

## **MINOR RESEARCH PROJECT**

### **Members of Research Projects Review Committee (by virtue of post)**

Teacher-in-charge

Convener, Academic sub-committee

IQAC Co-ordinator

Secretary, Teachers' Council

Teachers' Representative in Governing Body (Any one member)

## Minor Research Projects (Completed)

### MRP 1

**Title of the UGC sponsored Minor Research Project:**

ASSESSING THE VULNERABILITY OF WEST BENGAL TO NATURAL DISASTERS: A DISTRICT LEVEL STUDY . (NO.F.PHW-47/12-13(ERO)

**Principal Investigator :**Dr.Tapasree Banerjee, Department of Economics, PrabhuJagatbandhu College

**Tenure of the Project:** February 2013 to November 2014.

**Amount Sanctioned:** Rs. 1, 32,000.

**Object of Study:**

From prehistoric times, human beings have been affected repeatedly by natural disasters. Volcanic eruption, fierce flood, disastrous earthquake were causes of devastation of many civilizations in ancient time. Destruction by disaster and replenishment afterwards were the subject of various mythologies. Also the way of mitigation and preparedness were told in some ancient literatures.

Among a host of events , a specter of disasters is what India is vulnerable to. Of India's 3.29 million square kilometer area, half is prone to moderate to severe seismic activity. Of the earthquakes that have disturbed her structural foundation in the last 100 years , 17 have been above 6.0 on the Richter scale. One-third of India's area is prone to severe floods and droughts. Landslides , heat waves , thunderstorms, floods and a string of other disasters also make their presence felt.

West Bengal is a state in eastern regions. It is the fourth most populous state of India and also the seventh most populous sub-national entity in the world. West Bengal stretches from the Himalayas in the north to the Bay of Bengal in the south spreading over 88,752 square kilometers. The Darjeeling Himalayan hilly region in the northern part of the state belongs to the eastern Himalaya. The narrow Terai region separates this region from the plains , which in turn merges with the Ganga Delta towards the south. The Rarh region intervenes between the Ganga Delta in the east and the

Western plateau in the west. A small coastal region is on the extreme south, while the Sundarbans Mangrove forests form a notable landmark at the southernmost tip of the Ganga Delta.

The predominant natural disasters like flood, cyclones and storm surges, drought, landslides, erosion, hailstorm, thunder squalls, and sometimes earthquakes and tsunamis are observed in the state because of its geo-morphological and climatic conditions. Floods and cyclonic storms occur almost every year in different parts of the state and cause huge loss of life and property.

In the present research work an attempt has been made to have a preview of India's disaster scenario , ponder through a brief history of natural disasters in West Bengal, and study the geomorphology of the natural disasters in West Bengal. A review of contemporary literature on various concepts of vulnerability is done .An assessment has been made of the vulnerability of West Bengal to natural disasters and the construction of the vulnerability index has been done. The impact of disaster based on a pilot survey in Nadia district is presented and a research work on the effect of disaster on environmental sustainability has also been done. Finally an attempt has been made to study the role of disaster management in national development and the disaster management scenario in West Bengal is also depicted.

## **MRP 2**

**Title of the UGC sponsored Minor Research Project:** Accuracy of Performance Appraisal in a Public Sector Organization

**Principal Investigator :**SandhyaGhosh (Pal), Department of Commerce of PrabhuJagatbandhu College.

**Tenure of the Project:** 21.12.2010 to 21.06.2012.

**Amount Sanctioned:** Rs. 1, 47,500.

**Letter No. –** PHW-049/10-11 dated 1st December, 2010.

**Object of the Study:** The object of the study was to identify the existence of possible appraisal biases in a Public Sector Organization based on the perceptions of the employees.

### **MRP 3**

**Principal Investigator :**Dr.Ajit kumarBera, Department of Bengali, PrabhuJagatbandhu College

#### **Details of the UGC sponsored Minor Research Project:**

1. **Letter No.:** PHW-027/00-01 dated 08/08/2000,  
**Amount Sanctioned:**Rs. 30000.  
**Title of the project:** “Banglarlokeyata dharma o samajiksamamway”.
2. **Letter No.:** MRP PHW/027/0405 dated 11/03/2005.  
**Amount Sanctioned:**Rs. 80000  
**Title of the project:** “Gramonnyon: Kathay o karme Rabindranath abongBartamanPrekshit”.
3. **Letter No.:** PHW 080/09-10 dated 07/09/2009.  
**Amount Sanctioned:**Rs. 102000.  
**Title of the project:** “Madakasakti: Rastra o samaj –Sahitya o samskriti”.

## **Minor Research projects (Ongoing)**

SPONSORING AGENCY: UGC

### **MRP1**

Principal Investigator : **Dr.Kakoli Banerjee, Dept. of Chemistry**

Project Title: **Chemistry at the backdrop of society: Detection of heavy metals in everyday used commodities**

The study is a probe on the heavy metal contamination in daily used articles and determination of the concentration of heavy metals by different analytical techniques.

Date of implementation : 12.04.2014

Sanction No. : F. PSW-062/13-14 (Ongoing).

Approved Allocation: Rs. 4,75,000

### **MRP 2**

Principal Investigator : **Dr.ManojitGhosh, Dept. of Economics**

Sanction No. : PHW-107/13-14

Approved Allocation: Rs. 2,35,000

AREA OF SPECIALIZATION: WETLAND MANAGEMENT

**TOPIC: INTEGRATED ECOLOGICAL AND SOCIO ECONOMIC PLANNING AND HYDROBIOLOGICAL INFLUENCE FOR WETLANDS.**

This study focuses on ecological, socio-economic conditions in and around the wetlands along with the case of biodiversity referring to variety and variability of all types of microbes, plants, animals on earth.

**MRP 3**

Principal Investigator :**Dr.BallariBagchi, Dept. of Geography**

Sanction No.: F.PSW-063/13-14 Dated 18 March 2014

Approved Allocation:           250000

TOPIC   **RURBANISATION: A PARADIGM IN URBAN  
SCENARIO OF HOWRAH DISTRICT**

## **Recent Publications**

### **Department :Geography**

Faculty: **Dr.SaradaMandal**

1. Books

The Violation of Human Rights of Children Working in the Silk-weaving Industry of India

2. Monograph:

The Rite of Wrongs, Human Rights in India edited By Ajanta Paul, October, 2013, Published by Avenel Press, Burdwan

ISBN 978-93-80761-33-6

Faculty : **Gargi Chakraborty**

Ph.D thesis submitted on January, 2014

Topic : Pattern of change of accessibility and its impact on development of Haora district : A Geographical Analysis

Publication : Urbanisation in Haora : A Socio-Economic Analysis

Primus Publication, Delhi

### **Department: Bengali**

1. Faculty: **Dr.Ajit Kumar Bera**

Books

Madakashakti-rastra, samaj o sahitya”-

Published by Pustokbiponi (2012)

2. Faculty: **Dr.Avijit Banerjee**

Books

1. “Madhya yugersahityaegatanugatikatatabanammoulikata”bybangiyasahityaSAmsadPrakashana. (2008,2012)
2. “BaishnabPadabalirNabamulyayan” by Akshar Publisher-(2009,2013)

**Department: Commerce**

Faculty: **SandhyaGhosh (Pal)**

List of Publication:

1. “A Study on Acceptability of Performance Appraisal System to the raters in a Public Sector Organization”, International Journal of Business, Management & Social Science, Vol. II, Issue 7(VI), March 2013, p.9-12.
2. “Rater/ Ratee Perceptions of Accuracy of Performance Appraisal System In Indian Railways: A Study, International Research Journal on Business Sciences, Vol.1(I), Jan-June, 2013, p. 1-5.
3. “A Study on Performance Appraisal Errors in a Public Sector Organization”- International Journal of Marketing Theory, Vol.2 (2), July- Dec. 2012 p. 169-187.

**Department :Computer Science**



Faculty: **SumonaBandyopadhyay**

1. **S. Bandyopadhyay** (with R. K. Pal). "Computation of all Possible Maximal Cliques of a Weakly Triangulated Graph in Polynomial Time", published in *Proceeding of Science and Information Conference 2014*, technically co-sponsored by IEEE and Springer, pp-159-168, Aug 27-29, 2014, London, UK. This paper is indexed in IEEE database.
2. **S. Bandyopadhyay** (with R. K. Pal). "The Problem of Computing  $k$ -Disjoint Maximal Cliques Covering a Maximum Number of Vertices for Weakly Triangulated Graph", published in *Proceeding of Science and Information Conference 2014*, technically co-sponsored by IEEE and Springer, pp- 234-241, Aug 27-29, 2014, London, UK. This paper is also indexed in IEEE database.
3. **S. Bandyopadhyay** (with R. K. Pal), "Selection of  $k$ -Disjoint Channels for Advertising with an Aim to Maximize Viewers' Count and Minimize Cost Constrained by Budget", *Annals of Pure and Applied Mathematics*, vol-7, no-1, pp-97-103, Sep, 2014.

### **Department :Physics**

Faculty: **Dr.DolanchampaSaha**

Electronic Circuit Simulation of The Lorenz Model With General Circulation:

D.C.Saha , A. Roy and A.Roy Chowdhury : International J of Physics ; 2014, Vol. 2, No.5, 124-128

### **Department :Economics**

Faculty: **Dr.Tapasree Banerjee**

Economy of India –Glimpses of various issues

A Study of the Effects of Fuel Consumption in a village of Nadia District

2013

## Department :Chemistry

Faculty: **Dr.SantarupaThakurta**

List of International publications:

1. A Series of Dicyanamide-Interlaced Assembly of Zinc-Schiff Base Complexes: Crystal Structure, Photophysical and Thermal Studies

M. Maiti, D. Sadhukhan, SantarupaThakurta, S. Roy, G. Pilet, R. J. Butcher, A. Nonat, L. J. Charbonnière, SamiranMitra

*Inorganic Chemistry*(Publisher: American Chemical Society).

51 (2012) 12176–12187.

2. Pseudohalide controlled assemblies of copper-Schiff base complexes with encapsulated sodium ion: synthesis, crystal structure and computational studies

M. Maiti, D. Sadhukhan, SantarupaThakurta, S. Sen, E. Zangrando, R. J. Butcher, R. C. Deka, SamiranMitra

*European Journal of Inorganic Chemistry* (Publisher: Wiley-VCH).

(2013) 527-536.

3. Thermally stable luminescent zinc–Schiff base complexes: A thiocyanato bridged 1D coordination polymer and a supramolecular 1D polymer

MonamiMaiti, SantarupaThakurta, DipaliSadhukhan, Guillaume Pilet, Georgina M. Rosair, AlineNonat, Loïc J. Charbonnière, SamiranMitra

*Polyhedron* (Publisher: Elsevier)

65 (2013) 6-15.

4. Synthesis, structural characterization, theoretical calculations and catecholase mimetic activity of manganese-Schiff base complexes

MonamiMaiti, DipaliSadhukhan, SantarupaThakurta, EnnioZangrando, Guillaume Pilet, Antonio Bauzá, Antonio Frontera, BülentDede, SamiranMitra

*Polyhedron* (Publisher: Elsevier)

75 (2014) 40-49.

5. Catalytic Efficacy of Copper(II)- and Cobalt(III)-Schiff Base Complexes in Alkene Epoxidation

MonamiMaiti, DipaliSadhukhan, SantarupaThakurta, EnnioZangrando, Guillaume Pilet, Sandra Signorella, SebastiánBellú, SamiranMitra

*Bulletin of the Chemical Society of Japan,*

[Advance Publication] Released: April 04, 2014.

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