13.4.19 (2 Hours Lectures)

1. Swainali Sarkar Lady Brabourne College 905724379
2. Adyapita Dutta Lady Brabourne College 9374847949.
3. Rakhi Saha Lady Brabourne College 7477577632
4. Joya Ghosh Dastidar Lady Brabourne College 8210573751/8179054429.
5. Anwesha Hoodati Lady Brabourne College 8013333113
6. Ankita Ray Jogamaya Devi College 6290446162.
7. Anushree Sen Jogamaya Devi College 8777620944.
8. Sayan Mondal Heritage Inst. of Technology 9874667403.
9. Subalpa Kundu Scottish Church College 9433527998
10. Anvita Arora Scottish Church College 8240792306
11. Kavitar Chakraborty Scottish Church College 8017838734
11. Souryan Mondal )) 9778878548
13. Debasmitha Das Uttarpuram Paramahansa College 8339867402

Attested...a

class  
register

14. Torika Chakraborty	Ramsaday college	9593655385	1.
15. Madhumita Sanyal	Ramsaday college	7477317801	2.
16. Soumya Panigrahi	Vidyasagar evening college	7602482948	3.
17. Subhansu Prasad	Memorifus Education Society college	9903567307	4.
18. Anurupa Kanti	Gurudas college	9874750624	5.
19. Anjali Bhatt	Gurudas college	9973145740	6.
20. Avishka Das	Gurudas college	9748741804	7.
21. Kallika Das	Gurudas college	8276845730	8.
22. Srujanika Mallik	Gurudas college	9173777527	9.
23. Anjali Mishra	Gurudas college	4551892936	10.
24. Sneha Ghosh	Shibpur Dinabandhu college	8622905990	11.
25. Ananta Pal	Asutosh college	8697354560	
26. Kankarajee Shaha	Asutosh college	8981765998	
27. Kajari Das	Gurudas college	9051283210	
28. Ananta Mukherjee	Malyamu Gov. Engg college	7278881183	

Attended  
T. Mitra

21.5.19

### 3 Hours Lecture

1. Moubuni Bandyopadhyay M.E from Jadavpur University,  
Ph.D Student
2. Kothika Das Gurudas college
3. Swagata Mallik Gurudas College
4. sagor Balli gurudas college
5. Kaban Deb Gurudas college
6. Sneha Ghosh Shibpur D.B college
7. Anwesha Hoodati Lady Burabowme College
8. Koushan Mukherjee Kalyani Govt. Engineering College
9. Tanisha Chakraborty -Amta Ramsaday college
10. Modhumita Sarkar Amta Ramsaday college
11. Debasmita De Uttarpara Pansamohan college
12. Soumya Panja VidyaSagar Evening college
13. Karikaisha shaw Asutosh College
14. Amit Kumbhakar Asutosh College
15. Brateen Pal Asutosh College

Attended  
T. Mitra

Date 23/04/16

Lecture no.

Students Present: (Outgoing Part-III internal & External students)

- 1) Subhasini Chakraborty
- 2) Rinku Dutta
- 3) Anshu Roy
- 4) Arjit Sinha
- 5) Dhruvjit Sengupta
- 6) Nalika Das (Vidyasagar college for women)
- 7) Sumita Mukherjee (Vidyasagar college for women)
- 8) Manami Roy (Bokhal Memorial girls' college)

Burundia College

- 1) Se
- 2) Sa
- 3) Si
- 4) S
- 5) S
- 6) S
- 7) S
- 8) S
- 9) S
- 10) S

Teacher: Arjit Sinha 23/4/16 (Lecture-3)  
 Teacher: T. Mitra 23.4.16 (Lecture-2)

Date - 27/04/16

Students Present: (Outgoing)

- 1) Soumya Bhattacharya
- 2) Subhasini Chakraborty
- 3) Dhruvjit Sengupta
- 4) Rinku Dutta
- 5) Arjit Sinha
- 6) Rahul Pandey (Rambanhi Andrews College)
- 7) Manami Roy (Bokhal Memorial girls' college)

Teacher: Arjit Sinha 27/04/16 (Lecture-2,3)  
 Teacher: T. Mitra 27.4.16 (Lecture-2,3)

Date

Date - 22/5/16

Students Present

- 1) Souvik Bhattacharjee
- 2) Sabyasachi Chakraborty
- 3) Saurindeep Mandal
- 4) Dhruvraj Sengupta
- 5) Rinu Dutta
- 6) Anujit Saha
- 7) Sunit Maji
- 8) Manami Roy (GIRG)
- 9) Pranjal Sur (Dinabandhu Andrews College)
- 10) Anshu Bhattacharya ( " " )
- 11) Lalul Pandey ( " " )

Teacher: Anujit Acharya (Lesson 4)  
21/5/16

Teacher: T. Mitra (Lesson 4, 5)

Date - 4/5/16

Students present

- Anujit Saha
- Rinu Dutta
- Sunit Maji
- Dhruvraj Sengupta
- Saurindeep Mandal
- Pranjal Sur
- Lalul Pandey

Teacher: T. Mitra (Lesson 6, 7)

Teacher: Anujit Acharya (Lesson 3, 6)

4/5/16

Date - 11/05/16

Students present

1. Anujit Sinha
2. Rinika Datta
3. Sunil Maji
4. Dhruvrajyoti Sengupta
5. Manami Roy
6. Rajal Sur
7. Rahul Pandey

5) A

Teacher: Binrajit Ashikary (1, 3)  
 Teacher: T. Mitra (8, 9)

Date: 14/05/16

Students present

1. Manami Roy (6, 10, 12)
2. Dhruvrajyoti Sengupta
3. Sunil Maji
4. Saubhagya Mandal
5. Anujit Sinha

Teacher: Binrajit Ashikary (9, 10)  
 Teacher: T. Mitra (11, 12)

Date: - 31/5/16

Students Present

- 1) Saubhagya Mandal
- 2) Manami Roy (6, 10, 12)
- 3) Dhruvrajyoti Sengupta
- 4) Rinika Datta

5)  
 6)  
 5)  
 6)

Tea

5) Amigjit Singh

Teacher Present. 31.5.16. (10, 11, 12, 13, 14, 15)  
T. Mitra

Date - 03/06/2016

- 1) Amigjit Singh
- 2) Gokuladeep Mondal
- 3) Pinku Datta
- 4) Dhrubojyoti Sengupta
- 5) Sunil Maji
- 6) Manami Roy

Teacher: Pranabjit Acharya (16, 17, 18, 19)

Teacher: T. Mitra (Lectures 16, 17, 18)  
Date: 5.6.16

- 1) Amigjit Singh
- 2) Gokuladeep Mondal
- 3) Pinku Datta
- 4) Dhrubojyoti Sengupta
- 5) Manami Roy (GMCE)
- 6) Rishav Banerjee
- 7) Prajwal Suresh (DAC)
- 8) Lakshmi Paulraj (D.A.O)

Teacher: T. Mitra (Lectures 17, 18, 19)  
Date: 17.6.16

STU

1) Arjit Sinha  
2) Sanku Mandal  
3) Manami Roy (GMBE)  
4) Debraj Sengupta  
5) Rahul Pandey (DAC)

1) Debra  
2) M

Date: 22/6/16

Teacher: Arjit Sinha

Students present

- 1) Sanku Mandal
- 2) Arjit Sinha
- 3) Debraj Sengupta
- 4) Manami Roy (GMBE)
- 5) Arjit Sinha
- 6) Rahul Pandey (DAC)

Date: 24.6.16

Teacher: T. Mitra

Discussions on various numerical problems

Students Present: (3 Hours)

- 1) Arjit Sinha
- 2) Sanku Mandal



Date : 28/6/16

Teacher - Dr. BISWAJIT ADHIKARY

Students present:

- 1) Dibrujyoti Sengupta
- 2) Manami Roy (GM6C)

Date :- 11/3/17

Lecture - 2

Lecture - 3

Students

Dhrubojyoti Sengupta  
Manami Roy  
Aniket Sinha  
Shomika Barman  
Rahul Pandey  
Anindya Ganguly

Teacher Dr. Tapas Mitra

T. Mitra

Teacher : Dr. Biswajit Adhikary

Biswajit Adhikary

Presidency University (M.Sc)

Calcutta University

Calcutta University

M.V.

C.C.

C.L.

Date - 18/3/17

Lecture - 3

Lecture - 4

Students

Dhrubojyoti Sengupta  
Manami Roy  
Aniket Sinha  
Shomika Bar  
Puja De  
Rounika Roy  
Rahul Pandey  
Anindya Ganguly

Teacher Dr. Tapas Mitra

T. Mitra

Teacher : Dr. Biswajit Adhikary

Biswajit Adhikary

Presidency University (M.Sc)

Calcutta University

Calcutta University

Calcutta University

Calcutta University

Calcutta University

Calcutta University

Calcutta University

22/3/17

Lecture-4

Teacher - Dr. Tapas Mukherjee  
Ses. - T. Mitra

Le 6

Lecture - 5

Teacher: B. Swajit Dehikari  
Pradyumn Acharya

Students  
Anuj  
Man  
Laksh  
Dhruv

Students Present:

Arijit Sankar	CU
Shobhita Pal	CU
Suchismita Barman	CU
Rahul Pandey	CU
Soumyadipita Ray	C.U.
Pratik Chandra	CU
Dhrubojyoti Sengupta	Presidency University

Le

Date: 01/4/17

Teachers

Lecture: 5

T. Mitra 01.4.17.

S

Lecture - 7

B. Swajit & Pradyumn

A  
M  
L  
A  
D

Students Present

(1) Arijit Sankar	CU
(2) Manami Roy	"
(3) Shobhita Pal	"
(4) Suchismita Barman	"
(5) Dhrubojyoti Sengupta	PU
(6) Anindya Ganguly	CU

Lecture - 5

T. Mitra 22.4.17.

Students

from  
CAG

Arijit Sen  
Munishi Roy  
Sanku Pal  
Dhruv Singh

Calcutta University  
"  
"  
Pondicherry University

Lecture - 8, 9

Arijit Mitra  
29/4/17

Students

Arijit Sen  
Munishi Roy  
Sanku Pal  
Anindya Ganguly  
Dhruv Singh

Calcutta University  
"  
"  
C.U.  
Pondicherry University

Lectures 1,2,3

Topic: Stat. Mech.  
Teacher: T. Mitra  
Date: 27.6.17.

Students

Moumuni Roy  
Arijit Sinha  
Anindya Ganguly  
Subhasree Chakrabarty  
Dhruvrajit Sengupta  
Sourabjit Mandal  
Nupita Koley  
Anita Saha  
Ajay Banerjee

Institution.

C.U.  
CU  
C.U.  
SXC (C.U.)  
P.U.  
D.U.  
C.U.  
C.U.  
C.U.

Lectures 4,5,6

Topic: Stat. Mech.  
Teacher: T. Mitra  
Date: 29.6.17.

Dhruvrajit Sengupta  
Nupita Koley  
Anita Saha  
Ajay Banerjee  
Moumuni Roy  
Nellimrita Barman  
Sourabjit Koley  
Anindya Ganguly  
Arijit Sinha  
Subhasree Chakrabarty

P.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.  
SXC (C.U.)

Attended  
T. Mitra

Lectures 7/8

Teacher: T. Mitra  
Date: 2, 3, 7, 17.

Aparajita  
Arijit Senha  
Anpita Koley  
Dhrubajyoti Sengupta  
Manamun Roy  
S. S. Sengupta  
S. S. Sengupta

C.U.  
C.U.  
C.U.  
P.U.  
C.U.

Lectures 9/10

Teacher: T. Mitra  
Date: 6, 7, 17.

Dhrubajyoti Sengupta  
Manamun Roy  
S. S. Sengupta  
Arijit Senha  
Shamrita Pal  
Anpita Koley  
S. S. Sengupta  
Ayan Banerjee  
Anindya Ghoshal

P.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.  
C.U.

Lectures 11/12

Teacher: T. Mitra  
15-7-17.

Ayan Banerjee  
Arijit Senha  
Sourodeep Mondal  
Anpita Koley  
Sushmita Bhattacharya  
Shamrita Pal  
Manamun Roy  
Dhrubajyoti Sengupta  
Rabindranath

C.U.  
C.U.  
P.U.  
C.U.  
C.U.  
C.U.  
C.U.  
P.U.  
C.U.

Attended  
- Mitra

Lectures 13, 14

Teacher: T. Mitra  
17.7.17.

Date

Dhambajyoti Sengupta	P.U.	Laxmi
Manami Roy	C.U.	Dipak
Souradeep Mandal	D.U.	Mou
Arujit Sinha	CU	Sud
Shamita Pal	C.U.	A
Suchismita Barman	C.U.	Sha
Arpita Koley	CU	Sou
Ayan Banerjee	C.U.	
Anindya Ranyuly	C.U.	

Lectures 13, 14, 15

T. Mitra 19.7.17.

Anindya Ranyuly	C.U.
Souradeep Mandal	D.U.
Manami Roy	C.U.
Ayan Banerjee	C.U.
Arujit Sinha	CU
Dhambajyoti Sengupta	P.U.
Shamita Pal	C.U.
Suchismita Barman	C.U.
Arpita Koley	CU

Lectures 16, 17, 18

T. Mitra 27.7.17.

Ayan Banerjee	C.U.
Suchismita Barman	C.U.
Manami Roy	C.U.
Arpita Koley	C.U.
Anindya Ranyuly	C.U.
Arujit Sinha	U.
Jayanta Jana	CU.
	C.U.

Lectures 1, 2, 3, 4.

UCL Higgs' Mechanism [Superconductivity]

Date: 29.12.17.

Teacher: T. Mitra.

Rajat Saha  
Srinivas Sankar  
Manish Singh  
Gaurav Kumar  
Arpit Kataria  
Ishanika Pal  
Sourabh Mondal

CU  
P. S.  
CU  
CU  
CU  
CU  
D. S.

